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## VOLUMEN VII

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MIRABANTUR AMICI ET COLLABORATORES TANTAM OPERUM LABORUMQUE MAGNITUDINEM ET DIVERSITATEM; OMNIBUS PERSUASUM ERAT VIRUM TANTUM MAGNI INGENII FIRMAEQUE SALUTIS HAEC PERFICERE POSSE.

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LATINA LINGUA, QUAM ILLE SEMPER DILEXIT, NOMEN EIUS OMNIUM TRADAT IN MEMORIAM.

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# ABBREVIATIONES

**a.** - annus, anno, année, an, año
**Aardr.** - Aardrijkskundig
**Abb.** - Abbildungen
**Abh.** - Abhandlung(en)
**Abt.** - Abteilung
**Acad.** - Academia, Académie, Academy
**Accad.** - Accademia
**Akad.** - Akademia, Akademie, Akademi, Akademiîa; Akademische
**Algol.** - Algologique
**Amer.** - America; American, Americano
**Anat.** - Anatomia, Anatomie, Anatomy; Anatomico(a), Anatomique, Anatomical, Anatomisch
**Anatom.** - Anatomistes
**Ann.** - Annales, Annali, Annals, Annaler, Annalen, Anais, Analele; Annuel, Annual
**Annot.** - Annotationes, Annotations
**Annu.** - Annuario, Annuaire
**Anu.** - Anuario
**Anz.** - Anzeiger
**App.** - Appendice, Appendix
**Aquicult.** - Aquiculture
**Arb.** - Arbok
**Arbeit.** - Arbeit(en)
**Arch.** - Archivium, Archivio, Archive(s), Archiv, Archivo
**Ark.** - Arkiv(et)
**Arsb.** - Arsbok
**Arsber.** - Arsberetning
**Assoc.** - Associazione, Association
**Astron.** - Astronomia, Astronomie, Astronomy; Astronomico(a), Astronomique, Astronomical, Astronomisch
**Austr.** - Australian

**Bacteriol.** - Bacteriology, Bacteriologie; Bacteriological, Bacteriologisch
**Bactériol.** - Bactériologie; Bactériologique
**Batteriol.** - Batteriologia; Batteriologico(a)
**Begr.** - Begründet
**Beitr.** - Beitrag, Beiträge
**Ber.** - Bericht(e)
**Biol.** - Biologia, Biologie, Biology; Biologico(a), Biologique, Biological, Biologisch, Biologisk
**Bl.** - Blatt, Blätter
**Bol.** - Boletim, Boletin
**Boll.** - Bollettino
**Bot.** - Botanica, Botanique, Botany, Botanik; Botanical, Botanisch, Botanisk
**Brit.** - Britain; British
**Bul.** - Buletin, Buletinul
**Bull.** - Bulletin, Bulletijn, Bulletino
**Bur.** - Bureau

**Calif.** - California
**Camp.** - Campagnes
**Canad.** - Canadian
**Cat.** - Catalana
**Centr.** - Centrale, Central(e)
**Chem.** - Chemistry; Chemical
**Cienc.** - Ciencias
**Circul.** - Circulaire, Circular
**Cl.** - Classe
**Col.** - Colonie, Colony; Colonial(e)
**Coll.** - Collegio, Collège, College
**Comit.** - Comitato
**Comm.** - Committee, Commission
**Commiss.** - Commissioner
**Comp.** - Comparata, Comparée, Comparative
**Conf.** - Conferentia, Conferenza, Conférence, Conference
**Congr.** - Congresso, Congrès, Congress, Congreso
**Cons.** - Consiglio, Conseil
**Contr.** - Contribution(s)
**Corr.** - Corriere
**C. R.** - Compte(s) Rendu(s)
**Cult.** - Cultura

**Direct.** - Direction, Directorate
**Dpt.** - Department
**Dtsch.** - Deutsch

**Econ.** - Economia, Economie, Economy
**Edit.** - Editore, Editeur, Editor
**Engl.** - English
**Eng.** - Engineer; Engineering
**Entomol.** - Entomology
**Erdk.** - Erdkunde
**Ergebn.** - Ergebnisse
**Españ.** - Español(a)
**Exp.** - Expérimentale, Experimental
**Exped.** - Expedition(s)
**Expéd.** - Expédition(s)
**Expl.** - Exploration(s)

**Fac.** - Facoltà, Faculté, Faculty
**Fenn.** - Fennica
**Fig.** - Figura(e)
**Fis.** - Fisica, Fisiche, Fisicas
**Fisch.** - Fischerei
**Fischerb.** - Fischerbote
**Fischereibl.** - Fischereiblatt
**Fischwirtsch.** - Fischwirtschaft
**Fish.** - Fishery, Fisheries; Fishing
**Fisiol.** - Fisiologia; Fisiologico(a)
**Fisk.** - Fiskeri
**Fol.** - Folia
**Foramin.** - Foraminifères; Foraminiferal
**Forh.** - Forhandlinger
**Förh.** - Förhandlingar
**Forsch.** - Forschung(en)
**Fragm.** - Fragmenta
**Franç.** - Français

**Gaz.** - Gazette
**Gen.** - Generale, General; Genootschap
**Gén.** - Général
**Geod.** - Geodesia, Geodesy, Geodäsie; Geodetico, Geodetical, Geodätisch
**Géod.** - Géodésie; Géodésique
**Geof.** - Geofisica, Geofisico
**Geogr.** - Geographia, Geografia, Geography, Geographie, Geografiia; Geografico(a), Geographical, Geographisch, Geografisk, Geograficeskîi
**Géogr.** - Géographie; Géographique
**Geol.** - Geologia, Geology, Geologie, Geologiia; Geologico(a), Geological, Geologisch, Geologiskîi
**Géol.** - Géologie; Géologique
**Geoph.** - Geophysics; Geophysic(al), Geophysisch
**Géoph.** - Géophysique
**Ges.** - Gesellschaft
**Gesch.** - Geschichte; Geschichtlich
**Giorn.** - Giornale
**Govmt.** - Government

**Handb.** - Handbuch
**Handl.** - Handlingar
**Hidrogr.** - Hidrografinen
**Hist.** - Historia, Histoire, History; Historique, Historical, Historisch
**Histol.** - Histologie, Histology; Histologique, Histological, Histologisch
**Hrsg.** - Herausgegeben
**h. t.** - hors texte
**Hydrobiol.** - Hydrobiologie; Hydrobiologica, Hydrobiologique
**Hydrogr.** - Hydrographie, Hydrography; Hydrographique, Hydrographic(al), Hydrographisch
**Hydrol.** - Hydrologie, Hydrology; Hydrologique, Hydrologic(al), Hydrologisch

**Ichtyol.** - Ichtyologie, Ichtyology; Ichtyologique, Ichtyological, Ichtyologisch
**Idrobiol.** - Idrobiologia; Idrobiologico(a)
**Ill.** - Illustrazione, Illustration(s)
**Imp.** - Imperial, Impérial
**Ind.** - Industria, Industrie, Industry; Industriale, Industriel(le), Industrial, Industriell
**Inst.** - Institut, Institute, Instituto, Instituut, Institutt
**Instit.** - Institution
**Int.** - Internazionale, International(e)
**Invest.** - Investigation(s)
**Ist.** - Istituto
**Istol.** - Istologia; Istologico(a)
**Ital.** - Italia; Italica, Italiano(a)
**Ittiol.** - Ittiologia; Ittiologico(a)
**Izv.** - Izvêstiia

**Jahresber.** - Jahresbericht(e)
**Jap.** - Japonica, Japonenses, Japonaise, Japanese
**Journ.** - Journal

**Kgl.** - Kongelig
**Kl.** - Klasse
**Kol.** - Kolonie ; Kolonial
**Komm.** - Kommission
**Kon.** - Koninklik
**Königl.** - Königlich
**Kungl.** - Kunglig

**Labor.** - Laboratorium, Laboratorio, Laboratoire, Laboratory
**Lám.** - Lámina(s)
**Lett.** - Lettere, Lettres
**Linn.** - Linnéen(ne), Linnean

**Magaz.** - Magazin, Magazine
**Malacol.** - Malacologia, Malacologie, Malacology ; Malacologico(a), Malacologique, Malacological
**Mar.** - Marina(o), Marine, Marinara
**Marit.** - Maritime
**Maritt.** - Marittimo(a)
**Matem.** - Matematica
**Mathem.** - Mathematics, Mathematik, Mathematic(al), Mathematisch
**Mathém.** - Mathématique
**Med.** - Medicina, Medicine, Medizin ; Medico(a), Medical, Medizinisch
**Méd.** - Médecine ; Médical(e)
**Medd.** - Meddelanden, Meddelelser
**Meded.** - Mededeelingen
**Mem.** - Memoranda, Memoria(e), Memoirs, Memorial, Memorias
**Mém.** - Mémoire(s)
**Meteorol.** - Meteorologia, Meteorology, Meteorologie, Meteorologîia ; Meteorologico(a), Meteorological, Meteorologisch, Meteorologisk, Meteorologiceskîi
**Météorol.** - Météorologie ; Météorologique(s)
**Microsc.** - Microscopie ; Microscopique, Microscopical
**Mikrosk.** - Mikroskopisch
**Minist.** - Ministero, Ministère, Ministry, Ministerium
**Miscell.** - Miscellaneous
**Mitt.** - Mitteilung(en)
**Mus.** - Museo, Muséum, Musée, Museum, Museu

**Nac.** - Nacional
**Nachr.** - Nachricht(en)
**Nat.** - National(e)
**Natur.** - Naturale, Naturel(le), Natural, Naturales
**Natural.** - Naturaliste, Naturalist
**Naturhist.** - Naturhistorisch, Naturhistorisk
**Naturv.** - Naturvidenskapelig, Naturvetenskaplig
**Naturwiss.** - Naturwissenschaft(en) ; Naturwissenschaftlich
**Naut.** - Nautico(a), Nautique, Nautical, Nautisch, Nautisk
**Naz.** - Nazionale
**Ned.** - Nederland, Nederländisch, Nederlandsch

**Néerl.** - Néerlandais(e)
**Norw.** - Norwegian
**Novit.** - Novitates

**Observ.** - Observatoire, Observatory, Observer, Observatorium, Observatorio
**Occas.** - Occasional
**Oceanogr.** - Oceanografia, Oceanography; Oceanographica, Oceanografico(a), Oceanographic(al), Oceanograficeskij
**Océanogr.** - Océanographie ; Océanographique
**Oesterr.** - Oesterreich ; Oesterreichisch
**Off.** - Office ; Officiel(le), Official, Offisiell
**Osserv.** - Osservatorio

**Palaeobiol.** - Palaeobiologia, Palaeobiologie ; Palaeobiologica, Palaeobiologisch
**Palaeontogr.** - Palaeontographia, Palaeontographie
**Palaeontol.** - Palaeontologia, Palaeontologie ; Palaeontologisch
**Paleontol.** - Paleontologia, Paleontology ; Paleontologico(a), Paleontological
**Paléontol.** - Paléontologie ; Paléontologique
**Parasitol.** - Parasitologie, Parasitology
**Parassitol.** - Parassitologia
**Pathol.** - Pathologie, Pathology ; Pathologique, Pathological
**Pêch.** - Pêcheries
**Perm.** - Permanent(e)
**Pescher.** - Peschereccio
**Philipp.** - Philippine
**Phys.** - Physique, Physics, Physik ; Physical, Physisch
**Physiol.** - Physiologia, Physiologie, Physiology ; Physiologique, Physiological, Physiologisch
**Piscicult.** - Piscicultura, Pisciculture
**pl.** - planche, plate
**Pol.** - Polonais(e), Polish, Polisch
**Pont.** - Pontificia
**pp.** - pagine, pages
**Proc.** - Proceedings
**Profess.** - Professionale, Professionnel, Professional
**Protistenk.** - Protistenkunde
**Protistol.** - Protistologia, Protistologie, Protistology
**Pr.-Verb.** - Procès-Verbal (Verbaux)
**Pubbl.** - Pubblicazioni
**Publ.** - Publication

**Quart.** - Quarterly
**Queensl.** - Queensland

**R.** - Reale, Regia, Royal(e)
**r.** - rekke
**Rapp.** - Rapporto, Rapport
**Rass.** - Rassegna
**Rec.** - Record(s)
**Rech.** - Recherches
**Rend.** - Rendiconto(i)
**Rep.** - Report(s)
**Res.** - Results
**Rés.** - Résumé
**Résult.** - Résultats
**Resúm.** - Resúmenes
**Rev.** - Revue, Review, Revista
**Ric.** - Ricerca
**Riun.** - Riunione
**Riv.** - Rivista
**Russ.** - Russian, Russisch

**S.** - Seite
**S** - South
**Sällsk.** - Sällskap
**Sc.** - Scientia, Scienza(e), Science(s)
**Scient.** - Scientifico, Scientifique, Scientific
**Selsk.** - Selskab
**Senckenb.** - Senckenbergisch
**Ser.** - Serie
**Sér.** - Série
**Sitz.-ber.** - Sitzungsbericht(e)
**Skr.** - Skrift(er)
**Smiths.** - Smithsonian
**Soc.** - Societas, Società, Société, Society, Sociedad, Sociedade, Societatia
**Sper.** - Sperimentale
**Stat.** - Station(s), Stationary
**Statist.** - Statistica, Statistics, Statistik ; Statistique, Statistical, Statistisch, Statisticeskîi, Statistikk
**Staz.** - Stazione
**Suppl.** - Supplemento, Supplément, Supplement

**Tabl.** - Table(s), Tableaux
**Taf.** - Tafel(n)
**Talassogr.** - Talassografico
**Tav.** - Tavole
**Techn.** - Technique(s), Technical
**Thalassogr.** - Thalassographique
**Tijdschr.** - Tijdschrift
**Trab.** - Trabajos
**Trans.** - Transactions
**Trav.** - Travail, Travaux

**Univ.** - Universitas, Università, Université, University, Universität, Universidad, Universidade, Universitet
**U. S.** - United States

**Ver.** - Verein
**Verh.** - Verhandelingen, Verhandlungen
**Veröff.** - Veröffentlichungen
**Vgl.** - Vergleichende
**Vidensk.** - Videnskabelig

**Wetensch.** - Wetenschap ; Wetenschappelijk
**Wirtsch.** - Wirtschaft
**Wiss.** - Wissenschaften, Wissenschaftlich

**Zap.** - Zapiski
**Zool.** - Zoologia, Zoologie, Zoology; Zoologica, Zoologique, Zoological, Zoologisch, Zoologiceski
**Ztg.** - Zeitung
**Ztrbl.** - Zentralblatt
**Ztschr.** - Zeitschrift

(—) - Dello stesso autore, Du même auteur, Of the same author, Von demselben Verfasser, Del mismo autor etc.

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Generalia

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# I.

# GENERALIA NAVIGATIO.

## Navigationis historia - Itinera.

**Anderson R. C.** - The Bursledon Ship [*Navis ad* Bursledon *pertinens*]. 10 figs., 2 construction plans, Mar. Mirr., XX, 2, 158-170. London (1934). **a - 1**

Account on the investigations undertaken on an old wreck found in the Hamble River at the beginning of 1900. Detailed description and discussion as to its age.

**Ardley R. A. B.** - The Second Voyage of « Discovery II ». A Circumnavigation of the Southern Ocean [*Circumnavigatio australium marium a* Discovery II *suscepta*]. 3 figs., Mar. Obs., XI, 113, 9-12. London (1934). **a - 2**

**Aubert de la Rue Edgard** - Voyage aux Iles de la Désolation (Iles Kerguelen) [*Navigatio ad insulas* Kerguelen]. Le Globe, LXII, 12-13. Genève (1933). **a - 3**

Résumé du rapport lu par l'A. au cours d'une séance de la Société de Géographie Suisse sur la conformation, la morphologie, la géologie et la vie aux Iles Kerguelen.

**Ballard G. A.** - British Battleships of 1870. The « Audacious » [*Longae naves britannicæ a. 1870. De navi* Audacious]. 3 figs., 1 pl., Mar. Mirr., XX, 1, 5-23. London (1934). **a - 4**

Epoch of experiments under French influence with radical innovations as to offensive and defensive powers, proportions and measurements. Description and history of the « Audacious » ; comparison with the four other ships of the same epoch.

**Barlow Nora ed.** - Charles Darwin's Diary of the Voyage of H. M. S. « Beagle » [*Diarium navigationis in regia navi* « Beagle » *peractæ ad Carolum* Darwin *pertinens*]. maps, ills., The Macmillan Co., Univ. Press., xxx + 451 pp. New York & Cambridge (1933). **a - 5**

New complete edition of the diary, celebrating the centenary of Darwin's five-year voyage on the « Beagle ». The book contains some most important scientific items not previously published.

**Beonio V. & Brocchieri** - Dall'uno all'altro polo [*Agitur da navigatione quadam peracta a polo nordico ad polum merid.*]. 10 carte e 64 tav. in rotocalco, xi + 464 pp. Tip. Ind. Graf. Ital. Stucchi. Ulrico Hoepli Edit. Milano (1934). **a - 6**

Il volume diviso in tre parti comprende : 1°) Viaggio nell'inverno antartico ; 2°) traversata delle due Americhe ; 3°) verso l'estremo Nord.

**Bishop C. W.** - Chinese Voyages in the Indian Ocean in the Early Fifteenth Century [*De navigationibus Sinensibus in Oceanum Indianum in eunte seculo XV*]. Geogr. Rev., XXIV, 4, 672-674. New York (1934). **a - 7**

**Bisschop (de) Eric** - Chine : Lettre du capitaine..... et le Rapport n° 1 [*Sinensis Regio. Epistulae Navarcæ.... et relatio N° 1*]. 3 figs., 1 croquis, Géogr., Terre, Air, Mer, LXI, 5/6, 366-372. Paris (1934). **a - 8**

Lettre du capitaine de Bisschop qui avait fait construire une jonque pour parcourir avec plus de facilité, l'océan Pacifique de part en part, y visiter les terres mal connues, y rechercher s'il en existe encore d'inconnues et réaliser des recherches hydrographiques et ethnographiques. Description du voyage effectué suivie du I-er rapport scientifique sur la recherche du rocher indiqué sur les cartes marines comme étant par L. = 5°30' nord. G. = 122°03' est. (à suivre).

**Boxer C. R.** - Portuguese Roteiros, 1500-1700 [*Lusitanorum naves* Roteiros. *a. 1500-1700*]. Mar. Mirr., XX, 2, 170-186. London (1934). **a - 9**

The present article is largely based on the lecture of Commander Fontoura da Costa at the inauguration of the exhibition of the above mentioned boats held at the Naval College in Lisbon in January 1934. Origin and data. Different types dating from three different epochs of the sixteenth and seventeenth centuries. Publications having bearing on these boats.

**Brighwell L. R.** - On the Seashore (Discovery Books) [*Apud litora*]. viii + 119 pp., Thom. Nelson & Co. Ltd. Edinburgh & London (1934). **a - 10**

**Brindley H. H.** - Graffiti in Upper Deal Church [*Naves insculptæ ad ecclesiam in* Upper Deal *pertinentes*]. 2 figs., Mar. Mirr., XX, 2, 235-237. London (1934). **a - 11**

Short report on the discovery of three one-masted vessels with a square-sail incised on the early Norman pillars in the Upper Deal church. Dimensions, resemblances, dates.

**Brindley H. H.** - Naval Models in Edinburgh Castle [*Moduli navium in castello Edimburgensi*]. Mar. Mirr., XX, 2, 237-240. London (1934). **a - 12**

Description in chronological order of several models of ships from the Scottish history acquired by the recently established Military and Naval Museum in Edinburgh Castle.

**Bruhier P. J.** - La Canonnade de Chio en 1861. Identification d'un tableau du Musée de la Marine [*De agnitione cuiusdam picturæ ad Museum Maritimum pertinentis*]. ill., Ass. Amis Mus. de Marine, III, 11 et 12, 138-145, 154-162. Paris (1934). **a - 13**

Il existe au Musée une peinture à l'huile qui représente une escadre française du XVII siècle. L'auteur identifique ici les vaisseaux et en donne une description artistique.

**Cappi F.** - Le Repubbliche del Mare [*Respublicæ maritimæ*]. Licinio Cappelli. Bologna (1933). **a - 14**

**Carr G. G. Frank** - Surviving Types of Coastal Craft of the British Isles [*De veteribus naviculis litoreis ex insulis Britannicis*]. 2 pls., Mar. Mirr., XX, 2, 137-157. London (1934). **a - 15**

Lecture with lantern slides delivered on February 21st 1934 followed by discussion. The speaker emphasizes the urgent need of records of the old coastal types not having yet yielded the place to motor craft, and gives some suggestions how it can be done. Beginning with London River the Speaker proceeds along the British and Irish coasts describing and commenting the different types of craft met with.

**Chatterton Keble E.** - The Old East Indiamen [*De veteribus navibus Indiarum Orientalium*]. Rich & Corvan, Ltd. London (1933). **a - 16**

A complete picture of the mercantile fleet of once in the voyages to East India.

**Chatterton Keble E.** - To the Mediterranean in « Charmina » [*De navigatione per Mediterraneum navis* Charmina *nomine*]. 251 pp., Rich & Corvan, Ltd. London (1934). **a - 17**

**Chauvel Charles** - In the Wake of « The Bounty ». To Tahiti and Pitcairn Islands [*In rima navis* The Bounty. *Navigatio ad* Tahiti *et ad insulas* Pitcairn]. 152 pp., The Endeav. Press. Sidney (1933). **a - 18**

Description of a recent voyage to Tahiti and Pitcairn Islands with reminescenses of the mutiny on « The Bounty » (1789).

**Christiansen** - Les aventures des Capitaines Christiansen d'après leurs journaux de bord [*De fortunosis navigationibus a navisprœfectis* Christiansen *susceptis ex ephemeridibus navigationis*]. Payot. Paris (1933). **a - 19**

Histoire de navigation à voile et aventures de guerre. Un des deux frères était commandant de l'avion D. O. X.

**Curtis C. D.** - The Presence of Tromp during Blake's reduction of the Scilly Isles in 1651 [*Quæ* Tromp *egit cum insulas* Scilly *in dicionem submisit a. 1651*]. Mar. Mirr., XX, 1, 50-66. London (1934). **a - 20**

Account of the expedition under the leading of the Lieut.-Admiral of Holland Marten Harpertzoon Tromp, for claiming the return of the ships captured, and indemnification. The Resolutions of the States General dealing with Tromp's expedition are reproduced in extenso.

**Dawson R. Waren (Ed.)** - The Nelson Collection at Lloyd's: A Description of the Nelson Relics and a Transcript of the Autograph Letters and Documents of Nelson and his Circle and of other Naval Papers of Nelson's Period [*Collectio* Nelson *ad* LLoyd *pertinens. Descriptio reliquiarum Nelsonii cum transcriptione epistularum et documentorum ad Nelsonium eiusque collaboratores pertinentium. Adiunguntur communicationes navales œtate Nelsoniana*]. 21 pls., Macmillan & Co. Ltd. London (1932). **a - 21**

**Della Campana V.** - La crociera nord-atlantica del gruppo « Balilla » [*De navigatione per Atlanticum boreale*]. 9 fig., Riv. Maritt., a. LXVII, 1, 37-53. Roma (1934). **a - 22**

Campagna di due sommergibili italiani collaboranti alla crociera aerea trans nord Atlantico.

**Djakonov M. A.** - Reliques on Cape Tcheljuskin. Diary of Peter L. Tessem, Member of the « Maud »-Expedition [*De reliquiis ex Promunturio* Tscheljuskin. *Diarium ad Petrum* L. Tessem *pertinens qui socius fuit perdurante expeditione navis* Maud]. 1 fig., Bull. Arct. Inst., 11, 351-352, 391-392. Leningrad (1933). **a - 23**

Information of the discovery of the note-book of Peter L. Tessem, a member of the « Maud »-Expedition, found by the wintering party of the expedition of the Arctic Institute in the hut of the « Maud » on Cape Cheliuskin. The diary does not contain any new information but represents a very interesting relic referring to one of the episodes of the glorious cruise of the « Maud ».

**Domville - Fife Charles W.** - World Travels: a Full Description Narrative of Personal Travels in almost every Land and Sea and among the Peoples, both civilised and savage, of the Entire World [*De itineribus per orbem*]. 6 Vols: Vol. 1, xvi + 264 pp.; Vol. 2, xi + 256 pp.; Vol. 3, xi + 276 pp.; Vol. 4, x + 243 pp.; Vol. 5, xi + 245 pp.; Vol. 6, x + 230 pp. Virtue & Co., Ltd. London (1934). **a - 24**

**Doria Gino** - Cristoforo Colombo visto da un marinaio [*C. C. a nauta judicatus*]. Bemporad. Firenze (1934). **a - 25**

Traduzione italiana dell'opera di J. B. Charcot, Christophe Colombo vu par un Marin. (Flammarion. Paris (1928)).

**Fabietti A.** - Fram! Il viaggio polare di Nansen [Fram! *Iter ad polum a* Nansen *perfectum*]. (I grandi viaggi di esplorazione). 203 pp., 19 fig. e 1 carta, G. B. Paravia e C. Torino (1933). **a - 26**

**Farietti E.** - Cristoforo Colombo [*Christophorus Columbus*]. Vallecchi. Firenze (1933). **a - 27**

**Ferreira Raul Cesar (Director)** - Arquivo Histórico da Marinha [*Lusitanum historicum archivum Marinae*]. I, 1. Lisboa (1933). **a - 28**

Nouvelle publication portugaise qui apportera une documentation du rôle joué par le Portugal dans les grandes découvertes et dans la navigation en général. Dans le programme est prevue aussi une Bibliographie nautique.

**Goeje De C. H.** - Suriname ontdekt [*De inventa* Surinama] (Rés. français). 1 fig., 2 carte, Tijdschr. Kon. Ned. Aardr. Gen., LI, 1, 51-85. Leiden (1934). **a - 29**

La scoperta dell'America. La scoperta della Guyana: spedizioni di Raleigh, Dydley, Keymis ed altri: colonizzazione olandese, inglese, francese, portoghese alla fine del 1500. La scoperta di Surinam 1667-1860: L'inizio delle esplorazioni nell'interno, questioni di limiti. Compimento della scoperta, esplorazioni continuate dell'interno, misurazioni esatte, topografia (1861-1933).

**Hayes J. Gordon** - The Conquest of the South Pole [*De Polo merid. explorato*]. maps., diagr., ills., Th. Butterworth, 318 pp. London (1932). **a - 30**

This book may be considered as a continuation of and supplement to Dr. H. R. Mill's « The Siege of the South Pole », which carried the story down to 1905. The expeditions dealt with are the following: Shackleton, 1907-1909; Charcot's second expedition, 1911-1912; Mawson in the « Aurora » 1911-1914; Shackleton in the « Endurance », 1914-1916; Shackleton's last voyage, 1921-1922; Norwegian whalers, 1923-1927; and « Discovery » Committee 1923-1931; Wilkins, 1928-1930; Byrd, 1928-1930; Mawson and Riiser-Larsen, 1929-1931.

**Helland-Hansen** - F. Nansen. Over Grønland og Polhavet [F. Nansen. *Ad Groënlandiam et Maria polaria*]. carte, nombr. fig., dessins et pl., 914 pp., III. Oslo (1930-1932). **a - 31**

Récits complets des voyages d'exploration de Nansen dans les régions arctiques. Le livre de Nansen sur la vie des Esquimaux.

**Henderson G. C.** - The Discoverers of the Fiji Islands. Tasman, Cook, Bligh, Wilson, Bellingshausen [*De inventoribus insularum* Fiji. T. C. B. W. B.]. ills., Facsim., & maps., xviiii + 324 pp., John Murray. London (1933). **a - 32**

The present volume deals with the successive stages in the discovery of the group of the Fiji Islands, on hand of the journals of various explorers, so far as they concern Fiji, as well as the information gathered from Admiralty charts and personal acquaintance with the region.

**Hildebrand J. R.** - The Greatest Voyage in the Annals of the Sea [*Navigationes perlongæ apud annales nauticos*]. ill., Nat. Geogr. Mag., LXII, Dec., 609-739. Washington (1932). **a - 33**

Description of regions discovered by Magellan.

**Hobbs William Herbert** - Discovery of a New Sketch of Cape Hudson in the Antarctic [*Inventio novæ adumbrationis promunturii* Hudson *in Antarctica regione*]. 2 figs., Geogr. Rev., XXIV, 1, 115-117. New York (1934). **a - 34**

A brief review of the history of the exploration in the region of Hudson Cape, on hand of two sketches, one made on board the « Peacock » on January 16, 1840, and the other from the « Aurora » on November 23, 1915.

**Holland Rose J.** - The Mediterranean in the Ancient World. (transl. by C. King) [*Mare Mediterraneum antiquis temporibus*]. 180 pp., Univ. Press. Cambridge (1934). **a - 35**

See Jules Sottas: « A Review of Dr. J. Holland Rose's Book » The Mediterranean in the Ancient World », Mar. Mirr., XX, 3, 338-348, 1934, containing the résumé of the six chapters of the book.

**Jane Cecil** - Select Documents Illustrating the Four Voyages of Columbus [*Selecta documenta quæ inlustrant navigationes quattuor Columbianas*]. 260 pp., II, (Hakluyt Soc.) B. Quaritch Ltd. London (1933). **a - 36**

**Jensen Christian** - The Polar Ship « Maud », Brief History of Building and Description [*Polaris navis, nomine* Maud. *Brevior descriptio*]. 5 figs., on 2 pls. 1 plan of construction, Norw. North Pol. Exp. « Maud » 1918-1925, Scient Res., I, 2, 1-13. Bergen (1933). **a - 37**

After a description of the construction and building of the « Maud » also with regard to differences from the « Fram » and other ships the A. cites some passages from Amundsen and Wisting as to the behaviour of the ship through the pack-ice.

**Jesse L.** - More Trips around the World (E. P. C. Geography Readers Book 2) [*Itinera per orbem terraqueum*]. 176 pp., Educational Publ. Co. Cardiff & Wrexham (1934). **a - 38**

**Kahel Paul** - Die verschollene Columbus-Karte von 1498 in einer türkischen Weltkarte von 1513 [*De amissa tabula Columbiana a. 1498 in atlante Turcarum a. 1513 reperta*]. 9 Karten i. T., 1 Karte a. T., 52 S., W. de Gruyter, Berlin & Leipzig (1933). **a - 39**

Beschreibung einer vor kurzem im Serail von Konstantinopel entdeckten türkischen Weltkarte, deren grösster Teil scheinbar von Columbus selbst oder mindestens unter seiner persönlichen Leitung gezeichnet worden ist. Die Karte hat infolgedessen die grösste Bedeutung für die Geschichte der ersten Entdeckungsreisen nach Amerika.

**Koch Lauge** - The Danish Three-Year Expedition to King Christian X Land [*Dania expeditio per tres annos ad terram Regis* Christian X]. 3 maps., Geogr. Rev., XXIII, 4, 599-607. New York (1933). **a - 40**

Account of the organization and work of a three-year expedition sent out for the investigation of Central East-Greenland, now known as King Christian X Land. The expedition was organized with three main objects in view: the mapping of the area between latitudes 70° and 77° N., geological field-work for the purpose of elucidating many regional problems of broad interest, and an inquiry into the ability of the region to support an Eskimo population. Résumé of the typical weather throughout the year; account of the echo-soundings and hydrographic and marine-biological work. Triangulation and topographic work. Icebergs and glaciers. Archeological investigations.

**Lacoste L. & Quemard C.** - Les ports antiques de l'Algérie [*De veteribus portibus Algarinis*]. 33 pp., Soc. Ed. Géogr., Marit. & Colon. Paris (1933). **a - 41**

La Division Navale de Mauritanie. Le Port Militaire Romain de Césarée (Cherchell). Esquisse archéologique et historique d'après les découvertes et sondages plus récents. Catalogue méthodique des vestiges de ports antiques sur la côte nord-africaine.

**Lane Chapin Frederic** - Venetian Ships and Shipbuilders of the Renaissance [*Naves navalesque artifices ad Venetias pertinentes ætate renovationis Græcitatis et Latinitatis*]. John Hopkins Press. Baltimore (1934). **a - 42**

Organisation of Venetian arsenal (1300-1600), ships constructed, building methods, discipline of the workers.

**Lane Chapin Frederic** - Venetian Naval Architecture about 1550 [*Veneta navalis architectura (a. 1550)*]. 7 figs., Mar. Mirr., XX, 1, 24-49. London (1934). **a - 43**

The ship carpenter Pre Theodoro de Nicolò, his principal treatises on shipbuilding and some other manuscripts on the subject, parts of which are reproduced in extenso. Introduction of the use of the great galley, the great galleon, commercial ships.

**Le Conte Pierre** - Au sujet de « La Couronne » [*De navi* La Couronne]. 1 tabl., Assoc. Amis Musée Marine, I-er Bull. Trim., 106-110. Paris (1933). **a - 44**

Date de lancement. Mort prématurée du constructeur. Coque et emménagement. Détails d'accastillage. Mature. Artillerie.

**Lefranc Georges** - Les grands voyages de l'antiquité. Les Argonautes, Habnon, Himilcon, Sataspés Carausius, l'Atlantide [*De longis itineribus antiquis temporibus. Argonautæ: Habnon. Imilcon, Sataspes, Caraupius. De Atlantide*]. 3 carte h. t., x + 272 pp., Libr. Nouv. Rev. Naut. Paris (1933). **a - 45**

Essai de préciser les connaissances nautiques des anciens et de déterminer de manière probable les découvertes maritimes faites par les Phéniciens, les Egyptiens, les Carthaginois, les Grecs et les Romains. Le dernier chapitre donne l'histoire de la formation de la légende de l'Atlantide depuis Platon jusqu'à M. Scott Elliot.

**Lothrop S. K.** - Aboriginal Navigation off the West Coast of South America [*Navigatio aborigena longe a litoribus occidentalibus Americæ Australis*]. Journ. R. Anthr. Inst., 62, 229-256. London (1932). **a - 46**

Description of the basic types of aboriginal seagoing craft along the West coast of South America ranged from south to north, which do not only reflect the character of the country, its resources and the state of culture of the inhabitants but also throw some light on their migration.

**Magnaghi A.** - Incertezze e contrasti delle fonti tradizionali sulle osservazioni attribuite a C. Colombo intorno ai fenomeni della declinazione magnetica [*Studia magneticæ declinationis ad Columbum assignata*]. Boll. Soc. Geogr., Ottobre, 595-641. Roma (1933). **a - 47**

**Manning G. C.** - Yangtze [*Navigatio per flumen* Yangtze]. U. S. Nav. Inst. Proc., LX, 372, 221-229. Annapolis, Md. (1934). **a - 48**

Generalities in the navigation along the Yangtze-river. Interesting remarks and rules.

**Marulli Yoel** - Gli Italiani nei traffici e nelle scoperte marittime [*De Italis apud historiam maritimam et commercialem*]. F. Zappa. La Spezia (1933). **a - 49**

**Mill Hugh Robert** - The Return of the « Lively » in 1831 [*Reditus naviculæ* Lively *a. 1831*]. Geogr. Journ., LXXXIII, 3, 231-233. London (1934). **a - 50**

Reproduction of the interesting part of the early newspaper-notices referring to « Lively » the cutter of 50 tons, which under the command of Captain Avery accompanied the « Tula » in her voyage in the Antarctic, and was then lost out of sight in the ice and later found and reconducted to Bull Bay.

**Modzalevskij V.** - Conveyance of River Steamers from the Yenissey into the Lena River [*Transductio classis fluviatilis a flumine* Yenissey *ad* Lena] (In Russ. & Engl.). Bull. Arct. Inst., 1, 8-9, 33-35. Leningrad (1934). **a - 51**

Account of the voyage of two river steamers from Omsk to Yakutsk which covered a distance of 7700 km., of which 3200 by sea, including 1000 km through ice, under the conveyance of the ice-breaker « Krassin ».

**Muncaster Claude** - Rolling Round the Horn [*De promunturio* Horn *circumnavigato*]. ills., Chas. E. Lauriat Co. Boston (1933). **a - 52**

Narrative of the author's experience as a deck hand on a voyage from Melbourne to Cardiff via the Horn. Sailing ships and sailor's life described: hard work, discomfort, poor food and wages.

**Murray Marischal** - Ships and South Africa: A Maritime Chronicle of the Cape with particular Reference to Mail and Passenger Liners from the early Days of Steam down to the Present. With a Foreword by General the Rt. Hon. J. C. Smuts [*Progressus navigationis inter Europam et Africam Meridionalem*]. photos of over 300 vessels, Oxford University Press, Humphrey Milford. London (1933). **a - 53**

This work includes a hundred years of steam navigation from the arrival of the S. S. Enterprise in Table Bay in October 1825 to the advent of the M. V. Carnarvon Castle in August 1926. Some important dates in the history of the development of the Cape as an important point for navigation with a special view of the commercial lines passing here.

**Nippoldt A.** - Zur Geschichte des Kompasses [*Historia buxidæ. Res collectæ*]. Naturwiss., XXI, 16, 306-307. Berlin (1933). **a - 54**

**Noroit M.** - De Marseille à Toulon par les antipodes [*Navigatio a Massilia ad Telonem per Antipoda*]. 71 clichés, 179 pp., Soc. Ed. Géogr., Mar. & Col. Paris (1933). **a - 55**

Note de bord à propos des colonies françaises.

**Nunn George E.** - Magellan's Route in the Pacific [*Cursus maritimus Magallani per Oceanum Pacificum*]. 1 map., Geogr. Rev., XXIV, 4, 615-633. New York (1934). **a - 56**

The foregoing analysis of the various contemporary accounts of Magellan's voyage reveals a most marked discrepancy in regard to the route of Magellan's expedition in the Pacific. On the basis of investigations and discussion of earlier documents the A. here gives the probable track on a map.

**O'Brien Conor** - Voyage and Discovery [*Navigatio et inventiones*]. ills., Will. Blackwood & Sons, 276 pp. Edinburgh & London (1933). **a - 57**

Description of the voyage on board a sailing boat to Gibraltar, the Mediterranean coast of Spain, the Balearic Islands, and Algeria.

**Olsen Örjan** - La conquête de la terre. Histoire des découvertes et des explorations depuis les origines jusqu'à nos jours. Traduit du norvégien par E. Guerre [*Historia de inventionibus et explorationibus ab origine in hodiernum tempus*]. nombr. fig., Payot, vol. I & II. Paris (1933). **a - 58**

Histoire de la découverte de notre globe depuis les plus lointaines origines jusqu'à la fin du XII-ème siècle, depuis ce moment jusqu'à la mort de Vasco de Gama à Cochin à la fin de 1524 et puis jusqu'au retour de Cristophe Colomb de son premier voyage au Nouveau Monde.

**Pineghine N.** - Relics of Barents. Expedition Found on Novaja Zemlja [*Relicta expeditionis* Barents *inventa in* Novaja Zemlja]. (In Russ. & Engl.), 1 fig., Bull. Arct. Inst., 12, 423-424, 460. Leningrad (1933). **a - 59**

Discovery by the Expedition of the Arctic Institute during the summer 1933 of the remnants of Barents' hut and of some things which undoubtedly belonged to Barents' Expedition as well as of the rest of a small boat, the fragment of a roughly made oar and a harpoon of an obsolete type. The articles found have been handed over to the Arctic Museum.

**Rasmussen Knud** - Heldenbuch der Arktis [*Navigationes ad polos. Liber de heroicis navigatoribus per regiones Arcticas*]. aus: « Tjidschr. Kon. Ned. Aardr. Gen. », LI, 2, 261-264. Leiden (1934). **a - 60**

1. Der Zug nach dem Norden: Pytheas' Beschreibung einer Reise nach dem geheimnisvollen Thule, Die Fahrten des Wikings Ottar von Halogaland. 2. Erik der Rote (Rauda) und die erste Besiedlung Grönlands. 3. Zwischenspiel: Mittelalterliche Fabeleien, Berichte von Adam von Bremen, Nicolo Zeno. 4. Der Kampf um den Seeweg nach Indien: Teilnahme der Portugiesen an den arktischen Fahrten. Landung vom Engländer Hugh Willoughby. 5. Die Wiederentdeckung Grönlands. 6. Forschung und Walfang bei Spitsbergen. 7. Die Entdeckung der Hudsonbucht und der Weg über Grönland zur Nordwestpassage. 8, 9, 10: Edward Parry und seine Zeit und die Zeit John Franklins. 11, 12, 13, 14, 15: Wissenschaftliche Forschung statt Record und Abenteuer (Weyprecht's Plan die physischen Verhältnisse des Nordpols zu studieren.) 16, 17, 18, 19, 20. Die antarktische Forschung in älterer Zeit, die grossen internationalen Südpolarexpeditionen, die Entdeckung des Südpols.

**Reeve Sydney A.** - Ship Evolution and Social Evolution [*Evolutio navium et hominum*]. 9 figs., Geogr. Rev., XXII, 1, 61-76. New York (1933). **a - 61**

The argument here stated in condensed form is elaborated in the author's three-volume work, « The Evolution of Social Crises » now in manuscript. He claims that a broad study of history as a record of social evolution reveals the ship as one of the most dominant factors in her propulsion and guidance. The following problems are dealt with: Evolution of individual and society contrasted. The secret of Rome's greatness. The scene shifts to the Northwest. The evolution of the cog. Appearance of the carack. The ocean opened to mariners. European civilization revolutionized. The Elisabethian ship. Improvement of land communications. Georgian and Victorian ships. Modern facilities for navigation.

**Reynolds J. Richardson** - The Polar Medal. Additional Notes [*Numisma polare. Notæ additiciæ*]. Pol. Rec., 6, 132-133. Cambridge (1933). **a - 62**

(See: « Pol. Rec., nº 5, 1933). Two letters containing additional information on the history of the Polar Medal.

**Robinson Gregory** - The Great Harry [*Navis nomine* Great Harry]. Mar. Mirr., XX, 1, 85-92. London (1934). **a - 63**

Critical review of a lecture held by Mr. L. G. Carr Laughton (M. M. April 1931, pp. 174-180), on the ship « Henry Grace à Dieu » (the « Great Harry »). The A. does not agree with the pretended idea of the enormous dimensions of the ship nor with its early date of building.

**Rostovskij L. O.** - A travers la tempête de neige et contre les ondes [*De navigationibus per nivis tempestates et undas*]. Ills., Inst. Arct. U. R. S. S., 74 pp. Léningrad (1933). **a - 64**

Récit romancé mais très exact de la tragédie de l'équipage du chalutier allemand « Johannes Thode » qui a subi une avarie près de la côte de Mourmansk et dont l'équipage a été sauvé par le personnel d'une station polaire scientifique située non loin du lieu du naufrage auquel l'A. du livre eut part.

**Rouch J.** - Chateaubriand, Explorateur polaire [*C. polaris explorator*]. Rev. Scient., 22 Oct., 632-635. Paris (1932). **a - 65**

**Schiller Walter** - Primer centenario de la salida de Charles Darwin en el bergantin « Beagle » para el viaje al rededor del mundo. Con bibliografia geográfica-geológica [*De Carolo* Darwin *eiusque navigatione per orbem, centesimo recurrenti anno*]. Rev. Mus. de La Plata, XXXIII, 3ª ser. t. IX, 299-325. Buenos Aires (1932). **a - 66**

**Schurhammer G.** - Un'ipotesi sulla fine di Antonio Pigafetta [*Hypothesis de obitu Antonii* Pigafetta]. Boll. R. Soc. Geogr. It., X, 7/8, 488-497. Roma (1933). **a - 67**

**Serafini Renato** - L'evoluzione della nave attraverso i secoli [*Evolutio navis per sæcula*]. (III Corso Magistrale marittimo peschereccio). 22 pp., 15 fig., Soc. Tip. A. Manuzio. Ist. Poligr. dello Stato. Libreria. Roma (1933). **a - 68**

**Seymour Sewell R. B.** - The John Murray Expedition to the Arabian Sea [*Expeditio* John Murray *nomine ad Mare Arabicum*]. 4 figs., Nature, CXXXIII, 3366, 669-672. London (1934). **a - 69**

Voyage of the « Mobahiss » from Bombay on a traverse of the Arabian Sea to Mombasa, to Zanzibar and return to Colombo. Observations at 12 stations. Topography and bottom deposits. Hydrographic observations. Biology.

**Spender Michael** - The Sixth and Seventh Thule Expeditions of Knud Rasmussen [*Expeditiones sexta et septima* Thule *nomine a* Knud Rasmussen *perfectæ*]. 1 phot., Geogr. Journ., LXXXIII, 2, 140-142. London (1934). **a - 70**

The Sixth Thule expedition was rather a reconnaissance than an expedition in itself being an attempt to cross the coast of south east Greenland in small craft equipped with power, in the present case a Norwegian « skerry-racer », « Dagmar ». The seventh Expedition has been undertaken with a motorship, the « Sh. Stauning » carrying an airplane, with the aim of surveying and mapping the south east coast of Greenland.

**Spilbergen (van) Joris** - De reis van-naar Ceylon, Atgeh en Bantam 1601-1604 [*Navigatio ad* Ceylon, Atjeh *et* Bantam]. (Bewerkt door F. C. Wieder, F. W. Stapel e. a.), Cartes, illustr. 's-Gravenhage (1933). **a - 71**

**Stagg J. M.** - The British Polar Year Expedition to Fort Rae, North West Canada 1932-33 [*Expeditio ad* Fort Rae, North West Canada]. Nature, CXXXIII, 3362, 517-518. London (1934). **a - 72**

Brief description of the preparation of the expedition and of the work performed.

**Stefansson Vilhjalmur** - An Eskimo Discovery of an Island North of Alaska [*Inventio ab* Eskimo *cuiusdam insulæ in maribus nordicis Alaskianis*]. 3 figs., 1 map., Geogr. Rev. XXIV, 1, 104-114. New York (1934). **a - 73**

Account of the discovery made by the 10-ton power sloop « Takpuk » under command of her owner of the same name and with a crew of seven or eight Eskimos of an island, whose location appears to be near 71º20'N and 145º 30' W. Exploration in the region. Hypothesis of the origin of the island: Earth or floating ice? Identification of Takpuk's Island with Keenan Land? Significance of the discovery.

**Stejneyer Leonhard** - An Early Account of Bering's Voyages [*De vetere enarratione navigationum a* Bering *peractarum*]. Geogr. Rev., XXIV, 4, 638-642. New York (1934). **a - 74**

On the two expeditions of Bering to the Kamtchatka and the North East of Siberia. Danish translation of the first report of Waxell, second in command under Bering on the « St. Peter », by Peder von Haven, a young theologist who had the opportunity to go to Russia when the survivors of that unlucky expedition had come back.

**Stewart-Brown R.** - Liverpool Ships in the Eighteenth Century [*Naves ad* Liverpool *pertinentes XVIII sæculo*]. Hodder & Stoughton. London (1932). **a - 75**

Increase and decline of the shipbuilding industry from 1709 to about 1850. Notes on all the ships constructed here between 1711 and 1811.

**Sykes Percy** - A History of Exploration: from the Earliest Times to the Present Day [*Historia explorationum ab origine in hodiernum*]. 25 pl., xiv + 374, Routledge & Sons, Ltd. London (1934). **a - 76**

The Author draws the attention to the exploration of Asia, the continent in which most of his own journeys have been made. America and Australia are also summarised in comparison.

**T'Ien-Tsê Chang** - Sino-Portuguese Trade from 1514 to 1644. A Synthesis of Portuguese and Chinese Sources [*Sinense-Lusitanum commercium ab a. 1514 ad a. 1644. Synthesis fontum Lu-*

*sitanarum et Sinensium*]. Late E. J. Brill Ltd. Publisher. Leiden (1934). **a - 77**

Ch. I. An historical sketch of China's maritime trade down to 1513. Ch. II. The early Sino-Portuguese commercial relations. Ch. III. The expulsion of foreigners from China and the prohibition of foreign trade. Ch. IV. Trade or no trade. Ch. V. The rise of Macao. Ch. VI. The arrival of other Europeans in the far East and the position of the Portuguese. Ch. VII. Macao in days of tribulation and the stagnation of Sino-Portuguese trade.

**Van Balen W.-J.** - De ontdekking van de Wereld. Vol. I & II [*Historia inventionum. Vol. I et II*]. nombr. fig. & pl., 358 & 390 pp. « Elsevier ». Amsterdam (1932). **a - 78**

Histoire de la découverte du monde, dans laquelle on distingue deux phases, d'abord la période que l'on pourrait appeler celle des découvertes, puis celle d'exploration.

**Verwey D.** - Boats of Scandinavian Type in East Prussia [*Naviculæ scandinavæ in Orientali Borussia*]. 1 fig., Mar. Mirr., XX, 1, 113-114. London (1934). **a - 79**

Some reflections on the Peise fishing boats on the shores of the Frisches Haff as being probable survivors of the ancient Northern Viking boats « skeith » dating from a period of Viking invasions to the islands of the Kurische Nehrung. (See also M. M. XX, 2, p. 234).

**Waters E. G. R.** - An Old Italian Version of the Navigatio Sancti Brendani [*Vetus translatio in italicam linguam libri navigationis Sancti Brendani*]. 1 facs. Publ. Philol. Soc. N° 10, 86 pp., Humphrey Milford. London (1931). **a - 80**

**Wells Forrest H.** - The Chinese Mariners' Compass, Charts and Methods of Navigation [*De antiquis sinensibus buxidis, chartis et rationibus navigandi*]. 1 fig. on tabl., U. S. Nav. Inst. Proc., LX, 373, 359-368. Annapolis, Md. (1934). **a - 81**

The paper principally deals with the ancient Chinese compass giving also some hints of navigational methods and charts.

**Wendel G.** - A declinaçào magnetica no Brasil na epoca da descoberta [*Declinatio magnetica in Brasilia inventionum temporibus*]. 17 figs. et cart., Bol. Astr. Geophys., 29, VI, 61. Sào Paulo (1933). **a - 82**

**Williamson James A. (Edit.)** - The Observations of Sir Richard Hawkins. Edited from the Text of 1622 with Introduction, Notes and Appendices [*Observationes a* Sir. R. H. *peractæ. ab exemplare quodam a. 1622 cum introductione, notis et appendicibus per* James Williamson]. 4 maps, The Argonaut Press. London (1933). **a - 83**

In this new reprint some controversial points as to the authenticity of the outlines of « Australia » on maps of the « Descelier's » type, and the identification of « Hawkins' Maiden-land » with the Falkland Isles are discussed with reference to the article of Admiral Chambers in the October 1933 number of Mar. Mirr.

**Wordie J. M.** - The Polar Medal [*Numisma polare*]. 1 pl., Pol. Rec., 5, 57-61. Cambridge (1933). **a - 84**

History of the Polar Medal, whose first announcement was made in the « London Gazette » January 30, 1857, and which has been awarded in 1932 to the members of Mr. Watkins' British Arctic Air Route Expedition, 1930-1931.

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**Società (R.) Geografica Italiana** - Primo sommario commento alla Crociera Atlantica del Decennale [*Summarium prius de aëria navigatione per Atlanticum decimo recurrenti anno ætatis Fascium Italicorum*]. Boll. R. Soc. Geog. It., 7/8, 510-542. Roma (1933). **a - 85**

La R. Società Geografica ha avuto l'incarico di trasmettere i comunicati ufficiali radiofonici della Crociera Atlantica del Decennale: ciò che è stato fatto, ogni giorno di volo, via via che giungevano le notizie sulla tappa dal Comando della Seconda Squadra Atlantica. Per ogni tappa della Crociera il Presidente della R. Soc. Geogr. ha tenuto una breve conversazione alla radio, per un primo sommario commento della trasvolata. Si riportano i commenti.

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**C. S. - G. C.** - La crociera intorno all'Africa dei sommergibili « A. Sciesa » e « Toti » [*Navigatio speculatoria per Africam navium submergibilium* « *A. S.* » *et* « *T.* »]. Riv. Maritt., Anno LXVII, 7/8, 33-51. Roma (1934). **a - 86**

Condizioni meteorologiche. Considerazioni sulla navigazione. Considerazioni generali. La visita alle Colonie italiane.

**F. G.** - Grandi Uomini di Mare della Storia (Sec. XIII e XIV) Ruggero di Lauria, Jean de Vienne [*De claris viris apud historiam navalem*]. Riv. Cult. Mar., IX an., 9/10, 299-307. Roma (1934). **a - 87**

**G. G.** - Traces of the Expedition on the Vessel « Willem Barents » [*Vestigia expeditionis in navi* « *W. B.* »] (In Russ. & Engl.). Bull. Arct. Inst., 352-353, 390-391. Leningrad (1933). **a - 88**

Account of the discovery, made by the expedition sent in summer 1933 by the Arctic Institute to the northern part of Novaja Zemlja, of an inscription on the western island belonging to the little Oranina group which records the expedition on « Willem Barents » in 1594.

**An.** - Victory [*Victoria adepta*] (In Russ. & Engl.). 1 phot., Bull. Arct. Inst., IV, 1/2, 205-206. Leningrad (1934). **a - 89**

Account of the successful accomplishment of the operations of rescue of the Russian explorers from the wrecked s/s « Cheliuskin ».

**An.** - Some Letters of Admiral the Hon. Samuel Barrington [*Epistulæ quædam navarcæ* Hon. S. B.]. Mar. Mirr., XX, 1, 67-84. London (1934). **a - 90**

The letters dating from May 1781 to August 1799 are for the great part Memoranda in Admiral Barrington's handwriting concerning official orders, accounts of councils held, private intelligence communications and writings to private persons.

**An.** - The Eskimo Kayak [*De navicula* Kayak *nomine*]. 2 pl., Pol. Rec., 7, 52-62. Cambridge (1934). **a - 91**

The Eskimo kayak as a new element of arctic exploration. Its successful use on the two Watkins expeditions to East Greenland. The value of learning the art of kayaking by the Europeans for the aim of polar exploration. First description by Hans Egede in 1745 of Eskimo kayaks and the method of rolling them. The variation of the kayak according to various localities. Its use in the several regions of Greenland. Description of Eskimo hunting methods while kayaking. The construction and management of a kayak. Building a kayak. Rolling the kayak. The Eskimo method.

**An.** - Croisière du « Mikyane » en Corse. Août 1933 [*Expeditio a* Mikyane *perfecta in Corsicam. Mense Augusto 1933*]. nombr. croquis, Yachts & Yachting, 5-e an., 50, 65-74. Paris (1934). **a - 92**

Le Mikyane est un yacht pointu à moteur auxiliaire.

## Navigatio plana et litorea - Navigatio astronomica - Instrumenta - Tabulae - Ephemerides - Navigatio radiogoniometrica - Studia pro navigatione.

**Akiyosi Tosio** - Observation of « Dip of Sea Horizon » on Board the « Kasuga » [*Observationes a navi* Kasuga *perfectæ de depressione horizontis*]. Suiro Yôhô (Hydrogr. Bull.), 12, 1-6. Tokyo (1933). **a - 93**

A brief summary of the observations of the dip of the sea horizon which have been hitherto carried out by the Japanese Navy, followed by the account of the result of the same observation made by the author on board H. I. J. M. S. « Kasuga », at a height of about 15 m., on her round cruise from Yokosika to Zinsen, Caireu, Shanghai and return, in September-October, 1932 ; the instrument used has been a Pulfrich's Kimmtiefmesser. From the data obtained at 80 spots on the sea an extended summary is given. (See also : Jap. Journ. Astr. & Geoph., XI, 3, abstr. 135, 41. Tokyo 1934).

**Alocco Giulia** - Magnetoresistenza longitudinale e trasversale e struttura magnetica dei ferromagnetici [*Magnetoresistentia longitudinalis et transversalis ac magnetica structura ferromagnetorum*]. 14 fig., Nuovo Cim., nuova serie, a. X, 9, 355-371. Bologna (1933). **a - 94**

Le relazioni fondamentali tra resistenza elettrica e processi reversibili di magnetizzazione nei ferromagnetici vengono utilizzate per mettere in evidenza una distribuzione coordinata dei singoli momenti elementari in un materiale policristallino. La ricerca, eseguita su sottili lamine di *Ni*, ha condotto ad individuare il vero aspetto degli effetti di magnetoresistenza longitudinale e trasversale, mostrando come essi restino in tutti i casi affini a quelli dei monocristalli purchè, tenendo conto della rifrazione delle linee di forza, si consideri l'orientazione del campo interno e della corrente di misura rispetto a particolari direzioni di anisotropia che in questi fenomeni rivestono la funzione di direzioni di facile magnetizzazione. (Vedi anche : Atti R. Ist. Ven. Sc., Lett. ed A., Venezia, Tomo XCII, disp. 10ª, 1932-33, pag. 1353-1371).

**Armellini G.** - Il diametro orizzontale del Sole nel 1931, nel 1932 e nel 1933 [*Horizontalis diametros Solis a. 1931, 1932 et 1933*]. Atti R. Acc. Naz. Lincei. Rend. Cl. Sc. Fis., Mat. e Nat., serie VI, XIX, 5, 268-272. Roma (1934). **a - 95**

Il R. Osservatorio del Campidoglio, a Roma, fin dal 1876, osserva ogni giorno, al passaggio al meridiano, il diametro orizzontale del sole, onde possiede ormai una serie quotidiana di sessanta anni di misure, tutte eseguite con lo stesso metodo, simultaneamente, da tre o quattro astronomi, i quali si controllano a vicenda. Ora l'A. espone i risultati delle osservazioni eseguite al Campidoglio nel 1931, 1932 e 1933 rilevando che, dal 1931 al 1932 tutti e tre gli astronomi incaricati delle misure hanno trovato una diminuzione del raggio solare di circa nove centesimi di secondo d'arco, mentre dal 1932 al 1933 gli stessi astronomi hanno trovato, tutti e tre, un aumento di circa quindici centesimi di secondo. Termina riepilogando i risultati delle misure eseguite dal 1924 al 1933.

**Banachiewicz Tad** - Sur un problème de géophysique [*De problemate geophysico*]. Acad. Polon. Sc., et Lettres, C. R. mens. Cl. Sc. Math. et Nat., 9, 3. Cracovie (1933). **a - 96**

L'A. traite du problème de la détermination de l'altitude H au zénith du point éclairé par les rayons rasants du Soleil. On suppose nuls le diamètre du Soleil et la réfraction, mais on tient compte de l'aplatissement de la Terre. Après avoir déduit l'expression exacte de H, l'A. en tire l'expression approchée, exacte aux termes négligeables de l'ordre de $Hc^2$, $H = H_0 (1 + K)$, où $H_0$ est l'altitude H calculée pour la terre sphérique, et K signifie une petite quantité, mise en tables par l'A., et qui dépasse rarement 1/500 dans les latitudes moyennes. D'autre part $H_0 = \sec h - 1$ peut être obtenue à l'aide des tables connues des hauteurs du Soleil. Pour résoudre commodément le problème posé, on n'a donc pas besoin des tables étendues particulières, comme celles p. ex. qui ont été projetées par M. Jean Lugeon. (Org. Météorol. Int., 10, p. 253). (Aut.).

**Beams J. W.** - Measuring a Millionth of a Second [*De milionesima parte secundi temporis dimensa*]. Scient. Monthly. Lancaster (1934). **a - 97**

The author outlines two of the numerous methods used by the physicist for observing things that happen in extremely short times. The argument may interest the naval astronomer.

**Bonamico Giulio** - Cenni sommari sulla navigazione costiera [*De navigatione geodetica*] (III Corso Magistrale marittimo peschereccio), 20 pp., Ist. Poligr. dello Stato - Libreria Edit. Roma (1934). **a - 98**

**Brown (Edit.)** - Nautical Almanac [*Ephemeris nautica*]. many figs., tabl., 739 pp., Brown, Son & Ferguson. Glasgow (1934). **a - 99**

The well known almanac of Brown contains a great deal of information useful, or better, necessary to navigators.

**Buchanan Wollaston H. J.** - On Methods for Fitting Curves to Observations, with Details of Some New Methods [*De methodibus quibus utendum est ut curvæ cum observationibus coincidant. Adiunguntur res particulares de novis quibusdam rationibus*]. 4 tabl., James Johnstone Mem. Vol., 324-339. Liverpool (1934). **a - 100**

The author considers the following mathematical methods for fitting equations to data : the Method of Least Squares, the Methods of Lowest Mean Ratio. He shows where the new Methods of Lowest Mean Ratio fit in with other least squares methods and gives a guide as to the kind of cases where different methods of fitting curves can be most usefully employed.

**Buda V.** - Nuove tavole di distanze marine [*Novae tabulæ distantiarum marinarum*]. Tip. Elzeviriana. Genova (1933). **a - 101**

Ogni tavola ha l'intestazione redatta in 5 lingue. La consultazione è facile e pratica.

**Calichiopulo Antonio** - Qualche considerazione sulla precisione dei telemetri monostatici [*De telemetris monostaticis. Considerationes de eorum præcisione*]. Suppl. Tecn. Riv. Art. e Genio, 1, 57-96. Roma (1934). **a - 102**

L'A. essenzialmente tratta del confronto tra i monostatici a coincidenza e quelli stereoscopici, interpretando alcuni risultati di esperienze condotte con diligenza e rigore dal Comand. Montauti della R. Marina, e pubblicate sulla *Rivista Marittima*. Prende anche occasione, qua e là, per toccare alcuni punti della teoria degli errori che dànno spesso luogo a poco rigorose considerazioni. Addentrandosi nell'analisi delle esperienze del comand. Montauti e del Gramont, per condizioni poco favorevoli di luce, ricava dati oggettivi tutti favorevoli al monostatico stereoscopico, registrandoli in sei specchi numerici. Per ultimo l'A. tratta delle esperienze di controllo mettendo in evidenza inesattezze e qualche esagerazione teorica ingiustificata.

**Camperio F.** - Lo stabilizzatore Sperry [*De apparatu pro navium stabilitate* Sperry]. Arti Grafiche Bertarelli. Milano (1934). **a - 103**

**Celli Vincenzo** - Lezione di attrezzatura navale [*De navibus instruendis*]. (III Corso Magistrale marittimo peschereccio). 4 fig., 14 pp., Soc. Tip. A. Manuzio, Ist. Poligr. dello Stato - Libreria. Roma (1933). **a - 104**

**Chambers B. M.** - Infinite Inexactitude of Longitude in 1622 [*De infinitis erroribus in longitudine determinanda, a. 1622*]. Mar. Mirr., XX, 3, 376-378. London (1934). **a - 105**

Answer to an article of Prof. Taylor, published in the April N° of Mar. Mirr., which criticises the author's statement « that longitudes (in the early seventeenth century) were capable of almost infinite inexactitude «, showing the existence of many errors (in 1622) after years of experimental traverses.

**Chave Benjamin** - Radio Direction Finder [*Radiogoniometrum*]. 2 figs., Mar. Obs., XI, 113, 12-13. London (1934). **a - 106**

On an instrument designed by The Radiomarine Corporation of America for operation on the bridge by the Navigator, which is independent of the ship's Wireless outfit and the wireless operators. Bearings may be taken without interfering with other radio traffic and without delay.

**Chung-Chi Wang** - La navigation du Yangtseu [*De navigatione per flumen* Y.]. 53 fig. et cartes, 315 pp., Thèse Fac. Lettres, Les Presses Modernes. Paris (1932). **a - 107**

**Conrad Fr.** - Astronomische Ortsbestimmung und Kimmtiefenmessung auf See [*Astronomicæ observationes et mensuræ depressionis horizontis in mari*]. 9 Taf., 110 pp., E. S. Mittler & Sohn. Berlin (1933). **a - 108**

**Crone Ernst** - Le Flambeau Reluisant, Vertaling van Gietermaker's Vergulden Licht der Zeevart [*De vetere manuale navigationis*]. 1 Taf., pl. h. t., Vereen. Nederl. Hist. Scheepv. Mus. te Amsterdam Jaarversl. 1931 en 1932, 81-85. Amsterdam (1933). **a - 109**

Récension d'un manuel de navigation du 17-e siècle qui fut longtemps le manuel principal pour ceux qui devaient passer l'examen de maître de navire. L'A. cite deux autres oeuvres traduites du flamand en français en 1667, qui, selon son avis, sont des versions du manuel de Gietermaker.

**De Haan J.** - Correction of Radio Bearings [*Correctio in relevamentis goniometricis*]. Naut. Mag., n° Apr., 382. Glasgow (1933).

(—) See also: Intern. Hydrogr. Bull., 5, 98, 1933. Monaco (1933). **a - 110**

Reproduction of a diagram constructed by author in order to obtain, by eye, the correction to apply to a radio-bearing in order to get the mercatorian bearing. It is based on the following formula: Correction = Half diff. Long. × Sin. Mid. Lat.

**Downes O. L.** - Anchoring Diagrams [*Diagrammata ad ancoras ponendas*]. 4 figs. on tabl., U. S. Nav. Inst. Proc., LX, 371, 73-74. Annapolis, Md. (1934). **a - 111**

On the solution of the problem of anchoring in a designed spot. Four anchoring diagrams are given here on table, developed on board the U. S. S. Lexington for the use of that vessel. The problem is the establishing of the position of the ship by three cross-bearings. This is effected by stretching three strings from fixed objects at known measured angles of corresponding arcs and observing where the intersection of strings on the anchorage chart takes place.

**Duest C. S.** - The Diurnal Variation of Wind at Sea during the South West Monsoon [*Diurna variatio venti marini dum halitat ventus Indicus* S. W.]. 1 diagr., Mar. Obs., XI, 115, 104. London (1934). **a - 112**

**Estrada R.** - De la navigación astronomica [*De navigatione astronomica*]. Rev. Gen. de Marina, Agosto. Madrid (1934). **a - 113**

**Eversmann Th.** - Längenmessungen mit optisches Hilfsmitteln unter Tage [*Mensuræ distantiæ opticis instrumentis*]. 2 Abb., 5 Taf., Ztschr. f. Instrumentenkunde, 10. Okt., 350-365. Berlin (1934). **a - 114**

**Fanselau G.** - Der Doppelkompass als magnetisches Universalinstrument [*Duplex bussola magneticum universale instrumentum*]. Veröff. Met. Instr., 395, 132-136. Berlin (1933). **a - 115**

**Farwell Raymond F.** - The Law in Fog [*Regulamenta navigationis tempore caliginoso*]. U. S. Nav. Inst. Proc., LX, 376, 784-795. Annapolis, Md. (1934). **a - 116**

Discussion on general rules in navigation with fog. The A. concludes with Dr. Lushington, Admiralty jurist of England, that the duty of every master of a ship, whether in intense fog or great darkness, is to exercise the utmost vigilance and to put his vessel under command, so as to secure the best chance of avoiding all accidents, even though such precautions may occasion some delay in the persecution of the voyage. (See: discussion in the same number p. 833).

**Fraser R. J. & Smith Goulding F. C.** - Aides pour la navigation sur la route de la Baie d'Hudson [*Subsidia ferenda navigatoribus praeter cursum ad bajam* Hudson]. Rev. Hydrogr., XI, 1, 115-117. Monaco (Princ.) (1934). **a - 117**

Extrait d'un article publié dans « The Canadian Surveyor », p. 3, Juillet 1933. Ottawa.

**Gatch T. L.** - A Neglected Navigational Short Cut. [*De quodam brevi navigationis problemate neglecto*]. U. S. Nav. Inst. Proc., LX, 374, 532. Annapolis, Md. (1934). **a - 118**

The Author draws the attention to the simplicity and shortness of calculations for observations of bodies on the prime vertical. See discussion by Commander J. R. Oldendorf in the same number p. 545.

**Ghernet E. S.** - Cartes de navigation maritime et aérienne, avec coordonnées supplémentaires [*Tabulæ navigationis maritimæ et aëriæ, cum coordinatis supplementaribus*]. (En russe). 4 fig., 6 schémas, 1 carte, Zap. Idrogr., 5, 25-43. Leningrad (1933). **a - 119**

L'A. met en évidence sur la base d'exemples pratiques la nécessité d'une élaboration de cartes spéciales de navigation pour les régions polaires.

**Giliberto O.** - Una nuova formola per la Correzione di Givry [*Nova formula pro* Givry *correctione*]. 11 pp., Litogr., Camogli (1934). **a - 120**

L'A. consiglia per la correzione di Givry finora espressa dalla formola:

$$\gamma = \frac{\Delta\lambda}{2} \operatorname{seu} \varphi_m$$

un'altra:

$$\gamma = \frac{\Delta\lambda}{2} \operatorname{seu} \varphi$$

ove $\varphi$ è la latitudine del punto per cui viene richiesto il valore di $\gamma$. Egli ne dimostra i vantaggi di precisione.

Questa, del resto, è la espressione originale data dal Givry. (N. d. R.).

**Hawks Ellison** - The Starry Heavens [*Coelum sidereum*]. 154 pp., T. C. & E. C. Jack, Ltd. London (1934). **a - 121**

**Hennessy J.** - The Route from the Cape of Good Hope to Australia [*Cursus maritimus ad promunturium Bonæ Spei*]. Mar. Obs., XI, 115, 146-150. London (1934). **a - 122**

Some information on the choice of the route. Maury's recommended route. The clippers. The first steamers. The records. Influence of the gold. Meteorological and oceanographical conditions of south seas. Great circle routes.

**Hopkins H. V.** - New Uses for Martelli's Tables [*Ratio nova tabularum* Martelli]. U. S. Nav. Inst. Proc., LX, 375, 651-654. Annapolis, Md. (1934). **a - 123**

By making slight modifications of these well known tables and on hand of many examples the A. shows new methods of employing them for computing altitude, time and altitude azimuth, amplitude, great circle course and distance, identifying unknown stars and finding the local hour angle.

**Hormazábal Manuel** - Tabla de Logaritmos a cinco decimales [*Tabula logarithmorum quinque notis decimalibus*]. Memorial Técnico (Ejercito de Chile), 969-970. Santiago de Chile (1934). **a - 124**

Volumen de 212 páginas. El autor ha trazado, clasificandolas en orden excelente y en diferentes colores 6 Tablas que son de uso constante. En un capitulo « Explicaciones » figura una serie de problemas de uso corriente.

**Hubbard L. S.** - Réfraction observée sur le Georges Bank en 1931 [*De refractione observata apud banchum* Georges *a. 1931*]. Rev. Hydrogr., XI, 1, 118-119. Monaco (Princ.) (1934). **a - 125**

Extrait du « Bulletin of the Association of Field Engineers », U. S. Coast & Geodetic Survey, nº 5, p. 58, 1932. Compte rendu des observations faites sur le Georges Bank pour déterminer l'influence que pouvait avoir sur la réfraction la différence entre la température de l'eau de surface et celle de l'air à l'emplacement de l'observateur. Instruments employés, méthode d'observations. Résultats. Conclusions : Cause de l'insuffisance des résultats obtenus.

**Immler W.** - Beobachtungen mit Libellensextanten im Flugzeug [*Observationes in aëroplano per sextantem libella præditum*]. 1 Tab., 1 Taf. a T., Ann. d. Hydrogr., LXII, 4, 165-167. Berlin (1934). **a - 126**

Notwendigkeit eines künstlichen Horizontes für Beobachtung an Bord der Flugzeuge, wo der natürliche Horizont versagt. Dieser künstliche Horizont, der mindestens für die Zeitdauer der Beobachtungen die Horizontale zu garantieren hat, muss für diese Dauer präzessions- und schwingungslos sein.

**Keeton H.** - Fog [*De caligine*]. 3 figs., tabl., Mar. Obs., XI, 114, 62-65. London (1934). **a - 127**

Formation of fog. Theoretical explanation. Practical prediction. Tables for finding the relative humidity and the dew point.

**Kent M. C.** - Calling Your Shots of Sun and Stars [*De identificatione stellarum*]. 1 fig., U. S. Nav. Inst. Proc., LX, 372, 246-247. Annapolis, Md. (1934). **a - 128**

Discussion on a paper by Lieutn. Davis on page 1463, October 1933. The author takes the opportunity to give some general rules on the best choice of stars for observation.

**Kwasan Observatory (Zodiacal Light Section)** - Preliminary Report of Zodiacal Light Observations for the Second International Polar Year [*Relatio prior observationum lucis zodiacalis secundo anno polari*]. Kwasan Bull. 265. Kwasan, Japan (1933). **a - 129**

Summary of results : number of observers, total numbers of observations. Conclusions : 1) confirmation of the pulsations of brightness and variations of forms of zodiacal lights ; 2) correlation between rain, brightness of zodiacal lights and dryness of atmosphere ; 3) study of the zodiacal band ; composition of zodiacal light ; 4) small areas of luminous matter about the zodiac ; correlation with the Milky Way ; 5) faint bands in the northern sky ; their apparent relationship with permanent aurora ; 6) annual variations of forms of Gegenschein. (s. also : Jap. Journ. Astr. & Geoph., XI, 3, abstr. 102, 36 by Yamamoto, Tokyo 1934).

**La Porte Florian** - Sur l'emploi des relèvements radiogoniométriques à grande distance [*De relevamentis radiogoniometricis perlongis distantiis*]. C. R. Acad. Sc., XIIC, 5, 447-449. Paris (1934). **a - 130**

Une méthode s'appliquant à tous les cas, avec de calculs assez simples. L'auteur cherche en quel point l'arc du grand cercle correspondant à l'azimut mésuré rencontre un parallèle de latitude déterminée celle du point estimé. Il considère aussi le cas où le même grand cercle rencontre le méridien du point estimé.

**Lecocq G.** - Le Segment capable sphérique [*De segmento sphærico capace*]. ill., 16 pp., Imprim. Nationale. Paris (1933). **a - 131**

**Lippman (von) Edmund O.** - Geschichte der Magnetnadel bis zur Erfindung des Kompasses (gegen 1300) [*Historia acus magnetici usque ad inventionem buxidæ* (*circa a. 1300*)]. Quellen und Studien zur Geschichte der Naturwiss. und der Medizin, III, 1, 49. Berlin (1932). **a - 132**

Einleitung. China. Indien. Klassisches Altertum. Araber. Europa (unter Ausschluss des hohen Nordens). Der Name der Magnetnadel. Der europäische Norden. Zusammenfassung. Nachträge. Namen- und Sachenverzeichnis.

**Markin N.** - Application du Réseau goniométrique dans la Navigation [*Retia goniometrica ad navigationem applicata*]. Zap. po Gidrogr., 1, 11-14. Leningrad (1933). **a - 133**

**Mason A. William** - Page Captain Lecky [*In memoriam navarcæ* Lecky]. U. S. Nav. Inst. Proc., LX, 376, 754-760. Annapolis (1934). **a - 134**

Statistical note on the progress of the new methods of navigation in U. S. Navy from which it is seen that the majority of the officers (54 %) are still using the obsolete chronometer on time-sight in their daily work.

**Mateos J.** - Método rápido y fácil para calcular y dibujar una proyección de la esfera celeste sobre el horizonte [*Problemata cartographica*]. Mem. y Rev. Soc. Cient. « Antonio Alzate », LXI, 3/10. Mexico (1929-1930). **a - 135**

**Meier H.** - Ueber Normung von Kompassrosen [*De standardisatione quadrantis buxidæ*]. 4 Tab., Ann. d. Hydrogr., LX, 12, 483-486. Berlin (1932). **a - 136**

Ergebnisse von etwa 1000 in Bezug auf die magnetischen und mechanischen Eigenschaften der Kompassrosen angestellten Beobachtungen, um grössere Gleichartigkeit in der Herstellung gewinnen zu können.

**Métral A.** - Sur la précession dans le phénomène gyroscopique [*De præcessione in phæno-*

*meno gyroscopico*]. C. R. Acad. Sc., CIIIC, 25, 1582-1584. Paris (1934). **a - 137**

Démonstration simple du résultat auquel arrivent Halphen, à l'aide des fonctions elliptiques et Hadamard, par la voie des imaginaires sur la rotation précessionelle et sur son signe. L'A. reste dans le domaine réel et s'inspire de la démonstration de Puiseux relative au pendule sphérique.

**Michler Herbert** - Der Sphärant, ein Instrument zur direkten Beobachtung von Stundenwinkel oder Breite [Sphaerant, *instrumentum ad observationes directas anguli horarii et latitudinis peragendas*]. 2 Abb., 1 Taf. a T., Ann. d. Hydrogr., LXII, 1, 26-30. Berlin (1934). **a - 138**

Ausführlicher und ergänzender Bericht zu den Ausführungen von H. B. Kaster in « The Hydrographic Review », VIII, 2, über ein Instrument, das die direkte Beobachtung von Stundenwinkel oder Breite gestattet. Das Instrument — Sphärant genannt — scheint geeignet zu sein, eine völlige Umwälzung in der Methode der astronomischen Ortung herbeizuführen. Instrumentelle Einrichtung, Beobachtungsmethode und Handhabung des neuen Instruments, auf die in Deutschland gebräuchlichen Begriffe und Formen umgestellt.

**Michler Herbert** - Kimmtiefenmessungen auf D. « Arucas » im Mai 1933 [*Mensuræ depressionis horizontis a navi* Arucas (*a. 1933*) *perfectæ*]. 3 Tab., 1 Taf. a. T., Ann. d. Hydrogr., LXII, 5, 208-214. Berlin (1934). **a - 139**

Ergebnisse der auf Veranlassung der Marineleitung vom Vf. auf einer Reise nach den Kanarischen Inseln ausgeführten Kimmtiefmessungen, die einmal zu Vergleichszwecken für Beobachtungen mit dem Libellensextanten dienten.

**Moutt Luis** - Algunas aplicaciones prácticas de interpolación [*De interpolatione*]. tablas, Memorial Tecnico (Ejército de Chile), 941-955. Santiago de Chile (1934). **a - 140**

Analisis para deducir las fórmulas de interpolación mas necesarias y importantes. Continuarà.

**Mori-Ubaldini** - Un nuovo metodo per il tracciamento della Retta d'Azimut [*De recta azimuthali*]. Ann. Ist. Sup. Nav., II, 2, Napoli (1933). **a - 141**

L'A., premessi alcuni cenni storici sull'argomento, considera un metodo di tracciamento prendendo come punto determinativo il punto d'incontro dell'azimut stimato con la curva d'azimut relativa all'osservazione.

**Musella P.** - La condotta della navigazione nelle tempeste [*De navigatione per tempestates*] (III Corso Magistrale marittimo peschereccio). 3 fig., 15 pp., Soc. Tip. A. Manuzio. Ist. Poligr. dello Stato - Libreria. Roma (1933). **a - 142**

**Musella Pietro** - Autocalcolatore Musella [*Apparatus autocalculator* Musella]. 2 fig., Filotecnica, 6, 278-280. Milano (1933). **a - 143**

È noto che i calcoli di navigazione stimata e costiera consistono nella soluzione degli elementi di triangoli piani rettangoli, le cui operazioni richiedono l'uso dei logaritmi e delle speciali tavole nautiche del punto. L'A., descritto lo strumento che risolve meccanicamente tutti questi problemi, illustra alcuni esempi di calcoli tipici che si possono prontamente risolvere per suo mezzo.

**Nakano Saburo** - Report of the Observations with the Meridian Cycle at The Tokyo Astronomical Observatory [*Observationes in cyclum meridianum in Observatorio astronomico in* Tokyo]. (In Jap.). Astr. Obs. Rep., 1, 69-78. Mem. Astr. Soc. Jap., 2, 79-88. Tokyo (1933). **a - 144**

Preliminary observations with the meridian cycle (3 m focal length and 205 mm. aperture) in December 1932. Twenty-two fundamental stars and the planets, Mars, Jupiter, and Neptune, have been observed during this time. The results compared with the Ephemerides prove to be satisfactory. (K. H., Jap. Journ. Astr. & Geoph., XI, 3, abstr., 29, Tokyo 1934).

**Nowak K.** - Himmels- Atlas in 9 Kartenblättern für den Bereich von Nordpol bis + 20° Deklination [*Coeli atlas. Declinationes + 20° ad + 90°*]. 9 pl., Dümmler Ferdinand. Berlin (1934). **a - 145**

**Parker Ralph C.** - Evaluating a Series of Bearings [*Examen cuiusdam seriei relevamentorum*]. U. S. Nav. Inst. Proc., LX, 371, 79. Annapolis, Md. (1934). **a - 146**

The Author advises to take as many radio bearings as practicable when in thick weather and to conclude from the evidence of several rather than on that of only two of them. He tries to solve the problem : How to evaluate this evidence ?

**Perlewitz Paul** - Zwei wissenschaftliche Ballonfahrten von Hamburg 1933/34 mit meteorologischen und bakteriologischen Untersuchungen, Versuchen mit einem neuen Kompass, Bestimmungen der Grösse der Wolkenelemente und kalorimetrischen Feuchtigkeitsmessungen [*Observationes meteorologicæ et bacteriologicæ in sphærico apud* Hamburg. *Experimentum buxidæ novæ etc.*]. 2 Abb., 2 Tab., Ann. d. Hydrogr., LXII, 9, 383-391. Berlin (1934). **a - 147**

Bericht über die zwei am 9. März 1933 und am 28. Februar 1934 unternommenen Ballonfahrten mit besonderer Berücksichtigung der Ergebnisse der meteorologischen Beobachtungen, der bakteriologischen und kolloidchemischen Luftuntersuchungen und kalorimetrischen Feuchtigkeitsbestimmungen, welche im Laufe der Fahrten ausgeführt worden sind. Ausserdem ist die Brauchbarkeit einer neuen Methode zur Messung der Grösse der Wolkenelemente in der Höhe nachgewiesen worden. Erprobung eines Luftfahrzeugkompasses, der gute Resultate gegeben hat.

**Pinto J. Carlos** - The « Simplex » Navigation & Avigation Tables [*Tabulæ navigationis maritimæ et aëriæ* Simplex *nomine*]. xxxii + 376, Oficina de Artes Graficas Fayal. Açores (1933). **a - 148**

These tables are the daughters of « Modern Navigation Tables » of the present author and Newton. They belong to the kind of tables with *assumed position*, but in these the assumed coordinates are near to the dead reckoning at a distance less than 15 miles. There are numerous auxiliary tables.

**Prato V.** - A proposito della determinazione automatica degli elementi della navigazione [*De elementis navigationis per instrumenta gyroscopica deductis*]. 2 fig., Riv. Maritt., Anno LXVII, 3, 289-292. Roma (1934). **a - 149**

L'A. ribatte alcune osservazioni fattegli a riguardo del suo lavoro, in proposito, del fascicolo di febbraio 1933.

**Puppo Agostino** - Un interessante procedimento grafico per il calcolo dell'altezza del Sole [*Graphica ratio ad agendum calculum altitudinis Solis*]. 1 fig., Meteor. pratica, 3, 137-142. Perugia (1933). **a - 150**

L'A. espone un metodo di determinazione grafica dell'altezza del sole sull'orizzonte a un istante qualsiasi, metodo dovuto al dott. K. Schütte. Dà le istruzioni e le costanti per la costruzione dell'abaco relativo, il quale può essere rapidamente tracciato ove si disponga di carta a graduazione sinusoidale. L'abaco può anche servire, con qualche variante nell'orditura della carta, per il rapido apprezzamento della durata del crepuscolo civile ed astronomico.

**Razikotsicas** - Astronomikai Ephemerides [*Ephemeris nautica*]. Ephém. & tabl., Service Hydrogr. Marine Hellénique. Athènes (1932). **a - 151**

La présente publication conserve sensiblement la même disposition que les années précédentes pour les diverses éphémérides et tableaux. A sa fin se trouve une liste des cartes et ouvrages publiés par le Service Hydrographique Hellénique.

**Repsold A. & Freiesleben H. C.** - Astronomische Ephemeriden für die Luftfahrt für das Jahr 1934 [*Ephemeris astronomica ad navigationem aëriam ducendam a. 1934*]. Ann. d. Hydrogr., LXII, 3, 109-111. Berlin (1934). **a - 152**

Bericht über ein aeronautisches Jahrbuch, welches unter dem Titel « Astronomische Ephemeriden für die Luftfahrt für das Jahr 1934 » von der Deutschen Seewarte Ende Februar 1934 herausgegeben worden ist und das für die Monate März bis Dezember 1934 Ephemeriden für die Sonne, den Mond, die Planeten Venus, Mars, Jupiter und Saturn und für 40 Fixsterne enthält. Ausserdem gibt es auch Hilfstafeln (zur Höhenbeschickung) und Tafeln für Sonnen, Mondaufgänge und Untergänge und Dauer der Dämmerung.

**Risson M. E.** - Glorious Stars [*Stellæ splendentes*]. 80 pp., Putnam & Co., Ltd. New York & London (1934). **a - 153**

**Ruggiero Raffaele** - Rette d'azimut [*Recta azymuthalis*]. 3 fig., Ann. R. Ist. Sup. Nav., II, 1, 134-148. Napoli (1933). **a - 154**

L'A. accennato brevemente ai metodi di tracciamento della retta d'azimut, tratta della teoria degli errori di queste rette, limitandosi alla determinazione del punto con due o tre rette d'azimut e alla dimostrazione delle proprietà della diagonale d'azimut.

**Scott K. L.** - Magnet Steels and Permanent Magnets [*Aciarum magneticum et magnetes stabiles*]. Electr. Eng., LI, 5, 320-323. New York N. Y. (1932). **a - 155**

**Simeon Giuseppe** - Trattato di Navigazione aerea. Parte Prima: Navigazione aerea piana [*Manuale pro navigatione aëria plana*]. 210 fig., 431 pp., Editrice « Moderna ». Napoli (1934). **a - 156**

Benchè destinato ai navigatori dell'aria, questo trattato contiene molte notizie, specialmente di carattere descrittivo di strumenti, utili al navigante di superficie. È aggiornato agli ultimi trovati della scienza e dell'industria.

**Sollenberger Paul** - Recent Expansion and Developments in the Time-service of the United States Naval Observatory [*De servitio horario Observatorii Navalis ad Americæ Prov. Fed. pertinentis. Questio de diffusione et progressu*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 52-54. Washington, D. C. (1933). **a - 157**

Improvement of the equipment of the time service after the increase of the number of daily time-signals to six or seven. The principal units of the equipment. Possibilities of further development of the Service.

**Sottas Jules** - L'astrolabe plan équinoxial [*Astrolabium planum æquinoxiale*]. 6 fig., Bull. Soc. Océanogr. de France, a. XIV, 79, 1377-1383. Paris (1934). **a - 158**

Histoire de l'astrolabe dès l'antiquité au XIX siècle. Construction de l'instrument, du plateau fixe et du disque mobile. L'araignée de l'astrolabe. La mère, dessins et graphiques de la face et du dos de la mère. La suspension. L'astrolabe nautique. Un astrolabe arabe. L'astrologie qui a donné lieu à l'astronomie.

**Steinert Hermann** - Der nördliche Seeweg Kanadas [*Cursus maritimus ad nordicas regiones Canadenses*]. Geogr. Ztg., XXXVIII, 30-32. Leipzig (1932). **a - 159**

**Tenani M.** - Sui principi costruttivi delle bussole magnetiche [*De constructione buxidarum magneticarum*]. Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis., Mat. e Nat., XVII, 8, 641-644. Roma (1933). **a - 160**

Si espongono le condizioni da soddisfare affinchè l'equipaggio mobile della bussola a liquido sia sottratto all'effetto perturbatore delle vibrazioni ed i risultati conseguiti con la loro applicazione a bussole marine ed aeree.

**Thellier E.** - Aimantation permanente des terres cuites [*De magnetisatione permanenti concoctarum terrarum*]. C. R. Acad. Sc., CIIIC, 23, 1399-1401. Paris (1934). **a - 161**

Les terres cuites (briques, poteries) dont le refroidissement a eu lieu dans un champ magnétique constant sont aimantées. Rappeler ce phénomène pour les matériales qui peuvent être près du compas.

**Thomas H.** - Nomogramme zur Bestimmung der Sonnenhöhe bei beliebiger geographischer Breite sowie der Aequivalent-temperatur und spezifischen Feuchtigkeit [*Nomogrammata ad calculum determinandum altitudinis solaris, temperaturæ æquivalentis et humiditatis specificæ*]. 8 Abb., 2 Tab., Meteorol. Ztschr., L, 10, 369-374. Braunschweig (1933). **a - 162**

Drei Nomogramme mit allgemein graphischen Lösungen der Gleichung $\sin h = \sin \varphi \sin \delta + \cos \varphi \cos \delta \cos t$. Anweisung zum praktischen Gebrauch. Tabellen zur Anlegung der Nomogramme für die Sonnenhöhe $h$ und für $\Delta t$ und $q$. (Vgl. Schütte und Awerkiew Meteorol. Ztschr.).

**Thorlen R.** - La fotografia infrarossa come mezzo di esplorazione [*De photographia infrarubra ac instrumentum explorationis*]. Tidskr. i. Sjöväsendet, Maggio. Stockholm (1933). **a - 163**

Articolo di attualità riguardante gli ultimi risultati conseguiti con la fotografia infrarossa a grande distanza mediante lastre molto sensibili. Fotografia con l'infrarosso degli aerei. Apparecchi fotografici delle navi. Materiale e personale necessari.

**Tosi A.** - Metodo grafico per il riconoscimento di un astro e risoluzione grafica di altri problemi di navigazione [*Ratio graphica pro agnitione cuiusdam astri ac resolutio graphica aliarum quæstionum ad navigationem pertinentium*]. 7 fig., Riv. Maritt., 6, 181-191. Roma (1933). **a - 164**

L'A. descrive una semplice costruzione grafica per il riconoscimento di un astro, la quale risponde alle seguenti caratteristiche: 1) È di uso generale, senza alcun limite di latitudine o di altezza; 2) Il metodo non richiede alcuna preparazione analitica; 3) I dati, la cui conoscenza è necessaria per il riconoscimento dell'astro, sono: la latitudine dell'osservatore; l'altezza dell'astro; il suo rilevamento alla bussola, da cui si passa all'angolo azimutale. L'A. illustra poi la risoluzione grafica di alcuni problemi correnti di navigazione, con costruzioni analoghe a quella su indicata.

**Tuzi Konozuke** - Observations of the Moon's Right Ascension with a Small Meridian Transit [*Observationes ascensionis rectæ Lunæ per parvum instrumentum transitus stellarum registrantem*]. (In Jap.). Tokyo Astr. Lab. Rep., 1, 79-90; Mem. Astr. Soc. Jap., 2, 89-100. Tokyo (1933). **a - 165**

Bamberg's 90 mm meridian transit was used by the author for the observations at Mitaka in 1932. Total number of

observations has been 62. The method of observations and reductions is described in the paper, and the discussions of the results are given. Compared with the ephemeris, a systematic error of the limb-bisection of about 0.4 is pointed out. (K. H., Jap. Journ. Astr. & Geoph., Abstr., XI, 3, 29. Tokyo 1934).

**Vaidge B. K.** - Reference Chart for the Apparent Motion of the Sun, Moon and Planets [*Tabula motus apparentis Solis, Lunæ, Planetarum*]. 1 fig., Nature, CXXXIII, 3349, 33. London (1934). **a - 166**

These apparent motions can be represented by plotting on a single sheet of paper the right ascension of these bodies corresponding with each day of the year. A figure shows such a chart for the year 1934.

**Verstelle J. Th.** - Méthode pour porter graphiquement le point au lieu d'utiliser le stigmographe [*Graphica ratio ad punctum navis determinandum sine statiographo*]. 6 fig., Rev. Hydrogr., XI, 1, 160-162. Monaco (1934). **a - 167**

Cas particuliers sur la méthode pour faire la construction graphique en utilisant un rapporteur transparent, divisé en degrés et en demi-degrés.

**Weems P. V. H.** - Speaking of Horizons [*De refractione*]. 2 figs., U. S. Nav. Inst. Proc., LX, 372, 202-204. Annapolis, Md. (1934). **a - 168**

Comparison of observations taken on true and false horizons. Examples.

**Wells F. H.** - The Chinese Mariners' Compass, Charts, and Methods of Navigation [*Buxidæ, tabulæ nauticæ et rationes navigandi apud Sinenses*]. U. S. Nav. Inst. Proc., March. Washington (1934). **a - 169**

Some interesting details concerning the compasses used on board Chinese junks, the origin of compass in China, and the methods of navigation, chiefly empiric, followed by the pilots of the junks.

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**Accademia (R.) Navale** - Indicatore automatico di rotta [*Automaticus indicator cursus maritimi*]. 4 fig., 2 tav., 4 pp., Tip. SIAG (Stab. Italiani Arti Grafiche). Genova (1933). **a - 170**

In questo indicatore gli elementi di moto e di posizione vengono sempre riferiti ad un sistema di assi aventi l'origine coincidente con la posizione della propria nave, mentre risultano orientati in modo fisso nel piano orizzontale. Ne è descritto il funzionamento nel caso particolare in cui si desideri: « Portare la propria nave a una prefissata distanza dal bersaglio in modo che lanciando, l'angolo d'impatto abbia un valore prestabilito ».

**Bureau des Longitudes** - Annuaire pour l'an 1933 [*Annuarium a. 1933*]. viii + 706 + A 91 + B 78 + C 20 + D 7 + E 70. Gauthier-Villars et C.ie. Paris (1932). **a - 171**

**Bureau des Longitudes** - Annuaire pour l'an 1934, publié par... Avec des notices scientifiques [*Annuarium a. 1934*]. pl. et cartes h. t., 480 pp., Gauthier-Villars. Paris (1933). **a - 172**

**Deutscher Flotten-Verein (Herausg.)** - Deutsche Seefahrt [*Navigatio apud litora Germanica*]. Julius Beltz. Langensalza-Berlin-Leipzig (1933). **a - 173**

Taschenbuch für die deutsche Jugend.

**Deutsche Seewarte** - Nautisches Jahrbuch oder Ephemeriden und Tafeln für das Jahr 1934 [*Ephemeris nautica et tabulæ a. 1934*]. Deutsche Seewarte. Hamburg (1933). **a - 174**

Die Ausgabe des « Nautischen Jahrbuches » für das Jahr 1934 mit dessen Veröffentlichung die Deutsche Seewarte beauftragt worden ist, ist im März 1933 erschienen, und die Ausgabe für 1935 wird im März 1934 veröffentlicht werden. Die Daten über die Gezeiten, welche früher im « Nautischen Jahrbuch » erschienen, werden unter dem Titel « Gezeitentafeln » von der Deutschen Seewarte veröffentlicht werden.

**Hydrographic Department Tokyo** - Nomograms for Use in Navigation [*Nomogrammata navigationis*]. Publ. N° 227, Hydrogr. Dpt. Tokyo (1933). **a - 175**

**Istituto Idrografico della R. Marina** - Effemeridi Astronomiche ad uso dei naviganti per l'anno 1934 [*Ephemeris nautica a. 1934*]. 11 fig., tav. 217 pp., Ist. Idr., Genova (1933). **a - 176**

Il formato di questa nuova edizione delle « Effemeridi » è stato riportato al formato standard adottato recentemente per tutte le pubblicazioni nautiche dell'Istituto Idrografico della R. Marina e le tavole per la correzione delle altezze sono state estese fino all'elevazione dell'occhio dell'osservatore a 30 m. Il lavoro si chiude con un elenco dei segnali marconigrafici orari nel mondo intero.

**Istituto Idrografico della R. Marina** - Radioservizi per la navigazione. Vol. I. Stazioni radiogonometriche, radiofari, segnali orari e avvisi R. T. ai naviganti [*Radiogoniometricæ stationes, radiophari, signalia horaria et normæ pro navigantibus*]. (Aggiornato al 1° gennaio 1934 - A. XII) 12 fig., 2 carte f. t., viii + 196 pp., II, Tip. Ist. Idrogr. della R. Marina, Genova (1934). **a - 177**

La pubblicazione consta di due volumi. Il primo contiene gli elenchi delle stazioni radiogoniometriche, dei radiofari, dei segnali orari r. t. e delle stazioni di emissione degli avvisi urgenti ai naviganti.

**Ministero dell'Aeronautica - Direzione Superiore degli Studi ed esperienze** - Istruzione sull'apparato per il controllo delle bussole magnetiche [*Præcepta circa apparatus ad buxidas magneticas inspiciendas*]. 11 fig. f. t., 16 pp., Ist. Poligr. dello Stato. Roma (1934). **a - 178**

**Observatorio Astronomico de Madrid** - Anuario del... para 1934 [*Annuarium a. 1934*]. 374 pp., Talleres del Instituto Geográfico y Catastral. Madrid (1933). **a - 179**

La lista de estrellas facilita la preparación de la observaciones con el Astrolabio de prisma. El secundo trabajo special de este año se refiere al magnetismo terrestre y a datos de la declinación de España.

**Polske Hydrograficne Burze** - Tablice Nawigacyjne [*Tabulæ navigationis*]. 220 pp., Inst. Wydawniczy Panzt-Skoly Morskiej. Gdynia (1933). **a - 180**

Divisées en cinque parties: Généralités (Tables de logarithmes et trigonométriques); Astronomie; Navigation; Divers; Supplément (Contenant les tables Dreisonstok).

**United States Hydrographic Office** (origin. by Nathaniel Bowditch). - American Practical Navigator. An Epitome of Navigation and Nautical Astronomy. N° 9. Part I & II. [*Manuale* *artis navigandi*]. 86 figs., numer. tables, U. S. Govmt. Print. Off., 852 pp. Washington (1933). **a - 181**

Part I: Abbreviations. Ch. I. Definitions relating to navigation; II. Instruments and Accessories in navigation; III. The compass error; IV. Piloting; V. The sailings; VI. Dead reckoning; VII. Definitions relating to nautical astronomy; VIII. Instruments employed in nautical astronomy; IX. Time and the Nautical Almanac; X. Correction of observed altitudes; XI. The chronometer error; XII. Latitude; XIII. Longitude; XIV. Azimuth; XV. The summer line; XVI. The practice of navigation at sea; XVII. Marine surveying; XVIII. Winds; XIX. Cyclonic storms; XX. Tides; XXI. Ocean currents; XXII. Ice and its movements in the North Atlantic Ocean. Appendices.

Part II: Contains 50 tables of the American Practical Navigator as revised in 1880, 1903, 1914, 1924, 1926, 1928, and 1930 under the direction of the Hydrographic Office, Bureau of Navigation, Navy Department.

**United States Naval Observatory** - The American Ephemeris and Nautical Almanac for the Year 1935 [*Ephemeris nautica a. 1935*]. 825 pp., U. S. Govmt. Print. Off. Washington (1933). **a - 182**

**U. S. Naval Observatory** - Publications of the United States Naval Observatory. Second Series. Volume XIII [*Publicationes Observatorii Navalis Americæ Provinciarum Foederatarum. Series Altera. Vol. XIII*]. num. tables. U. S. Govmt. Print. Off., 5-365 pp. Washington D. C. (1933). **a - 183**

Introduction. High Ascensions. Declinations. Sun, Moon, and Planet Reductions. Formation of the Star Catalogue. Comparison with Other Catalogues. Revision of the 1900 Catalogue. Collected Observations of the Sun, Moon, and Planets. Catalogue of 9,800 Standard and Intermediary Stars. Miscellaneous Stars. Standard Stars 1925.0 and Comparison with Catalogues.

**United States Navy Department. Hydrographic Office** - Navigation Tables for Mariners and Aviators. Dreisonstok. Fourth Edition [*Tabulæ navigationis maritimæ et aëriæ.* Dreisonstok *auctore*]. 3 tabl., U. S. Govmt. Print. Off., H. O. nº 208, i-iv, 89 pp. Washington D. C. (1933). **a - 184**

The tables reproduced in this book are designed to facilitate the navigation of aircraft and surface craft. The method of solving navigational problems here given is applied to all problems regardless of the position of the heavenly body, be it sun, moon, planet, or star. The contents is as follows: Preface. Corrections to observed altitudes of sun, star or planet. Table I, II. Explanation of the construction and use of tables. Traverse Table. Table I and II are based on the formulas of the astronomical triangle in which a perpendicular falls from the observer's zenith to the declination circle.

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**H. B.** - Le « Déviomètre » [*De Deviometro*]. 1 fig., Rev. Hydr. VIII, 1, 208-210. Monaco (1931). **a - 185**

Le « déviomètre » est un accessoire que la section des recherches de l'« Aeronautics Branch » du « Department of Commerce » des Etats-Unis a établi pour faciliter l'emploi du radiophare dirigé du type à indication visuelle. L'A. de la présente note donne une description détaillée de son emploi, grâce auquel le pilote est à même de suivre n'importe quelle route choisie entre certaines limites, de chaque côté de la ligne des signaux d'égale intensité pour laquelle l'émetteur du radiophare est réglé. Il indique aussi les résultats obtenus par la Section de Recherches qui a expérimenté de « déviomètre » dans un grand nombre de conditions, et les notices bibliographiques américaines concernant ce nouveau dispositif. (D'après les renseignements du Journ. of the Franklin Inst., Philadelphia, Pa.).

**An.** - Nautisches Jahrbuch oder Ephemeriden und Tafeln, 1934 [*Ephemeris nautica et tabulæ, a. 1934*]. 184 pp., Deutsche Seewarte. Hamburg (1933). **a - 186**

**An.** - New Astronomical Navigation Tables [*Novæ tabulæ astronomicæ ad navigandum*]. 217 pp., Hydrogr. Dpt. Tokyo (1933). **a - 187**

**An.** - Manuale dell' Ufficiale di Rotta. 2ª ed. [*Manuale pro pilotis. II Editio*]. Num. fig., tav. e 2 piani f. t. xiv + 638 pp., Tipolit. Ist. Idrogr. R. Marina. Genova (1934). **a - 188**

Edizione molto ritoccata ed aumentata del ben noto Manuale dell'Amm. Burzagli e del Comandante Grillo. Il capitolo delle girobussole è nuovo. Son date le caratteristiche generali di queste bussole e alcune norme e dati particolari per le bussole in servizio nella R. Marina. Pure nuovo è il capitolo sul radiogoniometro, a quello sulle maree. Aggiornate sono le informazioni sulle pubblicazioni nautiche delle varie Nazioni e riveduti e corretti tutti i capitoli.

**An.** - The Marine Observer's Log [*Notæ navigationis ex* Marine Observer]. Mar. Obs., X, London (1934). **a - 189**

nº 113 (Jan. Febr. March.): The Agulhas Current. Currents and sea temperature (Cape of Good Hope). Drift of native Canoe. St. Paul's Island (South Indian Ocean). Hurricane (South Pacific). Pampero (East Coast of South America). Smoke from a Bush Fire (South-West Coast of Australia). Mountain Cloud (South Coast of Spain). Cloud Arch (South Atlantic). Fog in the Gulf of Tehuantepec (North Pacific). Zodiacal light (North Atlantic). Aurora Australis (South Indian Ocean). Solar Haloes (North Indian Ocean). Meteor (South Atlantic).

nº 114 (April, May, June): Four Sailing Ships Sighted on Passage. Phosphorescence (New Zealand Waters), (North Atlantic Ocean), (South Pacific), Earthquake Tremors (South Pacific). Pampero (off Bahia Blanca). Weather Charts Made at Sea (South Pacific Ocean). Squall (South African Waters). Green Rays at Sunset (Arabian Sea). Sand Deposit (Mediterranean Sea). Lunar Ray (North Atlantic). Cloud formation (Bay of Bengal). Mirage (Red Sea). Meteors (North Atlantic Ocean), Meteor (New Zealand Waters), (South Pacific).

nº 115 (July, August, Sept.): Currents on the West and North West Coasts of Australia. Current Rips (Caribbean Sea), Phosphorescence (South Atlantic), White Water (Timor Sea). Weather Charts Made in West Indian Hurricane Region (A valuable Aid to Safe Navigation). Thunderstorm (Majorca). Pumping of Barometer (N. W. Coast of Spain). Mirage (Bristol Channel). Parital eclipse of the Sun (Mediterranean Sea). Halo phenomena (North Atlantic Ocean). Unusual Lunar Halo (North Indian Ocean). Meteor (North Atlantic), (Red Sea). A Call at Tristan da Cunha. To Tristan da Cunha from Rio de Janeiro.

nº 116 (October, November, December): Meteor Shower (North Atlantic). Bay of Biscay. Coast of Spain and Portugal. Mediterranean. West Coast of Africa. Meteor (Mediterranean Sea). Tornado (West Coast of Africa). Weather Charts Made at Sea (Eastern North Atlantic). South Pacific Ocean. Weather Charts Made at Sea (Red Sea), South African Water. Brickfielder (Melbourne, Australia). Currents and Weather (Tristan da Cunha). Cloud formation (South Atlantic). Waterspout (North Indian Ocean), (North Atlantic). Our youngest observer. Photograph of Albatross (Australian Waters).

**An.** - Infrared Photography as an Aid to Navigation [*Infrarubra photographia auxiliaria navigationis*]. Nature, CXXXIII, 3352, 132. London (1934). **a - 190**

The U. S. liner « Manhattan » has recently been fitted with a special look-out camera intended for an investigation of fog penetration with infra-red sensitive materials. Short note of information.

**An.** - A New Test for Large Mirrors [*Agitur de nova quadam ratione speculis magnis comprobandis*]. Nature, CXXXIII, 3366, 693. London (1934). **a - 191**

On a new method of testing optical surfaces due to Prof. Zernicke. Errors in a mirror surface of the order of a tenth of a wave length of light show up very clearly. See the April (1934) number of the Observatory in which appears a report of the meeting of the R. Astron. Soc. at which Prof. Zernicke propounded the wave theory of Foucault's test and this new method.

**An.** - A Fog Piercing Camera [*Photographicus apparatus qui caliginem lacerat*]. U. S. Nav. Inst. Proc., LX, 375, 713-714. Annapolis. Md. (1934). **a - 192**

A professional note on a paper of the Scientific American of March (New York) about fog-navigating camera invented by Capt. Flavel M. Williams, which has been given thorough and conclusive tests in actual service and has been found to constitute an outstanding achievement in man's battle against fog.

## Securitas maritima - Operae pro vitae rerumque conservatione - Adsistentia - Destructio et recuperatio navium.

**Farwell Raymond** - Conflicting Signals [*De securitate in navigatione*]. U. S. Nav. Inst. Proc., LX, 373, 333-344. Annapolis, Md. (1934). **a - 193**

The author criticises some inland and general pilot rules on safety at sea.

**Farwell Raymond F.** - Reply to Discussion of Critique of American Collision Law [*Americana lex circa securitatem navigationis*]. U. S. Nav. Inst. Proc., LX, 373, 405-407. Annapolis, Md. (1934). **a - 194**

Answers to the principal questions about signals and rules. See the same number p. 333 and 405 ; the number of September 1933, p. 1249.

**Flamm O.** - Stabilisierungsversuch an einem grossen Passagiermotorschiff [*De stabilitate navium pro vectoribus motore praeditarum*]. Schiffbau, XXXV, 11, 180-181. Berlin (1934).

(—) See also : Engineering, CXXXVII, 3569, 645-646. London (1934). **a - 195**

Il s'agit d'essais sur un grand liner de 14.000 tons. Les diagrammes de roulis pris pendant les preuves son reproduits et illustrés. Le système de l'auteur paraît simple et utile.

**Haentjens M. J.** - Détermination de longueur, largeur et orientation d'une épave au moyen d'un ceinturage avec trois cochonnets [*Determinatio dimensionis cuiusdam navis in fundo marino jacentis*]. 1 fig., Bull. Soc. Océanogr. France, 70, 1242-1243. Paris (1933). **a - 196**

Description de la méthode de détermination de longueur, largeur, et orientation d'une épave au moyen d'un ceinturage représenté à la surface par trois flotteurs, discutée et reconnue mathématiquement suffisante au cours des débats de l'affaire de l' « Egypt » devant la Cour de l'Amirauté.

**Hort** - Beschreibung und Versuchsergebnisse ausgeführter Schiffsstabilisierungsanlagen [*De experimentis circa stabilitatem navium*]. Schiffbau, XXXIV, 23, 437-438. Berlin (1933).

(—) See auch : Werft Reed. Haf. XIV, 24, 345-346. Berlin (1933). **a - 197**

Résumé et discussion d'une conférence tenue chez la « Schiffsbautechnische Gesellschaft ». Référence spéciale aux systèmes Frahm.

**McComb S. D.** - Structural Hazards on Shipboard [*Alea in navibus construendis*]. Soc. Nav. Architects & Mar. Engrs. Trans., XL, 269-276 discussion 276-278. New York (1932). **a - 198**

**Rellstab L.** - Activated Anti-Rolling Tank System [*De systemate ad navis vitandam inclinationem capsarum aquam continentium auxilio*]. Engineer, CLVII, 4094, 648-650. Trenton, N. J. (1934). **a - 199**

On a special system of Siemens and Halske type. Development of Frahm conception.

**Rubl J.** - Diario del salvamento del cacciatorpediniere « José Luiz Diaz » [*Diarium de operibus pro conservatione navis antitorpedinariae* « José Luiz Diaz »]. Ingenieria Naval, IV, 33, 200-209. Buenos Aires (1934). **a - 200**

Le destroyer « José Luis Diaz » eut un accident à Ibiza. Description du sauvetage.

**Smith H. G.** - Report of the Resolutions Committee [*Relatio Comitati sententiis sumendis*]. U. S. Govmt. Print. Off., 6th Nat. Conf. merch. Mar., Jan, 4-5, 1933, 122-138. Washington, D. C. (1933). **a - 201**

Text of the resolution elaborated by the Resolution Committee of the Sixth National Conference of the Merchant Marine held at Washington, on January 4-5, 1933, followed by Remarks by Mr. Andrew Furuseth and Rear Admiral J. G. Trawresey on the Resolution concerning the Safety of Life at Sea Convention.

**Vogel H.** - Deep-Sea Salvage Submarine [*De recuperatione navium ex alto fundo. De vita rebusque conservandis in profunditatibus maris, submergibilium auxilio*]. Shipbldg. & Shipg. Rec., XLIII, 8, 192-193. London (1934). **a - 202**

On ships intended for salvage work, especially for depths reaching more than 100 fathoms.

**Welch Philip. P.** - Unruly Rules of the Road [*Regulae cursus maritimi nulla norma ducendi*]. U. S. Nav. Inst. Proc., LX, 375, 641-646. Annapolis, Md. (1934). **a - 203**

Artistic paper showing some defects of the Rules of the Road on hand of a story.

**Williams C. H.** - Recent Arctic Rescues [*De hominum rerumque conservatione in regionibus arcticis recentiore tempore*]. 2 figs., Mar. Obs., XI, 115, 99-100. London (1934). **a - 204**

The remarkable rescue of the passengers and crew of the Russian steamer Cheliuskin, and other rescues.

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**Société des Nations** - Convention internationale pour la sauvegarde de la vie humaine en mer. Signée à Londres le 31 mai 1929 [*Conventio internationalis pro vitae humanae conservatione in navigatione*]. Recueil Traités, CXLII, 1/2/3/4, 393. Genève (1933-1934). **a - 205**

**Société des Nations** - Déclaration entre la Grande-Bretagne et le Danemark concernant l'assistance réciproque donnée dans certains cas aux marins délaissés. Signée à Londres, le 25 juillet 1883 [*Britannia et Dania. Conventio pro adsistentia nautis*]. Recueil Traités, CXLII, 1/2/3/4, 396-398. Genève (1933-1934). **a - 206**

**U. S. Department of Commerce. Bureau of Navigation and Steamboat Inspection** - Forty-ninth Supplement to General Rules and Regulations [*XLIX.um Supplementum legibus generalibus et regulamentis*]. 1 tabl., U. S. Govmt. Print. Off., 1-14. Washington, D. C. (1933). **a - 207**

Amendments to the following General Rules and Regulations: Rule II. Boilers and Attachments. Rule III. Boats, Rafts, Bulkheads, and Life-Saving Appliances. Rule IV. Fire Apparatus.

**U. S. Department of Commerce. Bureau of Navigation and Steamboat Inspection** - Laws Governing Steamboat Inspection [*Leges circa inspectionem navium vaporalium*]. U. S. Govmt. Print. Off., 2-93, Nov. 16. Washington, D. C. (1933). **a - 208**

Revised Statutes of the United States as modified by the Act of Congress approved on March 4, 1913, establishing the Department of Commerce, and by other Acts of Congress. Ch. 1. Inspection. Ch. 2. Transportation of passengers and merchandise. Ch. 5. Navigation. Ch. 6. Transportation of passengers and merchandise. Ch. 9. Summary trial for certain offenses against navigation laws. Miscellaneous Acts, etc.

## Signalationes maritimae (fixae, fluctuantes, luminosae et per radio, sonorae et ultrasonorae) - Libri pharorum, lanternarum, signalationum - Communicationes.

**Bellini V.** - Il faro Salmoiraghi sulla Torre Littoria [*De pharo* Salmoiraghi *in turri Littoria*]. (Bibl.), 5 fot., Filotecnica, 5, 266-269. Milano (1933). **a - 209**

L'A., alla descrizione del faro sulla Torre Littoria, premette un cenno riassuntivo sulla costruzione dei fari in genere.

**Boella M.** - Radioricevitori [*De radio-receptoribus*]. Rend. della XXXVII Riunione Annuale dell'A. E. I. (Firenze). Suppl. a « L'Elettrotecnica » v. V. della nuova serie, 50 fig., 308-321. Milano (1932). **a - 210**

Poste brevemente in rilievo le necessità di differenziazione tra i vari tipi di radioricevitori, si passano in rassegna i più recenti sviluppi di quelli per servizi di radio diffusione e, successivamente, di quelli per servizi di comunicazione telegrafica e telefonica, trattando prima ampiamente delle varie disposizioni di circuiti, e quindi accennando alle particolarità riguardanti la pratica realizzazione degli apparecchi.

**Bowen J. P.** - Directional Wireless [*De radio-undis quae duci possunt*]. Mar. Obs., XI, 115, 100-101. London (1934). **a - 211**

Generalities.

**Carrara Nello** - Le onde cortissime e il loro impiego nelle radiocomunicazioni [*Undae ultrabreves in radiocommunicationibus adhibendae*]. 30 fig., Alta Fr., 3, 465-496. Milano (1933). **a - 212**

Rassegna storica delle ricerche e dei risultati ottenuti nel campo delle microonde di lunghezza inferiore al metro; descrizione dei dispositivi sperimentali, derivati dalle prime esperienze di Barkhausen e Kurz, per la produzione di oscillazioni elettroniche di altissima frequenza nell'interno dei triodi; esposizione dei fondamenti delle principali teorie e di tali oscillazioni elettroniche; descrizione di apparati per radiocomunicazioni con microonde. Con particolare estensione sono riferite le ricerche eseguite presso il Regio Istituto Elettrotecnico e delle Comunicazioni della Marina.

**Gneme G.** - Convenzione europea della radiodiffusione e Piano di ripartizione delle frequenze alle stazioni europee di radiodiffusione [*Conventiones in Europa subscriptae circa radiodiffusiones*]. Rass. Poste, Telegr. e Telef., 7, 1 cartina, 448-460. Roma (1933). **a - 213**

L'A. riferisce sui lavori della Conferenza radioelettrica di Lucerna (19 giugno 1933), tenutasi allo scopo di stabilire i principii generali per la redazione del Piano di ripartizione delle frequenze fra le stazioni di radiodiffusione europee. La Conferenza si occupò anche della Compilazione della Convenzione e del Protocollo finale, delle questioni giuridiche, della verifica dei pieni poteri e della redazione definitiva degli atti.

**Gori V.** - Sulla moderna tecnica dei centri radiotrasmittenti di grande potenza [*Centra radiotransmittentia maxima potentia eorumque hodierna technica*]. (Bibl.), 25 fig., Rend. della XXXVII Riunione Annuale dell'A. E. I. (Firenze). Suppl. a « L'Elettrotecnica », v. V della nuova serie, 287-298. Milano (1932). **a - 214**

Esaminate le proprietà caratteristiche delle onde lunghe e delle onde corte, si pone in evidenza quale sia l'orientamento della radiotecnica attuale per ciò che concerne i trasmettitori di grande potenza adibiti a servizio commerciale. Discussa la necessità di una frequenza di emissione rigorosamente costante, si studiano i vari tipi di trasmettitori comandati soffermandosi in modo particolare sul tipo a quarzo mettendone in risalto i vantaggi e gli inconvenienti. Illustrato il trasmettitore italiano per il servizio radiotelefonico commerciale transoceanico, si dà un cenno sui più recenti metodi di stabilizzazione della frequenza mediante lunghe linee di alimentazione. Si passa quindi a descrivere i vari tipi di sistemi irradianti direttivi, si studiano le proprietà caratteristiche delle linee di alimentazione degli stessi, e si dà un rapido cenno sui sistemi di equilibramento fra i primi e le seconde.

**Hasimoto Masao** - Rhythmic Time Service [*Servitium horarium rhythmicum*]. Astron. Bull. 76. Tokyo (1933). **a - 215**

In connection with the Second International Polar Year observations in 1932-33, a series of rhythmic time-signals has been emitted, twice a day at 2h and 12h G. T. every day, from the Naval Wireless Station at Hunabasi. The scheme of the service and the method of deduction of the correction are described in the note. The corrections of emitted signals for the months August, September, and October are also given. (K. H., Jap. Journ. Astr. & Geoph., XI, 3, abstr. 121, 39, Tokyo. 1934).

**Hennessy J.** - Notes on the History of Sea-Signals [*Notae de historia signorum navalium*]. Mar. Obs., XI, 113, 16-19. London (1934). **a - 216**

From a method described by the Greek historian Polybius until Wireless Telegraphy. General summary.

**Ladner A. W.** - Short Waves Wireless Communication. Second Edition revised and enlarged [*Radio-communicationes undis brevibus. Editio altera correcta et aucta*]. 13 pl., xiv + 384 pp. Chapman & Hall. Ltd. London (1934). **a - 217**

**Matteini Carlo** - Radiocomunicazioni con onde ultracorte e microonde [*Radio-communicationes undis ultrabrevibus et microundis*]. 3 fig., Riv. Maritt., Anno LXVII, 2, 155-162. Roma (1934). **a - 218**

Sugli ultimi studi e sulle ultime applicazioni di tali onde. Strumenti. Segretezza delle comunicazioni.

**McCracken Alan R.** - The Universal Signal Book, 1818 [*De primo internationali codice signalationum, 1818*]. U. S. Nav. Inst. Proc., LX, 372, 230-232. Annapolis, Md. (1934). **a - 219**

Historical notes of the father book of the International Code of Signals. The A. deals with some old signals out of use.

**Mead H. P.** - II. Manual Signalling [*De signalationibus manuactis*]. 7 figs., 4 pls., Mar. Mirr., XX, 1, 93-105. London (1934). **a - 220**

Continuation of an article begun in M. M., 3, p. 325, 1933. Early methods of signals on hand of extracts of publications and their comments and illustrations during the 19th century until the first decennium of the 20th century.

**Mead H. P.** - The Story of the Semaphore. III. Semaphore Machines [*Semaphorum eiusque historia. Pars III.a Apparatus semaphorici*]. 17 figs., 2 pls., Mar. Mirr., XX, 2, 208-228. London (1934). **a - 221**

Different systems and machines from 1792 invented by Chappe, Gamble, Macdonald, Pasley, Nicolas, Conolly, Watson, Walker. Revision of the International Code in 1900 and 1931, and results. (For details of earlier types see Encyclopaedia Britannica (Supp.) 1824, and the Penny Cyclopaedia, 1842).

**Mead H. P.** - The Story of the Semaphore. IV. Popham and Pasley. [*Semaphorum eiusque historia. Pars IV.a Apparatus semaphorici*]. 11 figs., 2 pls., Mar. Mirr., XX, 3, 349-370. London (1934). **a - 222**

The present fourth chapter of Commander H. P. Mead's work deals with the two most important characters in the history of the semaphore, as far as Great Britain is concerned. Biography and main achievements of Sir Home Popham and Sir Charles Pasley.

**Miyadi Masazi** - Systematic Irregularity of the Rhythmic Time Signals from Tokyo [*De irregularitate in signalationibus horariis a* Tokyo *transmissis*]. Astr. Bull., 86. Tokyo (1933). **a - 223**

The rhythmic time signals from Tokyo are transmitted by an electric clock made by Leroy of Paris. By means of a chronograph with 100 cycle tuning work, the author found an irregularity with the period of 12 seconds. The range is about 0,s 09. (K. H., Jap. Journ. Astr. & Geoph., XI, 3, abstr. 126, 39. Tokyo 1934).

**Montefinale G.** - I progressi della radio. Onde ultracorte e loro possibili applicazioni nel campo marittimo [*De progressibus radio-communicationum. De undis ultrabrevibus ad munera nautica applicandis*]. Riv. Maritt., Anno LXVII, 9, 235-244. Roma (1934). **a - 224**

Decisioni della Conferenza di Madrid. Storia delle esperienze sulle onde ultracorte. Caratteristiche di tali onde. Radiofari. Ultime esperienze di Marconi.

**Orvin Anders K.** - Isfjord Fyr of radiostasjon Svalbard [*Pharum apud* Isfjord *et radio-statio in* Svalbard]. 3 fig., 1 carta, Norsk Geogr. Tidsskr., V, 2, 117-125. Oslo (1934). **a - 225**

L'autore, dopo aver dato un breve sguardo alla navigazione allo Svalbard dalla scoperta di circa 300 anni fa ed alle misure prese per assicurare la navigazione, tratta dell'iniziativa presa nel 1933 e del lavoro eseguito per la costruzione di un faro, di una stazione radiotelegrafica al Capo Linné di un « fanale all'entrata del Fiord di Advent. Descrizione e equipaggiamento della stazione e del faro.

**Palkine I. P.** - Liaison à l'aide de la radio entre les bâtiments le la flotte marchande et les perspectives de son développement [*Radio-communicationes inter naves mercatorias. Quaestio de progressibus*]. (En russe). Vodn. Transp., 11, 23-24. Moskva (1933). **a - 226**

Résumé rapide des différents systèmes de liaison par T. S. F. entre les bâtiments de la flotte marchande soviétique sur la Baltique et la Mer Noire. Quelques indications sur les services particuliers dont sont chargés les radio-télégraphistes à bord et description de quelques types d'installation de T. S. F. sur les navires.

**Pellegrineschi A. V.** - La connessione radiotelegrafica della Somalia italiana [*Radio-communicationes in* Somalia *Italica*]. Riv. Col. It., VII, 6, Roma (1933). **a - 227**

**Pession G., Montefinale G. & Marzoli A.** - Il centro radiomarittimo di Coltano (1929-1932) [*Centrum radio-maritimum in* Coltano]. 38 fig., Rend. della XXXVII Riunione Annuale dell' A. E. I. (Firenze). Suppl. a « L'Elettrotecnica », v. V della nuova serie, 322-339. Milano (1932). **a - 228**

Ricordati i precedenti del Centro transcontinentale di Coltano, si accenna alle ragioni che ne promossero la trasformazione in Centro radiomarittimo di media e grande portata, illustrando i criteri seguiti nella scelta degli apparecchi e nell'organizzazione del servizio. Sono descritti dettagliatamente l'impiego principale ad onda corta da 14 kW, l'impianto ausiliario ad onda corta da 2 kW, gli impianti ad onda media di tipo navale e la stazione ricevente duplex di Modica. È fatto cenno dell'impianto radiotelefonico e di alcune misure eseguite. Infine sono riportate alcune norme sulla regolazione del complesso stabilizzatore di frequenza e dei vari amplificatori a ponte che costituiscono gli speciali circuiti dei trasmettitori ad onde corte.

**Ratto H. R.** - Los códigos de señales del Almirante Brow [*Codices signalationum navarcae* Brow]. Bol. Centro Nav., LII, 500. Buenos Aires (1933). **a - 229**

**Sacco Luigi** - Radiogoniometria militare [*Radio-goniometria militaris*]. (Conferenza al V Corso di Magistero R. T. presso l'Istituto Militare di R. T. ed E. T. Roma, settembre 1933), 12 fig., Boll. Radiotel. R. Eserc., 5/6, 199-231. Roma (1933). **a - 230**

Si descrive il funzionamento dei radiogoniometri a telaio girevole e di quelli del tipo Adcock. Si discutono le principali cause di errore nei rilevamenti e se ne deducono alcune norme di impiego dei radiogoniometri nel campo militare.

**Wedemeyer E. A.** - Zur Küstenbrechung der Funkstrahlen [*De refractione litorea radio-undarum*]. 3 Abb., Ann. d. Hydrogr., LXII, 7, 297-298. Berlin (1934). **a - 231**

Einige Betrachtungen über die Funkstrahlenablenkung, die Küstenbrechung, welche beim Uebergang vom Land zu Wasser bei schrägem Schnitt der Küste eintreten sollte, und welche als Erklärung früherer Messabweichungen verwendet worden ist, obwohl viele tausende systematische Versuche sie bis heute nirgends erweisen konnten. In der vorliegenden Notiz ist ihre Unwahrscheinlichkeit nachgewiesen.

**Wedge F. J. N.** - Brown's Flags and Funnels [*Manuale Brownii*]. Brown & Ferguson. Glasgow (1934). **a - 232**

Third edition of the well known volume containing data of 740 navigation societies.

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**Bureau International de l'Union Télégraphique** - Règlement général des radiocommunications [*Regulamentum generale radio-communicationum*]. B. I. Union Télégr., Berne. Madrid (1932). **a - 233**

Nouvelle édition du Règlement Général des Radiocommunications annexé à la Convention international des Télécommunications, comportant le Règlement additionnel établi par les actes de la Conférence Radiotélégraphique internationale de Madrid, Décembre 1932. Diverses dispositions de ce Règlement intéressent certains documents nautiques, notamment ceux qui donnent les « Listes des Radiosignaux ».

**Chief Signal Officer** - Signal Corps Field Manual [*Liber pro signalatoribus*]. Volume II: Signal Corps Operations. 47 figs., tabl., Govmt. Print. Off., 1-206. Washington, D. C. (1931). **a - 234**

1) Wire lines; 2) Telephone Instruments; 3) Telephone Centrals; 4) Telegraph Communication; 5) Radio Communication; 6) Signal Corps Intelligence agencies; 7) Signal Corps Message Centers; 8) Storage Batteries and Charging Sets; 9) Pigeon-loft Management; 10) Field Photography; 11) Field Meteorology.

**Istituto Idrografico della R. Marina** - Elenco dei fari, fanali e segnali da nebbia, a giorno 1 Gennaio 1933 [*Index pharorum, lanternarum, signalationum caligine vitanda ad diem 1 Mensis Januarii 1933*]. Ist. Idrogr. della R. Marina. Genova (1932). **a - 235**

Nuova edizione completamente riveduta dell'Elenco dei Fari italiani dalla quale sono state interamente eliminate le informazioni sui segnali marittimi diurni che saranno trattate in un volume a parte di prossima pubblicazione, nel quale si troverà anche la descrizione dei semafori, dei radiofari e dei segnali orari. In questa nuova edizione sono state pubblicate indicazioni sui fari, fanali e segnali da nebbia nel Mediterraneo, il Mar Nero, il Mare d'Azov, il Mar Rosso, il Golfo di Aden e sulla costa orientale dell'Africa fino allo Zanzibar.

**Istituto Idrografico della R. Marina** - Elenco dei Segnalamenti Marittimi Diurni [*Signalationes maritimae diurnae. Index*]. Mediterraneo, mar Nero, mar d'Azof, mar Rosso, golfo d' Aden e Costa orientale d'Africa fino a Zanzibar, 467 fig. f. t., 182 pp., appendice 32 pp., Tip. dell'Ist. Idrogr. della R. Marina. Genova (1933). **a - 236**

Nel volume, aggiornato al 1° luglio 1933, sono elencati i segnali marittimi diurni, i semafori, i segnali orari ottici, ecc. Le boe da ormeggio e da tonneggio, sono elencate in un'appendice alla fine del volume.

**Nautische Abteilung der Marineleitung** - Verzeichnis der Leuchtfeuer und Signalstellen aller Meere [*Index pharorum stationumque signalationum omnibus maribus*]. Marineleitung. Berlin (1932). **a - 237**

Das Verzeichnis gilt für das Jahr 1933 und besteht aus den folgenden zwei Teilen; I. Ostsee; II. Gewässer zwischen der Ost- und der Nordsee. Der allgemeine Teil behandelt eingehend die Frage der Wracktonnen.

**Société des Nations** - Accord sur les bateaux-feu gardes se trouvant hors de leur poste normal. Signé à Lisbonne, le 23 octobre 1930 [*Conventio internationalis de navibus pharum ferentibus*]. Recueil Traités, CXLII, 1/2/3/4, 371. Genève (1933-1934). **a - 238**

**Société des Nations** - Accord relatif aux signaux maritimes. Signés à Lisbonne, le 23 octobre 1930 [*Conventio de signis maritimis*]. Recueil Traités, CXLII, 1/2/3/4, 379. Genève (1933-1934). **a - 239**

**Ufficio del Capo di Stato Maggiore della R. Marina (Reparto Servizi - Ufficio Comunicazioni)** - Codice internazionale dei segnali Ediz. italiana 1931. Vol. I: Segnalazioni ottiche ed acustiche, disegni, tavole, tabelle in nero a colori. Vol. II. Segnalazioni con la radiotelegrafia [*Codex internationalis signalationum. Editio Italica 1931. Vol. I. Signalationes opticae et acusticae. Vol. II Radiosignalationes*]. lv + 1007; viii + 1309 pp., Poligr. dello Stato, Libreria dello Stato. Roma (1933). **a - 240**

**United States Department of Commerce** - Annual Report of the Commissioner of Lighthouses [*Relatio annua Directoris pro pharorum muneribus*]. U. S. Dept. of Comm. Washington, D. C. (1932). **a - 241**

The present Report contains interesting information on the work of the Lighthouse Service and improvements introduced in the various apparatuses serving as aids to navigation and to their various accessories. A summary shows the different changes in buoyage and coast lighting introduced during the fiscal year and gives tabulations showing the number of aids maintained for every lighthouse district.

**United States Hydrographic Office** - The 1931 International Code of Signals. American Edition. Vol. I: For Visual and Sound Signalling [*Codex internationalis signalationum 1931. Editio Americana. Vol. I. Signalationes visibiles ac sonorae*]. 17 pls., num. tabl., H. O. N° 87, 362 pp., U. S. Govmt. Print. Off., Washington, D. C. (1933). **a - 242**

Preface. National colors worn by United States vessels. Special United States flags. Flags of different countries. International Code flags and pennants. Airplane markings. Signalling instruction. Appendix A: Ship and aircraft distress signals. B: Pilot signals. C: Quarantine signals. D: Towing signals. E: Miscellaneous. Live-saving organization on coast of the United Kingdom.

**United States Hydrographic Office** - The 1931 International Code of Signals. American Edition. Vol. II: For Radio Signalling [*Codex internationalis signalationum 1931. Editio Americana. Vol. II. Radiosignalationes*]. iii - xvii + 418 pp., U. S. Govmt. Print. Off. H. O. N° 88. Washington, D. C. (1933). **a - 243**

New edition of the code which is primarily intended for use by ships and aircraft and, via shore radio stations, between ships or aircraft and authorities ashore. It is not intended in any way to compete with or replace commercial codes. It contains radio signalling instructions, and explanation and instruction for the use of the code.

**United States Hydrographic Office** - 1933 Radio Aids to Navigation Including Details of Radio Direction Finder Stations, Radiobeacons, Weather Bulletins, Storm and Navigational Warnings, Time Signals, etc. Corrected to May 1, 1933 [*De radioauxiliis navigatoribus*]. ii-xi + 2-493 pp., U. S. Govmt. Print. Off., Notice Marin. 17. Washington, D. C. (1933). **a - 244**

Part I of this publication contains a complete list of radio stations throughout the world which perform services of value to navigation. Part II contains information such as general instructions codes, and tables.

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**M. L.** - Nuove stazioni di radiodiffusione in Francia [*Stationes novæ Gallicæ pro radiodiffusionibus*]. Riv. Maritt., Anno LXVII, 9 (Suppl.), 32-33. Roma (1934). **a - 245**

Sulle due potenti stazioni, una presso Antibo, e una a Realtor, presso Marsiglia. Si lamenta la troppa vicinanza di queste stazioni al mare; ciò potrà disturbare il traffico radiomarittimo.

**An.** - Uniform System of Buoyage. Unification du balisage [*De signis fluctuantibus unificandis*] (En angl. & franç.]. Bull. Hydrogr., Int., 1, 15. Monaco (1933). **a - 246**

Indications sur un projet de règlement et une note explicative établis par les Service des Phares Français relatifs à 1) Un système uniforme de balisage latérale ; 2) Un système uniforme de balisage cardinal, publié par l'Organisation des Communications et du Transit de la Société des Nations, à la date du 1 Décembre 1932.

**An.** - Visibilité des feux. Danemark. Visibility of Lights. Denmark. [*De pharorum visibilitate. Dania*] (En angl. & franç.). Bull. Hydrogr. Int., 7, 135. Monaco (1933). **a - 247**

Information sur l'envoi au B. H. I. d'une liste contenant des observations de visibilité des feux faites aux principaux phares du Danemark pendant l'année 1932.

**An.** - Wireless Reception in Naval Ships [*De radioreceptionibus in navibus*]. Nature, CXXXIII 3366, 693. London (1934). **a - 248**

In a paper read by Dr. W. F. Rawlinson before the Wireless Section of the Institution of Electrical Engineers on March 7, 1934 are discussed problems encountered in the reception of wireless signals in naval ships, and described certain features of the types of apparatuses which have been developed for this application. Three standard types of receivers are described.

# OPERAE MARITIMAE.

## Operae portuales - Tunnels - Canales maritimi - Effossiones fundi marini.

**De Buen Rafael** - Le tunnel sous-marin du Détroit de Gibraltar [Tunnel *submarinum per Sinum Gaditanum*]. Bull. Soc. Océanogr. France, 72, 1265-1274. Paris (1933). **a - 249**

Après avoir donné un résumé du développement réalisé et future des lignes de chemin de fer en Afrique et de leur importance pour la pénétration européenne en Afrique et pour la navigation transatlantique, l'A. illustre l'importance économique et politique que pourrait avoir un tunnel construit au-dessous du détroit de Gibraltar et démontre que sa construction ne présente aucune difficulté au point de vue technique. Histoire du projet de construction du futur tunnel de Gibraltar. Résumé des travaux préparatoires exécutés et en voie d'exécution. Modification de la composition de la Commission du tunnel après la terminaison des sondages géologiques moyennant l'incorporation parmi ses membres de spécialistes en questions ferroviaires. Les quatre Sous-Commissions du Comité. Le profil du tracé du tunnel. Les avantages qu'offrirait la construction du tunnel.

**De Vries & Jansen** - La nouvelle écluse de St-Andries [*Clausum, recentiore tempore ædificatum, in* St. Andries]. 4 fig., Ann. Trav. Publ., XXXV, sér. II, 4, 635-641. Paris (1934). **a - 250**

Cette construction constitue le commencement d'exécution du programme de travaux élaboré en vue de l'amélioration des capacités d'évacuation, des grands débits de la Meuse. Cette écluse mesure 14 m. de largeur, 110 m. de longueur.

**Giani Armando** - Risultamenti di studi idrodinamici, nautici e commerciali sul porto di Livorno e sul miglioramento ed ingrandimento del medesimo pel Comm. Alessandro Cialdi [*Resultatus ex studiis hydrodinamicis, nauticis, commercialibus ab Alexandro* Cialdi *peractis pro amplificatione Portus Liburni*]. 2 cartine f. t., Riv. Cult. Mar., IX an., 9/10, 377-395. Roma (1934). **a - 251**

Riesumazione di un antico scritto del 1852-1855 di carattere polemico-scientifico ancor oggi importante. Documentazione di primato italiano in applicazioni nautiche.

**Giordano A.** - Les progrès dans le port de Naples [*De progressibus in portu Neapolitano*]. La Mediterranée, a. V, 55. Paris (1933). **a - 252**

**Giordano A.** - Le port de Palermo [*Portus Panormitanus*]. La Méditerranée, a. V, 58. Paris (1933). **a - 253**

**Jaarsma W.** - De Friesche zeeweringen van 1825 tot 1925. Honderd jaren uit de geschiedenis van de zeedefensie in de provincie Friesland. Uitg. door het Provinciaal Bestuur van Friesland [*De molibus foraneis contra maris actionem ædificatis in* Friesland. *Auctoritates Provinciales Frislandicae curaverunt*]. 1 carta (pianta), 294 pp., Noord-Ned. Boekhandel. Leeuwarden (1933). **a - 254**

L'inondazione del 1825 e le sue conseguenze. Progetti per migliorare le dighe ; la loro realizzazione ; costi, difficoltà. Rapporti storici, dati ufficiali sulle dighe durante 1889-1925. In un appendice vengono trattate « Le dighe frise e l'ultimazione dello Zuiderzee » ; inoltre vi sono dati sui livelli massimi del mare nelle inondazioni durante il secolo sulla regolamentazione del 1888. Bibliografia.

**Karyghine N.** - Programme des travaux capitaux pour 1934 [*Ratio operum fundamentalium a. 1934*] (En russe). Vodn. Transp., 12, 24-25. Moskva (1933). **a - 255**

Liste abrégée des principaux travaux d'extension et d'amélioration exécutés dans les ports de l'U. R. S. S. ; informations sur la construction de nouveaux canaux, barrages, digues, écluses, etc., de nouveaux chantiers pour la reparation des bâtiments avariés ; indications concernant le programme technique et financier des travaux qui devront être exécutés en 1934.

**Lebedew A. F.** - Ueber den geschichteten Torf-Sandschirm in Sanddämmen und Deichen [*Præsidium stratificatum, sabula et torba constitutum, in sæptis et aggeribus arenosis*] (In russ., dtsch. Rés.). 2 Fig., 4 Tab., Mém. Inst. Hydrol., 2, 403-415. Léningrad (1933). **a - 256**

Ergebnisse einer im hydrotechnischen Laboratorium ausgeführten Untersuchung, im Zusammenhang mit dem Kanalbau zur Verbindung des Weissen und des Baltischen Meeres miteinander. Praktischer Vorschlag betreffend den geschichteten Sandschirm- und Sanddämmenbau. Vorzüge eines solchen Schirmes gegenüber dem reinen Torfschirme und gegenüber einem Schirme aus einer Mischung von Torf und Sand.

**Ourvantzev N. N.** - Sur la question de la construction d'un port dans l'embouchure du fleuve Léna [*De portu ad accessus fluminis* Lena

*ædificando*] (En russe). Arctica, 1, 187-188. Léningrad (1933). **a - 257**
En vue de l'organisation de voyages maritimes réguliers dans l'embouchure du fleuve Léna pour le transport des marchandises dans la République Soviétique de la Yakoutie et pour faciliter les exportations de cette région vers la métropole, la question a surgi de la construction d'un port dans le delta du fleuve. Dans la présente note quelques observations sont formulées sur la construction de ce port.

**Ourvantzev N. N.** - Sur la question de la construction d'un port charbonnier dans l'embouchure du fleuve Yénissej [*De portu pro muneribus carboniferis ad accessus fluminis* Yenissej *ædificando*]. Arctica, 1, 189-190. Leningrad (1933). **a - 258**
Quelques considérations au sujet de la construction d'un port dans la delta du fleuve Yénissej en relation avec le développement de la navigation sur la Voie Maritime du Nord et l'extraction du charbon des minières de la région.

**Randolph E. S.** - More Water for the Panama Canal Provided by the Madden Dam Project now under Construction on the Chagres River [*De canali Panamensi eiusque constructionibus additiciis*]. 8 phot. charts, diagr., Civ. Engineering, II, May, 283-288. Easton (1932). **a - 259**

**Sorokine P. P.** - Constructions portuaires [*Constructiones portuales*] (En russe). Vodn. Transp., 10, 15-16. Moskva (1933). **a - 260**
Les progrès dans les constructions portuaires de la Russie après la révolution. Description des travaux exécutés par le Gouvernement Soviétique dans les ports maritimes de l'Union en vue de l'amélioration des conditions de chargement du bois, du blé, du pétrole, du charbon et du minerai. Informations succinctes sur la construction de frigorifique, de môles, de débarcadères, de dépôts et sur les améliorations apportées au transport des passagers dans les différents ports de l'U. R. S. S.

**Sorokine P. P.** - Sur l'augmentation du coefficient du travail utile des grues portuaires pendant le travail du transbordement des chargements [*De grus portualibus earumque labore utiliter peracto, operibus perdurantibus*]. (En russe). 3 fig., 2 tabl. Vodn. Transp., 11, 35-37. Moskva (1933). **a - 261**
Quelques indications sur les moyens qui permettent d'intensifier le rendement des grues portuaires avec référence spéciale à la nécessité de mécaniser dans la mesure du possible tous les travaux de déchargement et de transbordement.

**Sousline P.** - Emploi des rectificateurs à mercure dans les ports maritimes [*De utilitate percipienda ex rectificatoribus mercurio præditis in portibus maritimis*] (En russe). 2 fig., Vodn. Transp., 10, 33. Moskva (1933). **a - 262**
Quelques données sur l'emploi des rectificateurs à mercure dans certains ports étrangers dans le but d'augmenter le coefficient de puissance des installations électriques portuaires.

**Stüwe** - Trockenlegung der Zuider-See und des Frischen Haffes. Vergleiche und Folgerungen [*De* Frisches Haff *et* Zuiderzee *exsiccatis. Comparationes et conclusiones*]. Schr. d. Phys.-ökon. Ges. Königsberg i Pr., LXVIII, 1, 107. Königsberg (1933). **a - 263**

**Thysse J. Th.** - L'influence de la fermeture du Zuidersee sur le régime des marées le long des côtes Néerlandaises [*De* Zuiderzee *exsiccato eiusque influentia in regimen æstuosum præter litora Hollandica*]. Bull. Assoc. Perm. Congrès de Navigat., Janv., 59-85. Bruxelles (1933). **a - 264**

**Veretenov V.** - Mécanisation du travail du chargement et du déchargement dans les transports par voi de l'eau [*Mechanisatio operum subvectionum per aquas*]. 4 fig., 1 tabl., Vodn. Transp., 10, 17-19. Moskva (1933). **a - 265**
Quelques informations sur les installations mécaniques construites pour le chargement et le déchargement du charbon, des métaux, des minerais, du blé, etc., dans les ports maritimes de l'U. R. S. S.

**Zinevitch D.** - Le nouveau « slip » d'Astrakhanj [*De novo « slip » ex* « Astrakhanj »] (En russe). 5 fig., Vodn. Transp., 5, 8-11. Moskva (1933). **a - 266**
Description des détails de construction d'un nouveau « slip » dans le port fluvial d'Astrakhanj qui est actuellement la plus grande construction existante de ce genre, vu les dimensions des bâtiments qu'il peut soulever et qui y sont introduits pour l'exécution des réparations nécessaires.

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**M. L.** - Progetto di tunnel sotto lo stretto di Shimonoscki [*Ratio* tunnel *ædificandi per Strictum* Shimonoscki]. Riv. Maritt., a. LXVII, 2 (Suppl.), 31-32. Roma (1934). **a - 267**
Gli studi relativi a codesto tunnel sono stati abbandonati per timore di azioni di bombardamento.

**M. L.** - Base di Singapore [*Portus ac basis urbis* Singapore]. Riv. Maritt., a. LXVII, 5 (Suppl.), 28-30. Roma (1934). **a - 268**
Lavori recenti ad armamenti di questa potente base navale in continuo progresso.

**M. L.** - Progetto di un porto mercantile e militare a Mosca [*Ratio portus commercialis ac militaris Mosquæ ædificandi*]. Riv. Maritt., a. LXVII, 9 (Suppl.), 34. Roma (1934). **a - 269**
Progetto pel quale Mosca dovrebbe diventare un porto marittimo. Navi di più di 10.000 Tonn. potrebbero raggiungerlo.

**An.** - Lavori nel porto di Honolulu [*De operibus in portu* Honolulu]. Riv. Maritt., a. LXVII, 2 (Suppl.), 21-22. Roma (1934). **a - 270**
Stanziamenti di capitali per importanti miglioramenti portuali e fluviali.

## Operae submarinae - Mersiones - Scaphandrarii - Cava.

**Davis R. H.** - Deep Diving and Under-Water Rescue [*Immersiones in profundum ac rerum recuperationes in maris profunditatibus*]. R. Soc. Arts Journ., LXXXII, 4266/4267/4268/4269, 1032-1047, 1049-1065, 1069-1080, 1083-1101. London (1934).
(—) See also : Engineering, CXXXVII, 3555, 268-269 and 3557, 324. London (1934). **a - 271**
On diving appliances and their evolution. Historical review.

**Heyrelles François** - Recherches au fond de la mer au XIII-ème siècle [*Investigationes in fundum marinum sec. XIII°*]. 6 fig., Bull. Soc. Océanogr. France, 74, 1308-1309. Paris (1933). **a - 272**
Extrait du texte d'un traité du XIII-ème siècle qui semble contenir le témoignage de la première descente sur le fond de la mer dans un but scientifique.

**Osti Arrigo** - Relazione sul premio 1932 della fondazione nazionale tecnico-scientifica « Principe di Piemonte » [*Relatio de præmio pro a. 1932 Fundationis Nationalis technico-scientificæ* « Principe di Piemonte »]. VI, 1, 17-23. Roma (1934). **a - 273**

Apparecchio per ricevere segnali cablografici ad una velocità superiore del 30 % a quella consentita con gli apparecchi ora in uso. Apparecchio ricevitore di segnali cablografici e telegrafici capace di adempiere contemporaneamente o separatamente le funzioni tanto degli apparecchi riperforatori, quanto degli apparecchi ritrasmettitori.

**Pupin M. I.** - Impedance Curves of Composite Cable [*Curbæ impedentiæ in cavis compositis*]. Electr. Engr., LII, 2, 115-118. London (1933). **a - 274**

Analytical paper. Study for devising means of extending the range of high speed signalling. The submarine cable here dealt with is composed of both loaded and unloaded sections.

**Schwarz Albert** - Bewuchs an Schiffsböden [*De animalibus navium carinis noxiis*]. 2 Abb., Nat. u. Mus., LXIII, 12, 428-431. Frankfurt a. M. (1933). **a - 275**

Dieser Bewuchs bietet manchmals durch seine Dichte dem Schiff viele Schwierigkeiten dar, die eine erhöhte Maschinenleistung erfordern, wie es aus den mit amerikanischen Schlachtschiffen von dem « National Council of American Shipbuilders » angestellten Versuchen hervorgeht.

**Vogel** - Tiefseebergungen [*De vitæ rerumque conservatione maxima profunditate*]. Schiffbau, XXXIV, 24, 439-441. Berlin (1934). **a - 276**

Allgemeine Beobachtungen.

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**An.** - Cables Across Belfast Harbour [*Cava submarina per Portum* Belfast]. Electr. Times, LXXXVI, 2235, 225-226. London (1934). **a - 277**

Submarine cables together with 12 pair pilot and telephone cable.

# VARIA.

## Res nauticae - Folklore - Historia politica, militaris et mercatoria marium - Vocabularia nautica - Legislatio nautica.

**Aiello G. L.** - Il mare nella vita e nella poesia di Lord Byron [*De mari ac arte navigandi apud* Byron]. Riv. Cult. Mar., a. IX, 9/10, 414-424. Roma (1934). **a - 278**

**Albitreccia Antoine** - La Marine Française en 1931 [*De classe Gallica a. 1931*]. Ann. de Géogr., 238, 416-417. Paris (1933). **a - 279**

Tonnage total de la marine marchande française ; l'âge de ses navires, le nombre des navires désarmés, diminution de l'activité des chantiers navals. Mêmes données comparées concernant les autres pays. Crise de l'armement en France et hors de la France.

**Ballard G. A.** - British Battleships of 1870 : the « Invincible », « Vanguard », and « Iron Duke » [*Longæ naves Britannicæ a. 1870*]. 2 figs., 3 pls., Mar. Mirr., XX, 3, 261-279. London (1934). **a - 280**

Description of design, service and history of the three ships.

**Becchi G. B.** - Osservazioni e note al progetto di Codice marittimo [*Codex maritimus. Observationes et notæ*]. Badino. Genova (1933). **a - 281**

L'A. presentò ai lavori della Commissione per la riforma del Codice per la Marina Mercantile alcune osservazioni ch'egli qui raccoglie. Si tratta di un piccolo volumetto.

**Bertonelli Francesco** - L'Oceano dal cerchio di fuoco [*De Oceano Pacifico*]. 360 pp., Bemporad. Firenze (1934). **a - 282**

L'A. prosegue in questo volume la serie degli studi politico strategici dei vari mari, iniziata con il Nostro Mare. L'Oceano dal cerchio di fuoco è il Pacifico, in quanto è circondato da vulcani sulle coste americane e sulle occidentali.

**Boudet E. L.** - Le Corps de Santé de la Marine et le Service médical aux colonies au XVII-ème et au XVIII-ème siècles (1625-1815) [*Corpus medicorum ad Classem pertinens ac Servitia Medica in Coloniis sec. XVII et XVIII (1625-1815)*]. Géogr., LXI, 3/4, 5/6, 212-231, 342-363. Paris (1934). **a - 283**

I. Le grand siècle maritime et colonial (XVII-ème) ; II. La première moitié du XVIII-ème siècle ; III. La seconde moitié du XVIII-ème siècle (à suivre). Aperçu historique du développement de l'Empire colonial français avec référence spéciale à l'activité du corps médical.

**Boudet E. L.** - Le Corps de Santé de la Marine et le Service médical aux Colonies au XVII-ème et au XVIII-ème siècle (1625-1815) (Fin.) [*Corpus medicorum ad Classem pertinens ac Servitia Medica in Coloniis sec. XVII et XVIII (1625-1815)*]. Géogr., LXII, 1/2, 44-52. Paris (1934). **a - 284**

Fin de l'article, dont les chapitres précédents ont été publiés dans les nn° mars-avril, p. 212 et mai-juin, p. 342, 1934 de la même revue. La Révolution et l'Empire.

**Brendt Alexander (Hrsg.)** - Weyers Taschenbuch der Kriegsflotten [*Navium catalogus* Weyer *nomine*]. XXVIII Jahrg., Lehmanns -Verlag. München (1934). **a - 285**

**Bruce R. Stuart** - More About the Sixerns [*De notandis naviculis ad* Shetland *pertinentibus*]. 4 figs., Mar. Mirr., XX, 3, 312-322. London (1934). **a - 286**

Supplementary information of these fine open boats for deep sea fishing, to complete the preceding article of the author on the sixerns of Shetland (Mar. Mirr., IV, Sept. 1914, 289-300). Description of the design of the boat and the sails, the appearance, the work of the fishers and mariners on board. Some stories of the building of sixerns by old men.

**Bryant Samuel W.** - The United States Navy and the Merchant Marine [*Classis Regia ac Mercatoria ad Americæ Provincias Foederatas pertinentes*]. U. S. Govmt Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 86-89. Washington, D. C. (1933). **a - 287**

Brief outline of the interrelation between the Navy and the merchant marine during the history of the American nation.

**Casseville H.** - Le problème du Pacifique [*De Oceano Pacifico*]. Rev. deux Mondes, 15 Févr. Paris (1934). **a - 288**

**Charcace (de)** - Braza à l'Ecole Navale [*Dom.* Braza *alumnus Scholae nauticæ*]. Ass. Amis Musée Marine, I-er Bull. Trim., 111-112. Paris (1933). **a - 289**

Petite anecdote qui montre la grande énergie de Pierre de Braza, dont le courage et la ténacité ont donné plus tard le Congo à la France.

**Chatterton Keble E.** - L'Escadre muette [*De classicula ad Almiragium* Dudley *pertinente cuius nomen est Classicula muta*]. 350 pp., Payot. Paris (1933). **a - 290**

Traduit de l'Anglais. Ce sont les aventures de la dixième escadre des croiseurs de l'Amiral Dudley de Chair.

**Chevalier H.** - Vie et aventures du Capitaine des Corsaires Tam Souville [*De pirata* Tam Souville. *Vita et Fortunæ*]. Plon. Paris (?). **a - 291**

**Copeland Royal S.** - Financial Aids to Shipping [*De adsistentia pecuniaria navigationi*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 19-27. Washington D. C. (1933). **a - 292**

The author illustrates the aids granted in various countries to the commercial marine and claims for the necessity of the American merchant marine to be preserved, and that construction loans, mail subventions, and other aids to American shipping are essential for its success.

**Corbino E.** - La Marina Mercantile nella vita economica e nel quadro delle forze militari di una nazione [*De classe mercatoria pro oeconomia et copiis cuiusdam nationis*]. Riv. Maritt., Anno LXVII, 4, 3-17. Roma (1934). **a - 293**

**Croppi Giorgio** - Carrette della Collana: I libri del mare [*Pyroschaphi mercatorii*]. P. De Fornari & C. Genova (1934). **a - 294**

Storia di un giovane capitano che ascende, con animo virile e attraverso privazioni e stenti, la dura via della marina mercantile da carico.

**Dade E.** - Sails and Oars. A North Sea Sketchbook [*De velis remisque. Navigatio per Mare Nordicum*]. Dent. London (1933). **a - 295**

**D'Agraives J.** - Le fléau de Neptune [*Res nauticae*]. Berger Levrault. Paris (1934). **a - 296**

**Davis G. M.** - A French-English Vocabulary in Geology and Physical Geography [*Vocabularium Geologiæ et Geographiæ Physicæ Gallicum et Anglicum*]. Thomas Murby & Co. London (1932). **a - 297**

**Dawson L.** - Mediterranean Medley [*Res nauticæ ad Mediterraneum pertinentes*]. Rich & Cowan Ltd. London (1933). **a - 298**

Ship memories. Adventures during the three years following the armistice in the Mediterranean and in the Black Sea. Hints of Fiume events.

**De Zara Ph.** - Autour de la mer latine [*De maribus latinis*]. Nouv. Ed. Latines. Paris (?). **a - 299**

**Emery James A.** - Relation of Shipping to Manufactures [*De correlatione inter classem mercatoriam et industriam*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 33-36. Washington, D. C. (1933). **a - 300**

The author illustrates the rôle and the importance of the merchant marine for the export trade facilities, and gives an historical account of its development in relation with foreign trade. He claims that « an American merchant marine, American built, owned, manned, and operated is essential to the foreign trade of the American manufacturer ».

**Endresen Fridtjof** - Et besøk på Gjøa høsten 1932 [*Navis* Gjøa, *visitata autumno 1932*]. 1 fig., Norsk Geogr. Tidsskr., IV, 5, 331-335. Oslo (1932). **a - 301**

Short account of the A:s visit to Amundsen's ship « Gjøa » kept at Golden Gate Park, San Francisco, and its restoration.

**Eulemburg** - (Souvenir du Prince) Croisières à bord du « Hohenzollern » (1889-1903) [*De navigationibus speculatoriis in navi* « Hohenzollern » (*1889-1903*)]. Payot. Paris (1934). **a - 302**

Il s'agit de quatorze voyages que le Prince fit avec l'Empereur dans les pays du Nord. Ce volume est en même temps une étude psychologique sur l'Europe.

**Fabietti Ettore** - Cristoforo Colombo (nella storia delle esplorazioni geografiche) [*Christophorus* Colombo *ex historia explorationum geographicarum*]. ill. carte e tav. f. t. compresa la « carta di Colombo » recent. scoperta, Tip. Stab. Grafici A. Vallecchi, 195 pp., Firenze (1933). **a - 303**

La Terra, Colombo e la gloria. Le conoscenze geografiche prima di Colombo: l'Oriente e l'Occidente. Chi era Colombo. I primi anni. Lontano dal nido. Agente di commercio. Colombo e Paolo Toscanelli. La prima ripulsa. Colombo in Ispagna. La dura vigilia. Il primo viaggio sul mare Oceano. Le prime scoperte e il ritorno trionfale. Il secondo viaggio. Il terzo viaggio. Colombo mette piede nell'America del Sud. Il quarto viaggio. Gli emuli. Infatuazione mistica. Il tramonto.

**Farrère C. & Chack P.** - Sur mer [*Res nauticæ*]. Flammarion. Paris (1933). **a - 304**

**Ferguson Homer L.** - The Need of a Definite Replacement Program [*Ratio navium ædificandarum*]. 1 table, U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 50-52. Washington, D. C. (1933). **a - 305**

On hand of the history of the American Shipbuilding, as exemplified by the shipyard of the Newport News Shipbuilding & Dry Dock Co., the A. deals with the wide variation in types of vessels during various years, and shows that the need of definite replacement program is quite as great on the part of the owner in the long run as it is for the builder.

**Fugassa A.** - Grandi Corsari [*De Piratis*]. Corbaccio. Milano (1934). **a - 306**

**Führbringer** - Alarm! Tauchen! [*Fortunosae navigationes navium submergibilium*]. Ullstein. Berlin (1933). **a - 307**

Unterseeboots- und Kriegs-Abenteuer.

**Furuseth Andrew** - Remarks [*Observationes*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan 4-5, 1933, 66-73. Washington, D. C. (1933). **a - 308**

Mr. Furuseth, President of the International Seamen's Union, emphasizes here the rôle of seamen as the basis of sea power.

**Galilei Galileo** - Opere [*Opera omnia*]. Vol. VII. Ristampa dell'Edizione Nazionale. Sotto gli auspici del Ministero dell'Educazione Nazionale, della R. Accademia dei Lincei e del Consiglio Nazionale delle Ricerche, tav. e illustr., 755 pp., G. Barbèra. Firenze (1933). **a - 309**

I due massimi sistemi del mondo. Dialogo sopra i due massimi sistemi del mondo. Frammenti attenenti al Dialogo sopra i due massimi sistemi del mondo. Dal libro di G. B. Morin famosi et antiqui problematis de Telluris motu vel quiete, hactenus optata solutio. Con le note di Galileo. Esercitazioni filosofiche di Antonio Rocco. Con postille di Galileo. Indice dei nomi.

**Galilei Galileo** - Le Opere [*Opera omnia*]. Vol. IX. Ristampa dell'Edizione Nazionale. Sotto gli auspici del Ministero dell'Educazione Nazionale, della R. Accademia dei Lincei e del Consiglio Nazionale delle Ricerche, 313 pp., Tip. Barbèra, Alfani e Venturi, proprietari. Soc. An. G. Barbèra. Firenze (1934). **a - 310**

Nel volume sono raccolti, separando le prose dalle poesie, gli scritti letterari di Galileo, e cioè: Due lezioni all'Accademia Fiorentina circa la figura, sito e grandezza dell'Inferno di Dante. Considerazioni al Tasso. Postille all'Ariosto. Argomento e traccia d'una commedia. Poesie e frammenti. Appendice prima: Canzone di Andrea Salvadori per le stelle Medicee scritta e corretta di propria mano da Galileo. Appendice seconda: Saggio di alcune esercitazioni scolastiche di Galileo. Indice dei nomi. Appendice.

**Gardner Howland J.** - The Naval Architect and the Merchant Marine [*Navium artifex ac mercatoria classis*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 40-44. Washington, D. C. (1933). **a - 311**

Picture of the obsolescence of the American fleet in relation to those of other nations. Summary of the program of the Congress relating to merchant marine. Story of the Society of Naval Architects and Marine Engineers of America. Appointing by the Society of a Committee for the study of the program of naval construction for the United States. Matters considered in the report drafted by the Committee. Collaboration between the Society and the Shipping Board. Some comments upon the International Convention on Safety of Life at Sea, realised on January 1st, 1933.

**Giannini A.** - Il regime degli stretti [*De regimine fretorum*]. Oriente moderno, XII, Apr. 177-193. Roma (1932). **a - 312**

**Giannini Torquato C.** - Virgil Poet of the Sea [*Virgilius maris poëta*]. Mar. Mirr., XX, 3, 293-311. London (1934). **a - 313**

Comment of Virgil's poetry which reveals a remarkable acquaintance with the geography not only of the Adriatic, but also of the Aegean sea.

**Glover W. Irving** - The Post Office Department and the Merchant Marine [*Administratio cursuum publicorum ac Marina mercatoria*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 27-33. Washington, D. C. (1933). **a - 314**

Defense of the Merchant Marine Act by the Second Assistant Postmaster General, and of the financial policy of the American Government concerned with Merchant Marine.

**Gneme G.** - Le conferenze internazionali di telegrafia e radiotelegrafia di Madrid [*Conferentiæ internationales Matritenses pro Telegraphia et Radiotelegraphia*] (Fine). Rass. Poste, Telegr. e Telef., 1/2/3, 4-18, 68-75, 150-158. Roma (1933). **a - 315**

Rassegna degli argomenti trattati alla Conferenza.

**Griffiths Maurice** - The Magic of the Swatchways [*De* Swatchways *earumque magia*]. Arnold & C°. London (1932). **a - 316**

Croisières dans l'Estuaire de la Tamise. Descriptions artistiques et conseils pratiques.

**Guillen y Tato D. Julio F.** - Exvotos marineros, su origen, clases, arte y técnica [*Vota nautarum. Origines, classificatio, ars et technica*]. 48 tabl., Bol. Soc. Geogr. Nac., LXXIV, 1, 7-28. Madrid (1934). **a - 317**

Conferencia leida en la Sociedad Geogràfica Nacional el dia 5 de Junio 1933.

**Guillen y Tato D. Julio** - En la agonia de la marina de vela [*Exitus classis velicæ*]. Bol. Soc. Geogr. Nac., LXXIV, 3, 151-153. Madrid (1934). **a - 318**

Historia en sintesis de la agonia de la vela, de la brava agonia del velero, al que tanto deben la Geografia y la Cultura.

**Hornell James** - The Origin of the Junk and Sampan [*De naviculis* junk *et* sampan. *Quæstio de originibus*]. 3 pls., Mar. Mirr., XX, 3, 331-337. London (1934). **a - 319**

Historial account of the development of the junk and the sampan, whose every feature of structure reveals an origin different from that of the European type of sailing ship. This circumstance conducts the A. to the conclusions that sampans and junks are developments and descendants of shaped rafts and must have had a common ancestor.

**Jenkins J. Caldwell** - Shipping Legislation [*Legislatio navalis*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 89-94. Washington, D. C. (1933). **a - 320**

Latest development of the American shipping legislation with especial regard to the policy of the American Steamship Owners' Association, and the scope and duties of the American Shipping Board.

**Katz R.** - A zonzo per quattro continenti [*Navigatio per orbem*]. Soc. Ed. Genio. Milano (1934). **a - 321**

**Kent Fred I.** - International Trade and Shipping [*Commercium internationale ac navigatio*]. U. S. Govmt Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 52-60. Washington, D. C. (1933). **a - 322**

Correlation between the problems of the shipping industry and those concerned with the decrease of international trade. Necessity of an agreement between the nations for the good of all. General presentation of the great forces which have curtailed and are killing international trade 1. Excessive taxation, 2. Allied debts, 3. Depreciated currencies and 4. Trade barriers.

**Kenworthy J. M.** - Sailors, Statemen and others [*De quibusdam nautis ac viris politicis*]. Rich & Cowan. Ltd. London (1933). **a - 323**

**Kerr Mark** - The Navy in My Time [*De classe hodierno tempore*]. Rich & Cowan Ltd. London (1933). **a - 324**

The author who had been naval attaché at Constantinople, and later with the Greek Navy, had worked out with his staff a detailed plan for a Greek attack on the Dardanelles but was not consulted when the British attack was put under way. There are also some chapters of pure technical character.

**Kirkpatrick J. B.** - Little Ship Wanderings [*De navigationibus in navicula quadam*]. 254 pp., Edward Arnold & Co., London (1933). **a - 325**

The author conducts the reader through the Thames estuary, the Channel, the Bay of Biscay, and the North Atlantic in various crafts and companies. Each chapter of his book contains much sailing lore and a good deal of practical geography.

**Kühlwetter Frederick** - Skagerrak [*De Skagerrak*]. Ullstein. Berlin (1934). **a - 326**

Das Werk gibt ein klares Bild des Alltagslebens der Offiziere und Matrosen während des Krieges. Das deutsche Teilnehmen an der Schlacht bei Jutland.

**Le Fevre G.** - La croisière jaune [*Res nauticæ*]. Plon. Paris (1933). **a - 327**

**Leidenfrost Gyula** - A titänok harca [*Enarrationes fabulosæ*]. (En hongr.). 7 fig., A Tenger, XXIV, 1/6, 6-18. Budapest (1934). **a - 328**

Sur la base des travaux du moyen âge et des ouvrages contemporains l'A. décrit des batailles plus ou moins fabuleuses entre monstres marins et navigateurs.

**Le Mouel Eugène** - Mont Saint-Michel au péril de la mer [*De monte* Saint-Michel *cui maris periculum impendet*]. pl., 254 pp., La Renaiss. du Livre. Paris (1932). **a - 329**

**Lorsy** - L'appel de la mer [*Mare vocat*]. Yachts & Yachting, V ann., 50, 119-122. Paris (1934). **a - 330**

**Luards L.** - All Hands. Seven Stories of the Sea [*Enarrationes nauticae*]. Lane. London (1933). **a - 331**

**Lubbock Basil (Ed.)** - Barlow's Journal [*Diarium ad* Barlow *pertinens*]. 2 Vols. 8 col. pls. 64 reprod., Hurst & Blackett Ltd. London (1933). **a - 332**

This work is transcribed by the A. from the original manuscript formerly in the possession of Admiral J. S. Yorke. Description of Barlow's life at sea in King's ships, among East and West Indiamen and other merchantmen from 1659 to 1703 Finally there is a vivid description of the great gale of 1703 when half England was laid in ruins.

**Lubbock Basil** - The Opium Clippers [*De navibus opium ferentibus*]. 392 pp., Charles E. Louriat Co. Boston (1933). **a - 333**

The first Opium War (1839-42). Opium traffic (1825-60). Typhoons, shipwrecks, piracy, murder, mutiny, accidents. Beautifully illustrated.

**Makarov A. N.** - Précis de droit international [*Quæstiones juris internationalis*]. Marcel Giard. Paris (1933). **a - 334**

**Mandillo F.** - Yachting e Marina Lusoria [*De pamphiliis ac navigatione delectandi causa*]. 6 fig., Riv. Cult. Mar., IX an., 9/10, 283-298. Roma (1934). **a - 335**

Questioni filologiche e storiche.

**Manfroni C.** - I Colonizzatori [*De colonis*]. II (Opera del Genio Italiano all'Estero), Libreria dello Stato. Roma (1933). **a - 336**

Libro di storia coloniale Mediterranea.

**Markov F. A.** - Die Wasserfrage in der gegenwärtigen künstlerischen Literatur [*De aqua eiusque quæstionibus in litteris hodiernis*]. (In russ., dtsch. Rés.). Mém. Inst. Hydrol., X, 435-452. Léningrad (1933). **a - 337**

Einige Angaben über die Behandlung hydrologischer Probleme, Beschreibung von Wasseranlagen und Werken, welche man in der gegenwärtigen Sowietliteratur finden kann.

**Marryat** - Il Signor Easy aspirante di marina (Traduzione di Mascia M.) Collana «I Libri del Mare» della Lega N. I. [*Enarrationes nauticæ ad docendum*]. P. De Fornari & C. Genova (1934). **a - 338**

Prima traduzione del classico libro di Capt. Marryat — l'educatore della Marina Britannica — Midshipman Easy.

**Martin Vergara Gabriel Maria** - Algunas adivinanzas infantiles de carácter geografico [*Parva geographica ac meteorologica*]. Bol. Soc. Geogr. Nac., LXXIII, 7, 463-478. Madrid (1933). **a - 339**

Adivinanzas de carácter geográfico y meteorológico que andan de boca en boca para entretener los niños y hacerles comprender lo que son as cosas que mas llaman su atención.

**Marulli Joel** - Gli Italiani nei traffici e nelle scoperte marittime [*Itali eorumque historia pro commercio maritimo ac explorationibus*]. Stab. Tip. F. Zappa. La Spezia (1933). **a - 340**

Libro di storia volgarizzata ad uso della gioventù con lo scopo di far conoscere opere e nomi degli Italiani che, con alterna fortuna, servirono sui mari la causa della civiltà e del progresso.

**März Joseph** - Die Adria - Frage [*Quæstio hadriatica*]. Kurt Wowinckel. Berlin (1934). **a - 341**

Lunga analisi della storia dell'Adriatico. Lotta per la supremazia. Azione della nuova Italia.

**Masefield John** - The «Conway» [*De navi* «Conway»]. W. Heinemann Ltd. London (1933). **a - 342**

The school-ship «Conway» has furnished many officers to the British Navy. Here the A. gives us the history of the ship and interesting news about the sailors' training.

**Massey R. R.** - Work of the American Merchant Marine Library Association [*De Societate pro Bibliothecis classis mercatoriæ eiusque activitate*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 118-122. Washington, D. C. (1933). **a - 343**

Brief résumé of the work of the Association which has been in operation for a period of 11 years, and which provides a free circulating library service for seamen sailing under the American flag, and for men serving in isolated Coast Guard stations, lighthouses, and lightships.

**Maurois A.** - Chantiers Américains [*Navalia Americana*]. Gallimard. Paris (1933). **a - 344**

**Milford Haven** - Naval Medals [*Præmia navalia*]. Londustereoscope. Co. London (1932-1934). **a - 345**

**Modena E.** - La scelta di una carriera. Scherzi della nebbia. Manovra. etc. [*Res nauticæ*]. Riv. Cult. Mar., IX an. Roma (1934). **a - 346**
In tutti i numeri dell'annata sono contenuti vari racconti di vita marinara del presente A. Altri racconti del genere portano lo pseudonimo Ciai-Ka, Emo.

**Moraht (von)** - Werwolf der Meere [*Fabulosæ enarrationes maritimæ*]. Schlegel. Berlin (1933). **a-347**
Unterseeboots- und Kriegsabenteuer.

**Morath (von)** - Il lupo del Mediterraneo [*Enarrationes maritimæ*]. Marangoni. Milano (1934). **a - 348**
Traduzione italiana del libro su accennato.

**Nani Mocenigo M.** - La politica mediterranea di Amedeo VI di Savoia [*Amedeus VI.us di Savoia eiusque politica mediterranea*]. Riv. Cult. Mar., IX an., 1/2, 3/4. Roma (1934). **a - 349**

**Nouhuys (van) J. W.** - En protest en het malle geval der Stephens- eilanden [*Res nauticæ de insula* Stephens]. De Indische Gids, Aug., 710-720. den Haag (1933). **a - 350**

**Pelle de Forges** - Le Yachting sur glace [*De pamphiliis per glacies navigantibus*]. Yachts & Yachting, V ann., 50, 81-86. Paris (1934). **a - 351**

**Petersen W. J.** - Our Trade on the Pacific [*De Americana frequentia mercium per Oceanum Pacificum*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 101-108. Washington, D. C. (1933). **a - 352**
Competition of the American merchant fleet and the foreign-flag lines in the Pacific. Importance of the problem of the control of the Philippine Islands for the development of American trade. The situation of the Panama Canal and its management. Criticism of the statutes of several Departments of Government concerning marine personnel. The situation of alien seamen. Need of a national marine policy for the government of merchant vessels.

**Place Willard** - Railroads and the Merchant Marine [*Ferriviæ ac marina mercatoria*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 37-39. Washington, D. C. (1933). **a - 353**
Brief account on the co-operation of the railroads with the merchant marine of the United States in the carriage of American foreign trade.

**Pondeveaux Léon** - La situation de la flotte de commerce mondiale [*De condicionibus classis mercatoriæ totius mundi*]. La Géogr., Terre, Air, Mer, LXI, 1, 54-55. Paris (1934). **a - 354**
Tonnage d'ensemble de la flotte ; nombre des voiliers, des navires à vapeur et à moteur, des navires-citernes ; valeur comparative des principales flottes du monde ; comparaison entre les différentes marines marchandes du monde.

**Pulleston W. B.** - La spedizione dei Dardanelli [*De expeditione in Hellespontum*]. 118 pp., Ufficio Storico R. Marina. Roma (1933). **a - 355**
Traduzione a cura dell'Ufficio Storico della Marina Italiana dell'opera dello scrittore degli S. U. Libro scritto con imparzialità dal punto di vista di un autore d'un paese che, al tempo, era neutrale.

**Revskij L.** - Struggling against Waves and Snow-storms (Reminescences of a Polar Worker) [*Res nauticæ de navigationibus per tempestates nivis*] (In Jap.). Nin sei chi ri (Geogr. & Ethnogr.), 5, 171-185. Tokyo (1933). **a - 356**

**Robertson A. W.** - Industrial Rehabilitation and the Merchant Marine [*Providentia rebus industrialibus tribuenda ac Marina mercatoria*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 45-50. Washington, D. C. (1933). **a - 357**
History in building and maintaining an American Merchant Marine. Determining factors of a nation's shipping requirements. Actual condition of the American shipbuilding industry. Results of the work of the national committee on industrial rehabilitation, whose objective is to encourage business men to survey their properties with a self-interest to see if there is anything in the way of rehabilitation, modernization, or improvement that can be done with regard to the shipping industry of the United States

**Sachs Hans** - Die Trampschiffart in der Ostsee (unter Einschluss des Weissen Meeres) [*De navibus onerariis earumque navigatione per Mare Balticum et Mare Album*]. 120 pp., Hamburger Wirtschafts- u. socialwiss. Schr. 17. Rostock (1931). **a - 358**

**Salaun** - La Marine Française [*Classis Gallica*]. Les Editions de France. Paris (1934). **a - 359**

**Salvà J.** - La libertad del mar [*Marium libertas*]. Rev. Gen. de Marina, Año LVI, 3/5. Madrid (1933). **a - 360**

**Sandberg S. S.** - Regulation of Water Carriers [*Regulamenta circa subvectiones per aquam*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 75-79. Washington, D. C. (1933). **a - 361**
An account of the work performed by the Committee on Merchant Marine and Fisheries of the House of Representatives, concerned with the statute regulating the rates and practices of carriers by water in both the interstate and foreign commerce of the United State, as well as with the functions of the Shipping Board.

**Sandison Helen E.** - Raleigh's Orders Once More [*De* Raleigh *eiusque dispositionibus*]. Mar. Mirr., XX, 3, 323-330. London (1934). **a - 362**
Some additional information on Raleigh's famous orders for his fleet containing a revision of the conclusions on the evidence of the Stowe manuscript.

**Schultz (von) D. G.** - Ein herauskommender Weltkonflikt [*Agitur de bello totius mundi*]. Mar. Rundsch., April, Berlin (1934). **a - 363**
Posizione marittima del Giappone. Sviluppi della sua politica imperialistica. Preoccupazioni mondiali. Le Filippine. Hong-Kong. Singapore.

**Shalimar F. C. Hendry** - From all the Seas [*Res nauticæ*]. Blackwood. London (1933). **a - 364**

**Slaghek Fabbri L.** - Con gli Inglesi nell'Adriatico [*Navigationes per Hadriaticum cum Anglicis*]. 10 tav. f. t., 219 pp. Ed. Ardita. Roma (1934). **a - 365**
Brano di storia della Grande Guerra nel teatro dell'Adriatico.

**Spindler A.** - La guerre sous-marine. 1) Les préliminaires [*De navibus submergibilibus bello mundiali. 1°) Notæ priores*]. Payot. Paris (1933). **a - 366**

**Squadrilli Edoardo** - Tasse e diritti erariali che interessano la navigazione [*Taxationes ac res ærarii pro navigatione*]. A cura della Lega Navale. Roma (1934). **a - 367**

Manuale pratico di consultazione per uso dei contribuenti e degli uffici. Il manuale è aggiornato.

**Stanley Rogers** - Enchanted Isles [*De insulis pulcherrimis*]. Harrap & Co. Ltd. London (1933). **a - 368**

Artistic book of naval history and literature.

**Steward Malcolm M.** - The Middle West's Interest in the American Merchant Marine [*De regione* Middle West *ac Marina Mercatoria Americana*]. U. S. Govmt. Print. Off., 6th nat. Conf. Merch. Mar., Jan. 4-5, 1933, 94-101. Washington, D. C. (1933). **a - 369**

Interest of the Middle West's foreign trade in a development of the American Merchant Marine. The author emphasizes the necessity of a further development of the merchant Marine in order to improve business conditions in the Middle West's trade. Importance of the shipyards of the Middle West; its general industrial development; necessity of a full support of American shipping for carrying American goods.

**Stokes Ch.** - Cruising in and around the Mediterranean [*De navigatione per Mediterraneum*]. Burrow. London (1934). **a - 370**

**Swain Edward James** - Struggle for Control in the Mediterranean prior to 1848 [*De summo imperio Maris Mediterranei ante 1848*]: The Stratford Company. Boston (1934). **a - 371**

The A. who is a teacher of European History at the Muhlenberg College of Boston studies the English - French relations from ancient times until now.

**Toussoun Omar** - Les Ruines sous-marines de la Baie d'Aboukir [*Relicta submarina Bajæ* Aboukir]. 1 carte, Bull. Soc. Arch. d'Alexandrie, 1-15. Alexandrie (1934). **a - 372**

Comment l'Auteur a eu informations sur ces ruines. Recherches faites avec le concours d'un scaphandrier. On trouve la tête d'une statue d'Alexandre le Grand. L'Auteur, en se basant sur Strabon, Hérodote et Ammien Marcellin conclue qu'une portion importante du territoire égyptien, sur lequel existaient deux villes, chacune avec un temple de grande renommée, ainsi qu'une partie de la plus grande branche du Nil, dans l'antiquité, se trouve actuellement sous les eaux de la mer. Opinion du Prince Omar Toussoun sur les causes possibles du cataclysme.

**Walsh Edmund A.** - The Function of the Merchant Marine in National Economy [*De marina mercatoria eiusque functione pro oeconomia nationali*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 14-19. Washington D. C. (1933). **a - 373**

The rôle of the merchant marine in the building of the greatness of a country, illustrated on hand of historical instances. Tremendous influence of sea power on history. Substantial assistance of the Governments to merchant marine. Wish for a renaissance of the American merchant marine.

**Witshetzky** - La nave nera. Incroc. «Wolf» [*De longa navi* «Wolf» *cui nomen erat navis nigra*]. O. Marangoni. Milano (1934). **a - 374**

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**Ministerio de Marina** - El fichero fotografico del Museo Naval [*Schedularium photographicum in Museo Navali*]. 44 ill., 65 pp., Museo Naval. Madrid (1933). **a - 375**

**Naval War College** - International Law Situations with Solutions and Notes, 1932 [*Situationes juris internationalis cum solutionibus et notis a. 1932*]. U. S. Govmt. Print. Off., 1-47 pp. Washington, D. C. (1934). **a - 376**

Annual volume of international-law topics compiled by George Grafton Wilson, LLD, professor of international law at Harward University. It covers the situations and discussions by the War College class of 1933 upon the questions of the weakness of local authorities in enforcing neutrality; the maritime jurisdiction concerning lighthouses.

**Navy Department Bureau of Navigation** - Regulations Governing the Admission of Candidates into the United States Naval Academy as Midshipmen, and Sample Examination Papers [*De Academia Navali eiusque regulamenta*]. U. S. Govmt. Print. Off., 1-84. Washington, D. C. (1933). **a - 377**

Regulations in general. Nomination. Age and citizenship requirements. Appointments by competitive examination from the regular Navy and Marine Corps. Appointments from the enlisted men of the Naval Reserve and the Marine Corps Reserve. Appointments among the sons of deceased officers, soldiers, sailors, and mariners of the World War. Methods of admission. Moral requirements. Admission based on regular entrance examination. Admission based on certificate and substantiating examination. Entrance procedure and equipment. Course of instruction for fourth-class midshipmen. Sample examination papers.

**Société des Nations** - Grande-Bretagne et Irlande du Nord et Grèce: Echange de notes concernant les passeports des marins. Londres, les 13 et 21 avril 1933 [*Britannia, Hibernia nordica et Græcia: Permutatio notarum circa litteras liberi commeatus maritimi. Londinii 13 et 21 mensis Aprilis 1933*]. Recueil Traités, CXL, 1/2/3/4, 133-138. Genève (1933-1934). **a - 378**

**Société des Nations** - Echange de notes relatif à la reconnaissance réciproque, au Danemark et aux Indes, des certificats de navigation pour les navires à passagers. Copenhague, les 11 févr. et 8 août 1932 [*Dania et Indiæ. Permutatio notarum circa navigationem*]. Recueil Traités, CXL, 1/2/3/4, 369-372. Genève (1933-1934). **a - 379**

**Société des Nations** - Estonie et Grande-Bretagne et Irlande du Nord. Echange de notes comportant un accord modifiant et complétant le Traité de commerce et de navigation, signé a Tallinn le 18 janv. 1926 entre les deux pays. Londres, le 15 juillet 1933 [*Estonia, Britannia, Hibernia nordica. Permutatio notarum de commercio ac navigatione*]. Recueil Traités, CXLI, 1/2/3/4, 33-42. Genève (1933-1934). **a - 380**

**Société des Nations** - Convention et Statut sur le régime international des ports maritimes et protocole. Signés à Genève, le 9 décembre 1923 [*Conventio ac Statutum de regimine internationali portuum maritimorum. Genavæ 9 Decembris 1923*]. Recueil Traités, CXLII, 1/2/3/4, 342. Genève (1933-1934). **a - 381**

**Société des Nations** - Traité de commerce et de navigation entre le Royaume-Uni et la Grèce et déclaration y annexée. Signés à Londres, le 16 juillet 1926 [*Tractatus commercii et navigationis inter Britanniam et Graeciam cum declaratione annexa, Londinii 16 Julii 1926*]. Recueil Traités, CXLII, 1/2/3/4, 343. Genève (1933-1934). **a - 382**

**Société des Nations** - Convention de commerce et de navigation entre l'Estonie et la Grèce. Signée a Tallinn, le 4 janvier 1927 [*Estonia et Græcia. Conventio de commercio ac navigatione.* Tallinn *4 Jaunarii 1927*]. Recueil Traités, CXLII, 1/2/3/4, 347. Genève (1933-1934). **a - 383**

**Société des Nations** - Espagne et Estonie : Convention de commerce et de navigation, avec protocole, signés à Tallinn, le 23 juin 1932, et échange de notes y relatif, de la même date [*Hispania et Estonia. Conventio de commercio et navigatione*]. Recueil Traités, CXLIII, 1/2/3/4, 31-44. Genève (1933-1934). **a - 384**

**Société des Nations** - Angleterre et Argentine : Convention additionnelle au Traité d'amitié, de commerce et de navigation, conclu à Buenos-Ayres le 2 février 1825, avec protocole, signés à Londres, le 1.er mai 1933, et Convention complémentaire avec protocole et annexes, signés à Buenos-Ayres, le 26 septembre 1933, et échange de notes y relatif de la même date. [*Anglia et Argentina. Conventio de commercio et navigatione*]. Recueil Traités, CXLIII, 1/2/3/4, 67-156. Genève (1933-1934). **a - 385**

**Ufficio del Capo di S. M. della Marina Italiana** - Nozioni di Storia Navale [*Historia navalis*]. I, 260 pp., Cappelli. Bologna (1933). **a - 386**

Libro di cultura marinara e trattato di arte navale con esempi tratti dalla storia.

**U. S. Department of Commerce. Bureau of Navigation and Steamboat Inspection** - Merchant Marine Statistics 1933 [*Statisticæ circa marinam mercatoriam*]. 88 tables. U. S. Govmt. Print. Off. 1-118. Washington, D. C. (1933). **a - 387**

I. American tonnage ; II. American tonnage tax ; III. American Seamen ; IV. American water-born commerce ; V. World tonnage ; VI. American undocumented tonnage.

**U. S. Navy Department** - Annual Report of the Secretary of the Navy for the Fiscal Year ending June 30, 1933 [*Relatio annua Administri maritimi a secretis pro anno fiscali exitum habente 30 junii 1933*]. 6 tabl., U. S. Govmt. Print. Off., 2-36. Washington, D. C. (1933). **a - 388**

General. Appropriations. Operations. Personnel. Pay. Health of the Navy. New constructions. Material condition of vessels. Research, developments, and tests. Shore stations. Navy procurement. Offices, boards, and other activities. Navy petroleum reserves. Island governments. U. S. naval policy.

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**D. B. S.** - The Authorship of « The Russian Fleet under Peter the Great » [*Agitur de auctore libri cuius titulus « Classis Russa Petro Magno regnante »*]. Mar. Mirr., XX, 3, 373-376. London (1934). **a - 389**

New information which clears the identity of the author of the « History of the Russian Fleet during the reign of Peter the Great ».

**Erreri** - Cenni sulla Pirateria [*De piratis*]. Riv. Cult. Mar., IX an. 5/6, 431-440. Roma (1934). **a - 390**

Storia della pirateria; nascita, sviluppo insieme con la navigazione. La vita sulle galere. Visione generale internazionale.

**G. R.** - Musées étrangers. Inaugurations à Gothembourg. I. Le Musée Maritime. II. Le bateau viking de Gultabaeck [*Musea externarum gentium. Dies auguralis Gothemburgi. I. Museum maritimum. II. Naves Vikingorum ex* Gultabaeck]. Assoc. Amis Musée de Marine, III, 12, 163-164. Paris (1934). **a - 391**

**J. D. N.** - Définition des mots « Hydrographe » et « Hydrographie » [*De vocabulis « hydrographo » ac « hydrographia » eorumque definitione*]. Rev. Hydrogr., XI, 1, 8-12. Monaco (Princ.) (1934). **a - 392**

Résumé des réponses à la Lettre-Circulaire n° 1-H de 1933 envoyée par le Bureau Hydrographique International à ses membres dans le but de recueillir leur opinion sur les sujets qui sont considérés comme faisant partie des travaux des Services Hydrographiques. Ces différents sujets ont été groupés sous trois catégories : A) les sujets communs à tous les Services ; B) les sujets communs à la majorité des Services ; C) les sujets dont s'occupent seulement les Services de certains Pays. Soumission à l'examen et au choix des Etats - membres des définitions des mots « hydrographie » et « hydrographe » basées sur les opinions exprimées par la majorité des Etats - membres.

**Klaxon** - Dead Reckoning. A Story of our Submarines [*Punctum existimatum. Historia nostrarum navium submergibilium*]. Rich & Cowan. London (1933).

(—) H. M. S. Rich & Cowan London (1933). **a - 393**

**An.** - La marine marchande japonaise [*Classis mercatoria Japonica*]. L'Asie Fr., XXXII, Juillet-Août. 244-247. Paris (1932). **a - 394**

## Biographiae et necrologiae.

**Anisimov V.** - B. I. Erokhine. 1 photo, Bull. Arct. Inst., 4, 183-185. Leningrad (1934). **a - 395**

Obituary.

**Block P.** - The Life of Admiral de-Ruyter [*Vita Almiragii* de-Ruyter]. Benn Ltd. London (1933). **a - 396**

Biography of the Dutch admiral. His youth is dealt with in a particularly interesting manner. Study on naval war and contribution to new documents of the history of the XVII century.

**Boudet** - Une grande figure coloniale : le médecin de marine Harmand [Harmand *medicus nautarum*]. 1 fig., Rev. Marit., 168, 721-731. Paris (1933). **a - 397**

**Boulenger Jacques** (publié par) - Les aventures du capitaine Alonso de Contreras (1582-1633) [*De* Alonso de Contreras (*1582-1633*) *eiusque fortunis*]. Nouv. Biblioth. Voyages, xxiv + 256 pp. Plon, Paris (1933). **a - 398**

Vie de Contreras qui depuis l'âge de quatorze ans se mit à parcourir le monde, d'abord dans la méditerranée, puis en Flandres et aux Antilles sur les galères royales. Il fut marmiton, soldat, marin, capitaine sur mer et sur terre, ermite et chevalier de Malte. Il apprit seul la science de la navigation et dressa une carte de la Méditerranée.

**Bowman Isaiah** - William Morris Davis. 1 photogr., Geogr., Rev., XXIV, 2, 177-181. New York. (1934). **a - 399**

Obituary.

**Cole F. J.** - « J. J. » A Biographical Note [« *J. J.* ». *Notitia biographica*]. 1 fig., James Johnstone Mem. Vol., 1-11. Liverpool (1934). **a - 400**

Biography of the scientist and short review of his achievements.

**Dainelli G.** - Il Principe Esploratore (Il Duca degli Abruzzi) [*De* « Duca degli Abruzzi » *Principe exploratore*]. Boll. Soc. Geogr. It., X, 4/5. Roma (1933). **a - 401**

**De Filippi F.** - Commemorazione nazionale del Duca degli Abruzzi [*De* « Duca degli Abruzzi ». *Commemoratio*]. Riv. Club. Alp. It., LII, 5, Roma (1933). **a - 402**

**Dominik H.** - Biography Sketch of Prof. Dr. Albert Wigand [*Biographia Alberti* Wigand]. Terr. Magn., XXXVIII, 2, 145-146. Baltimore, Md. (1933). **a - 403**

**Drygalski (von) Erich** - Otto Baschin. Naturwiss., XXI, 45, 793-794. Berlin (1933). **a - 404**

Prof. Otto Baschin, Leiter des geographischen Instituts zu Berlin, hervorragender Polarforscher, ist am 4. September 1933 in seinem neunundsechzigsten Lebensjahr gestorben. Seine Veröffentlichungen beziehen sich besonders auf meteorologische, erdmagnetische und luftelektrische Themen.

**Edelstein J. S.** - Alfred Wegener (En russe). Izv. Gosoud. Geogr. Obstsch., LXIV, 5/6, 407-409. Leningrad (1932). **a - 405**

Nécrologue.

**Gavira José** - En commemoración de Mercator [*Commemoratio mercatoriana*]. Bol. Soc. Geogr. Nac., LXXXIV, 5, 288. Madrid (1934). **a - 406**

La pequeña ciudad Flamenca de Rupelmonde ha celebrado el 24 de Septiembre del año pasado grandes fiestas en honor de uno des sus hijos ilustres : el cartógrap Mercator.

**Gernez M. D.** - La vie et l'oeuvre de Jens Sörensen [Jens Sörensen. *De vita operibusque*]. Rev. Marit., mars, 315-355. Paris (1933). **a - 407**

Biographie du fondateur de l'hydrographie danoise qui représente en même temps l'histoire des levés hydrographiques du Danemark.

**Gianfranceschi G.** - Luigi Palazzo [*Aloysius* Palazzo]. Atti Pont. Acc. Sc. N. L., a. LXXXVI, 7, 379-382. Roma (1933). **a - 408**

Commemorazione letta nella Sessione del 18 giugno 1933.

**Ginocchietti A.** - L'Ammiraglio Togo Heihachiro [Toyo Heihachiro *Almiragius*]. 1 fig. f. t., Riv. Cult. Mar., IX an., 7/8, 3-8. Roma (1934). **a - 409**

**Harradon H. D.** - Harlan Wilbur Fisk, 1869-1932. Terr. Magn., XXXVIII, 1, 95-58. Baltimore, Md. (?). **a - 410**

**Hoel Adolf** - Arve Staxrud. 1 photo, Norsk Geogr. Tidsskr., (IV, 6), N° 2, 345-346. Oslo (1933). **a - 411**

Obituary on Captain Arve Staxrud dead on April 4, 1933. He was one of the pioneers in the Svalbard expeditions.

**Hoel Adolf** - Borchgrevink Carsten. 1 fotografia, Norsk Geogr. Tidsskr., V, 2, 69-71. Oslo (1934). **a - 412**

Necrologia di Carsten Borchgrevink, nato nel 1864, morto nel 1934. Esploratore norvegese delle regioni artiche.

**Holtedahl Olaf** - Knud Rasmussen. 1 fotogr., Norsk Geogr. Tidsskr., V, 1, 1-3. Oslo (1934). **a - 413**

Nato in Groenlandia nel 1879, morto nel 1933. Esploratore della Groenlandia. Lascia molte pubblicazioni, specialmente riguardanti la Groenlandia.

**Jaeger C.** - F. Spiess. Präsident der Deutschen Seewarte [F. Spiess, *præses in* Deutsche Seewarte]. Ann. d. Hydrogr., LXII, 8, 313-314. Berlin (1934). **a - 414**

Biographische Notiz und Liste der Veröffentlichungen des am 14. August 1934 zum Präsidenten der Deutschen Seewarte ernannten Konteradmiral a. D., Dr. Phil. h. c. Fritz August Spiess.

**Joubin L.** - Le Prof. Johannes Schmidt. - Bull. Soc. Océanogr. France, 71, 1264. Paris (1933). **a - 415**

Nécrologue.

**Kerr Mark** - The Sailor's Nelson [Nelson *nauta*]. Hurst & Blackett. London (1933). **a - 416**

**Lindsay Martin** - The Epic of Captain Scott [*Epos Cap.* Scott]. ills. & sketch-map. Peter Davies, 178 pp. London (1933). **a - 417**

Brief description of the well-known incidents of Scott's resolute march to the South Pole and of his terrible return journey to the last camp. In the introductory portion of the book are given a sketch of Antarctic explorations before the twentieth century and a summary of the work of Scott on the « Discovery » expedition.

**Lucas Frederic A.** - With Foreword by H. F. Osborn - Fifty Years of Museum Work. Autobiography, Unpublished Papers, and Bibliography of Frederic A. Lucas, Sc. D. [*De operibus quinquaginta annos in museo peractis. Autobiographia, opera inedita, bibliographia operum Frederici A.* Lucas *Doct. Sc.*]. 5 ills., Amer. Mus. Nat. Hist., iii - x, 3-81. New York (1933). **a - 418**

The present publication contains a brief foreword by H. F. Osborn which is a summary of Dr. Lucas' activity during fifty years and the autobiography of the latter, intitled « Fifty Years of Museum Work », followed by three unpublished papers and addresses : « A Naturalist's View of Museums of Art », « Museum and Libraries » and « The Poverty of the Large Museum ». The book is closed by a bibliographic list containing 365 titles of the works of Dr. Lucas.

**Manaresi A.** - Luigi di Savoia [*Aloysius* di Savoia]. Riv. Club Alp. It., LII, 5. Roma (1933). **a - 419**

**Pohl Lucien** - Louis Boutan [*Aloysius* Boutan]. 1 phot. Bull. Soc. Océanogr. France, 78, 1372-1375. Paris (1934). **a - 420**
Nécrologue.

**Pope W. J.** - William Barlow. Nature, CXXXIII, 3365, 637-638. London (1934). **a - 421**
Obituary.

**Sazhine P. & Sadovskij** - Fotij Krylov. 9 fig., Naschi Dostizh., 1, 141-148. Moskva (1934). **a - 422**
Biographie. Description de l'expédition de sauvetage du « Sedov » pour aider le « Malyghin » qui avait eu une avarie dans l'Eisfiord en 1933. Travaux pour la remise à flot du vapeur « Sadko » coulé.

**Sch-Ij A.** - A. M. Sibirjakov. (In Russ. & Engl.). Bull. Arct. Inst., 1, 16-17, 43-45. Leningrad (1934). **a - 423**
Obituary. Account of the work and activity of the explorer of the Russian North.

**Schmücker Änne** - Knud Rasmussen und sein Werk [Knud Rasmussen *eiusque opera*]. 6 fig., Natur u. Volk., LXIV, 5, 190-196. Frankfurt a. M. (1934). **a - 424**

**Seaver George** - Edward Wilson of the Antarctic [Edward Wilson *ac regiones Antarcticæ*]. ills. & maps. John Murray, xxxiv + 300 pp. London (1933). **a - 425**
Life of Edward Wilson. The book begins with the description of the first period of his existence which can be considered as a preparatory one dealing then with Wilson's participation at the Scott's First Antarctic Expedition, on hand of Wilson's letters and diary entries, and describing the part taken by the scientist in Shackleton's Expedition and Scott's last expedition to the South.

**Stefansson Vilhjalmur** - Knud Rasmussen. Geogr. Rev., XXIV, 2, 226-227. New York (1934). **a - 426**
Obituary.

**Tencajoli Oreste Ferd.** - La nascita del Duca degli Abruzzi e l'abdicazione del Re Amedeo [Duca degli Abruzzi *eiusque ortus. De abdicatione Amedei regis*]. Libreria Modernissima. Roma (1934). **a - 427**
Sul triste periodo della Spagna all'epoca della nascita del Principe. Episodi della vita del Re Amedeo e del Duca degli Abruzzi.

**Turley Charles** - Nansen of Norway [Nansen *Norvegicus*]. ills. & sketch-map., Methuen & Co., 210 pp. London (1933). **a - 428**
Simple and faithful narrative of one of the greatest men of our time, put together from published works. Four-fifths of the work is given to the record of exploration in the first half of Nansen's life. A good book for young people.

**Werenskiold W.** - Fridtjof Nansen som Geolog [Fridtjof Nansen *Geologus*]. 1 pl., Norsk Geolog. Tidskr., XI, 3/4, 411-413. Oslo (1932). **a - 429**

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**Ufficio del Capo di S. M. della Marina. Ufficio Storico** - Luigi di Savoia Duca degli Abruzzi. 174 pp., Tip. Uff. Capo di S. M. Roma (1934). **a - 430**
S'inizia la biografia del Principe alla partenza di Amedeo di Savoia dalla Spagna. Sono svolte più ampiamente le parti riguardanti la campagna marittima del compianto Ammiraglio. Le ultime pagine del volume illustrano l'opera del Duca come colonizzatore.

**University Press of Liverpool** - James Johnstone Memorial Volume [James Johnstone. *Opus eius memoriæ dicatum*]. num. figs., & tabl., Lancash. Sea-Fish. Labor., v-vii, 1-348. Liverpool (1934). **a - 431**
Commemorative volume containing papers (23 in number) on various subjects which partake of Johnstone's particular scientific interests, with no formal planning or arranging, contributed by friends of the great scientist.

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**A. A. M. M.** - Claude de Forbin. Chef d'Escadre, 1656 - 1733 [*Claudius* de Forbin *præfectus classiculæ 1656-1733*]. 1 pl., Ass. Amis Musée Marine, 1-er Bull. Tirm., 113-117. Paris (1933). **a - 432**
Récit de la vie du grand homme de mer.

**L. J.** - Le Professeur Alphonse Berger. - Bull. Soc. Océanogr. France, 75, 1328. Paris (1934). **a - 433**
Nécrologue.

**R. N. R. B.** - Knud Rasmussen. - Nature, CXXXIII, 3352, 129-130. London (1934). **a - 434**
Obituary.

**An.** - Henry George Watkins. - Pol. Rec., 5, 5, 5. Cambridge (1933). **a - 435**
Obituary.

**An.** - Obituary (Polar Explorers) [*Necrologiæ Exploratorum polarium*]. 1 ill., Pol., Rec., 7, 3. Cambridge (1934). **a - 436**
The death of Knud Rasmussen, of the Duke of the Abruzzi and other polar explorers.

**An.** - Le Vice-Admiral Hugo Dominik [Hugo Dominik *vicarius Almiragii*]. Rev. Hydrogr., XI, 1, 7. Monaco (Princ.) (1934). **a - 437**
Nécrologue du Président de la Deutsche Seewarte décédé le 15 Septembre 1933.

**An.** - S. A. R. Luigi di Savoia, Duca degli Abruzzi. 4 fig., f. t., Riv. Cult. Mar., IX an., 3/4, 185-197. Roma (1934). **a - 438**
Nel primo anniversario della morte del Duca degli Abruzzi l'Ufficio Storico della R. Marina ha pubblicato un volume che tratta dell'attività marinara del Principe. Qui son riprodotte alcune pagine.

# II.

# OCEANOGRAPHIA PHYSICA.

## GENERALIA.

### Instituta oceanographica - Relationes publicae - Conventus et conferentiae - Oceanographiae historia - Ars docendi - Bibliographiae.

**Cassinis Gino** - V$^a$ Assemblea generale dell'Unione Internazionale geodetica e geofisica (Lisbona, settembre 1933). Relazione sui lavori dell'Assemblea [*V.us Conventus generalis Unionis Internationalis Geodeticæ et Geophysicæ (Olisippone mense Septembri 1933). Relatio de operibus*]. Ric. Scient., II, 12, 517-530. Roma (1933). **a - 439**

Premesse brevi notizie sulla cerimonia inaugurale e su questioni generali, l'A. dà un cenno sui lavori compilati dalle diverse Associazioni partecipanti al Congresso, e cioè: Associazione di Geodesia; Associazione di Sismologia; Associazione di Magnetismo e di Elettricità terrestri; Associazione di Vulcanologia; Associazione di Oceanografia fisica; Associazione di Idrologia scientifica; mettendo in rilievo il contributo dato dall'Italia.

**Chevey P.** - Rapport sur le fonctionnement de l'Institut Océanographique de l'Indochine pendant l'année 1931-1932 [*Relatio de activitate ac functione Instituti Oceanographici Indosinensis a. 1931-32*]. 2 graph. h. t., Inst. Océan. Indoch., Stat. Marit. Cauda, 21-e Note, 3-20. Saïgon (1932). **a - 440**

Constitution de la Commission de l'Institut Océanographique de l'Indochine. Personnel de l'Institut. Matériel. Recherches scientifiques et techniques (sept campagnes océanographiques et de pêche du « de Lannesan »). Océanographie physique et biologique (sondages thermométriques, coupes hydrologiques rectilignes, étude de la croissance des poissons du Grand Lac du Cambodge, présence de formes marines dans ce lac, étude des formes larvaires de divers poissons, recherches planktoniques, etc.). Pratique de la pêche. Traitement industriel des produits de la pêche. Rapports avec divers organismes scientifiques. Publications. État de la bibliothèque.

**Chevey P.** - Rapport sur le fonctionnement de l'Institut Océanographique de l'Indochine pendant l'année 1932-1933 [*Relatio de activitate ac functione Instituti Oceanographici Indosinensis a. 1932-1933*]. 4 pl., Inst. Océan. Indoch., Stat. Marit. Cauda, 22-e Note, 3-18. Saïgon (1934). **a - 441**

Personnel de l'Institut. Matériel. Recherches scientifiques et techniques. Océanographie physique et biologique (Coupes hydrologiques faites par le « de Lanessan » parallèles aux côtes de Cochinchine et du Sud-Annam. Rectifications opérées en 1933 sur la Carte Bathymétrique de 1930, Exploration de la vallée sous-marine du Donnai, mensurations de température - visites de toutes les îles de la région). Pratique de la pêche. Traitement industriel des produits de la pêche. Rapports avec divers organismes scientifiques. Publications.

**Cordier Henry** - Bibliotheca Indosinica. XVIII bis. G. Van Oest. Paris (1932). **a - 442**

Dictionnaire bibliographique des ouvrages relatifs à l'Indochine. Index par Mme. M. A. Roland Cabaton. Publications de l'Ecole française d'Extrême Orient.

**Debenham F.** - The Scott Polar Research Institute, Cambridge, England, Its History and Aims [*Institutum cui* Scott *est nomen investigationibus polaribus peragendis, Cantabrigiæ. Historia et rationes*]. (In Engl., Russ. summ.). Arctica, 1, 67-74. Leningrad (1933). **a - 443**

In this brief article the author explains what the Scott Polar Institute is, and what it attempts to do, in order to allow countries other than England to have a chance of learning something about its history and undertakings.

**De Buen Fernando** - Las publicaciones del Instituto Español de Oceanografia [*Institutum Hispanicum pro Oceanographia eiusque publicationes*]. Bol. Oceanogr. y Pesca, XVII, 1, 2-37. Madrid (1932). **a - 444**

Lista de publicaciones por orden de autores: (Memorias; Resultados de campañas, Trabajos, Notas y Resúmenes, y Boletin de Pesca o de Oceanografia y Pesca). Lista de cambios.

**De Buen Rafael** - Liste chronologique des croisières océanographiques [*Index chronologicus navigationum oceanographicarum*]. 73 pp., Manuel pour les observations océanographiques à la mer., I, 2, Offic. Grafiche Carlo Ferrari. Venezia (1934). **a - 445**

C'est la liste la plus complète publiée jusqu'à maintenant des croisières accomplies par les différents pays du monde entier. L'A. donne le nom du navire et le but de la navigation.

**De Buen Rafael** - El Instituto Español de Oceanografia y la labor que ha realizado [*Institutum Hispanicum pro Oceanographia. Opera peracta*]. Lam., Mem. Cons. Oceanogr. Ib. Amer., 9, 72. Madrid (1932).

(—) Véase: Notas y Resúm., Serie II, 62, 1-41. Madrid (1932). **a - 446**

La organisación del Instituto. Los Laboratorios Corteros. La Cooperación de la Marina de Guerra. Estudios del mar y sus aplicaciones a los problemas prácticos. Reglamento. Campañas. Bibliografia.

**Eggvin Jens** - A Norwegian Fat-herring Fjord. An Oceanographical Study of the Eidsfjord [*Agitur de fiordo quodam Norvego pinguibus aringis prædito. Studium oceanographicum ab* Eidsfjord *peractum*]. 11 figs., many tabl., Fiskerid. Skr. Ser. Hav-

unders., (Rep. Norw. Fish. Mar.), IV, 6, 3-22. Bergen (1933). **a - 447**

Results of the research work carried on during an oceanographical cruise between October 15th and November 9th 1932. Topography. Currents. Temperature and salinity. The oxygen contents. The phosphate contents. Explanation of tables. Literature.

**Esih Ivan** - More u Poljskoj Kujizevosti [*De mari apud litteras Polonas*] (En yougoslave). ill., 22 pp., Hrvatska Stamparija Gradske Stedionice. Split (1931). **a - 448**

Recueil de nouvelles littéraires et bibliographiques, sur publications polonaises presentées en forme artistique.

**Field R. M. Chairman** - Report of Committee on Geophysical and Geological Study of Oceanic Basins [*Relatio Comitati pro geophysica et geologia bacinorum oceanicorum*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 9-16, 1933. Washington, D. C. (1933). **a - 449**

Appointing of the Committee in April 1932 for the purpose of promoting the study of structural and stratigraphic problems relating to oceanic basins, continental margins, and oceanic islands, especially those forming island-arcs. Account of what the Committee has been able to accomplish during the first year of its work as to the following: I) the promotion of structural studies in oceanic basins; II) the study of available geophysical methods for work at sea; III) suggestions as to outstanding or fundamental problems, which, because of available machinery and technique, are reasonably certain of solution; IV) cooperation of existing agencies.

**Goegg Egmond** - Coup d'oeil sur la Société de Géographie de Genève [*Compendium rerum ad Societatem Geographicam Genavensem pertinentium*]. 5 phot., 69 pp., Soc. Gén. Impr. Genève (1933). **a - 450**

Ce fascicule a été rédigé à l'occasion du 75-ème anniversaire de la fondation de la Société et contient un compte rendu de l'activité scientifique, de l'organisation et du fonctionnement de la Société au cours de 25 années.

**Granqvist Gunnar** - Havsforskningsinstitutets verksamhet under år 1932 [*Opus peractum ab Instituto Oceanographico. a. 1932*]. Havsforskningsinst. Skr., 91, 1-14. Helsinki (1933). **a - 451**

Rapport du Directeur: Personnel et administration. Expéditions. Observations sur le niveau de l'eau. Observations thalassologiques dans les stations fixes. Conditions des glaces pendant l'hiver 1931-32. Travaux chimiques. Publications. Données statistiques. Instruments, meubles, bibliothèque.

**Grigoriev A. A.** - Le premier Congrès Géographique de l'U. S. S. R. [*Congressus prior Geographicus a Republica Sovietica habitus*]. Izv. Gos. Geogr., Obstsch. (Bull. Soc. Géogr. de l'Etat), LXV, 6, 475-495. Moskva (1933). **a - 452**

Compte rendu du Congrès qui a été convoqué du 11 au 18 Avril 1933 à Léningrad. Développement de la géographie soviétique. Inauguration et organisation du Congrès. Titres des rapports et résolutions adoptées concernant la géographie physique, la cartographie et la géographie mathématique, la géomorphologie et les disciplines connexes, l'hydrologie et la climatologie, la géographie biologique, la géographie économique, l'ethnographie, les problèmes de l'Arctique, l'enseignement de la géographie et l'organisation et fondation des instituts et des collections géographiques.

**Helland-Hansen Bjørn** - Det Geofysiske Institutt [*Institutum Geophysicum*]. Bergens Mus. Årsber. 1932-1933, 61-68. Bergen (1933). **a - 453**

Rapport concernant les savants qui ont entrepris des recherches auprès de l'Institut, publications. A. Section d'Hydrographie: Recherches entreprises dans plusieurs fiords, entre lesquelles sont à noter surtout celles par J. E. Fjeldstad sur les ondes internes et la conduction de chaleur dans la mer, analyse harmonique sur les marées. B. Section de météorologie technique: Nouvelle publication « Physikalische Hydrodynamik mit Anwendungen auf die dynamische Meteorologie ». La participation du Directeur, Prof. J. Bjerknes, au congrès de Chicago. Recherches aérologiques, ballons-sonde; publications. Section C. Magnétisme terrestre et physique cosmique. Conférences et cours, publications, mesurages magnétiques dans la Norvège méridionale et dans l'îsle de Mayen, instruments et équipement. La commission géophysique: Membres. La Société géophysique norvégienne: réunion annuelle.

**Huber A.** - Bericht über die 18. allgemeine Versammlung der Deutschen Meteorologischen Gesellschaft zu Hamburg vom 2-5. Oktober 1933. Feier des 50- jährigen Bestehens der Gesellschaft [*Relatio de conventu Societatis meteorologicæ Germanicæ Hamburgi habito a die 2 ad 5 octobris 1933, quinquagesimo recurrente jubilaeo*]. Meteorol. Ztschr. L, 12, 441-447. Braunschweig (1933). **a - 454**

Anwesende Mitglieder. Reden. Rechenschaftsbericht. Zahl der Mitglieder. Wahl der Ehrenmitglieder. Beschlüsse. Stiftung des Wigandpreises. Fachsitzungen und Vorträge, welche in diesem Heft in Auszügen mitgeteilt sind.

**Le Danois Ed.** - Rapport Administratif du Comité du Plateau Continental Atlantique [*Relatio ad administrationem pertinens Comitati pro Platea Continentali Atlantica*]. 1 tabl., Rapp. Pr.-Verb. Cons. Inst. Expl. Mer, LXXXIV, 5. Copenhague (1933). **a - 455**

Résumé des travaux accomplis par le Comité.

**Le Danois Ed.** - Rapport administratif sur le fonctionnement du Comité du Plateau Continental Atlantique [*Relatio ad administrationem pertinens de functione et activitate Comitati pro Platea Continentali Atlantica*]. Rapp. Pr.-Verb. Cons. Int. Expl. Mer, LXXXVII, 5. Copenhague (1934). **a - 456**

Compte rendu de l'activité du Comité en 1932; croisières effectuées; réunion tenue à Madrid et à Cadiz.

**Lewis H. Mabel** - The Physical and Chemical Oceanography of the Irish Sea. A Bibliography [*De oceanographia physica et chemica Maris Hiberni. Bibliographia*]. Journ. Cons. Int. Expl. Mer, IX, 1, 87-92. Copenhague (1934). **a - 457**

**Lugeon Jean** - L'institut National Météorologique de Pologne. Organisation du Bureau Central météorologique, Observatoire aérologique, Observatoire maritime, Station magnétique [*Institutum Nationale Meteorologicum Polonum. Observatorium aërologicum, observatorium maritimum, statio magnetica*]. 1 vol., 222 pp. Varsovie (1932). **a - 458**

L'A., directeur de l'Institut National météorologique de Pologne, réunit dans le présent volume, après un bref aperçu historique de l'Institut, une documentation très intéressante sur son organisation, son fonctionnement, ses travaux et sur les buts qu'il poursuit. En dehors des informations sur les institutions mentionnées dans le titre, l'ouvrage contient aussi des données sur l'organisation et le fonctionnement de la Station Centrale de Météorologie militaire et de l'Observatoire magnétique de Hell.

**Magrini G., Picotti M. & Revelli P. (Consiglio Nazionale delle Ricerche)** - Partecipazione italiana alla Mostra oceanografica Internazionale di Siviglia (1929) [*Expositio oceanographica internationalis Hispaliensis a. 1929. Participatio Italica*]. 216 pp., 21 tav. f. t., Tip. S. I. A. G. Stabi-

limenti Italiani Arti Grafiche. A cura di Paolo Revelli, Genova (1934). **a - 459**

Per il maggior sviluppo dell'oceanografia occorre rendere i diversi dati. raccolti nelle esplorazioni scientifiche compiute dai diversi paesi, paragonabili fra loro. Sorse da ciò l'iniziativa di riunire, in un'apposita Esposizione internazionale, gli strumenti per le ricerche oceanografiche e idrologiche usati nei diversi paesi per permettere ad una Commissione di esperti di conoscere e esaminarli insieme con i metodi di impiego e suggerire ai ricercatori quali di essi strumenti e metodi è opportuno preferire e quali avvertenze devonsi avere per rendere i dati raccolti confrontabili fra loro e utilizzabili in una sintesi generale. E questo fu lo scopo principale della Esposizione di Siviglia. La materia del volume è trattata nei seguenti capitoli: La partecipazione italiana alla Mostra Oceanografica Internazionale di Siviglia. La preparazione della Mostra Italiana ordinata dal C. N. R. in occasione del Congresso Internazionale oceanografico, idrografico ed idrologico di Siviglia. Catalogo della Mostra Italiana c. s. Elenco degli Istituti e degli Enti che in Genova, patria di Cristoforo Colombo, attendono a ricerche di idrografia marina e di oceanografia, o concorrono in vari modi e in varie forme, a promuovere studi sull'importanza del mare nella storia e nella vita d'Italia. Il laboratorio di biologia marina a S. Giuliano (Genova). Il Civico Museo Navale di Genova. Distribuzione geografica degli Enti e degli Istituti che hanno inviato strumenti, grafici, disegni e pubblicazioni alla Mostra, o ne hanno agevolato in varii modi l'ordinamento.

**Marmer H. A.** - Oceanography, the Science of the Sea [*De oceanographia*] (In Engl. and French) Scientia, a. XXVIII, vol. LVI, 267, 1-8, Suppl. 1-8. Bologna (1934).

(—) See also: Lancashire Sea Fishery Laboratory. James Johnstone Mem. Vol. Univ. Press. of Liverpool (1934). **a - 460**

History of the oceanography. Maury. « Challenger » expedition. The problems of this science. The help to other sciences.

**Migliorini Elio** - Bibliografia geografica della Regione Italiana [*Bibliographia geographica Italiæ*]. Boll. R. Geogr. It., 12, 803-936. Roma (1933). **a - 461**

Vengono elencate 1150 pubblicazioni italiane o straniere apparse sotto forma di volume o di articolo di rivista nel 1931 (ed eventualmente negli anni precedenti qualora non fossero state ancora segnalate), le quali trattano argomenti geografici oppure contengono dei materiali che possono essere utilmente consultati dal geografo. È dato anche un cenno del contenuto ed aggiunto un indice dei nomi che facilita la consultazione. La rassegna mantiene lo schema generale dei 7 fascicoli già pubblicati negli anni precedenti, i primi tre (1925-1927) sotto gli auspici del Comitato Nazionale per la Geografia del Consiglio delle Ricerche, i quattro seguenti (1928-1931) nel Bollettino della R. Società Geografica (serie VI, Volumi VI-IX, fascicoli di dicembre).

**Murray Luck J.** - The Seventeenth Annual Meeting of the Pacific Division. (American Assoc. Advanc. Science) [*De XVII° conventu annuo Sectionis pro Oceano Pacifico*]. Science, LXXVIII, 2024, 322-323. New York (1933). **a - 462**

**Pedrick N. O.** - Freight Conferences and the Merchant Marine [*Conferentiæ de conductionibus et locationibus maritimis deque marina mercatoria*]. U. S. Govmt. Print. Off., 6th Nat. Conf. Merch. Mar., Jan. 4-5, 1933, 60-66. Washington D. C. (1933). **a - 463**

Rôle of the freight conferences in the regulation of the trade. Their strong and weak points.

**Perrier Georges** - Bibliographie [*Bibliographia*]. Bull. Géod., 37, 101-114. Toulouse-Paris (1933). **a - 464**

Projet d'une bibliographie géodésique internationale. Etat actuel des travaux. Mise au point du premier volume. Propositions et règles générales adoptées. Collaborateurs de la bibliographie.

**Platania Giovanni** - Gli isogrammi. Proposta di revisione della terminologia [*De isogrammatis eorumque nomenclatura recognoscenda*]. Ann. del R. Ist. Sup. Navale, II, 2, 235-241. Napoli (1933). **a - 465**

Nella rappresentazione delle carte topografiche o meteorologiche, in generale nelle rappresentazioni cartografiche scientifiche, si adoperano non poche parole composte col prefisso *iso*. L'autore riprende in esame questi termini, adoperati in geofisica, sia perchè alcuni di essi non sono ben noti se non a speciali studiosi, sia perchè ritiene si debba fare una revisione di alcune di queste voci.

**Proudman J. & Doodson A. T.** - Liverpool Observatory and Tidal Institute [*Observatorium et Institutum pro maris aestibus ad* Liverpool *pertinentia. Relatio annua 1933*]. 1 phot., tabl., 16 pp. Liverpool (1934). **a - 466**

Governing Committee and scientific staff of the Observatory and the Institute. List of publications issued. Research conducted by the laboratory and the Institute. Machines and instruments. Tidal analysis and predictions. Meteorological summary for 1933.

**Richmond H. W.** - Naval Training [*Præcepta nautica*]. Oxford University Press. London (1933). **a - 467**

The A. was director of the Naval College of Greenwich. The book concerns principally the training of war naval officers.

**Schäfer Brenhilda** - Uniformity in Bibliography Particulars [*De præcipuitatibus bibliographicis unificandis*]. Nature, CXXXIII, 3358, 380-381. London (1934). **a - 468**

On the convenience of indexing the particulars of separates in an order which ought to be universally respected.

**Soler E. & Boaga G.** - Bibliographia Geodetica Italiana (1921-1930) [*Bibliographia Geodetica Italica (1921-1930)*]. Pubblicazioni della R. Commissione Geodetica It., nuova serie, n. 8, 71. Padova (1933). **a - 469**

La presente Bibliografia Geodetica Italiana, che riguarda il periodo 1921-1930, è una continuazione di quella pubblicata nel 1921 per iniziativa della R. Commissione Geodetica Italiana, ed è stata compilata per incarico della commissione stessa. Ogni pubblicazione porta tutti i dati bibliografici che possono servire a ritrovarla facilmente, ed è seguita da un sunto il più possibilmente esteso per dare un'idea chiara del contenuto.

**Toth G.** - Die Teilnahme Ungarns am Zweiten Internationalen Polarjahr [*II.us Annus Polaris Intern. Participatio Hungara*]. Az Idöjaras, 9, 150-155, 10, 181-182. Budapest (1933). **a - 470**

**Wedemeyer A. & Peter Chr.** - Der Rechenstab im Unterricht der Seefahrtschulen [*Regulus logaritmicus eiusque utilitas in scholis nauticis*]. Ann. d. Hydrogr., LXII, 2, 83. Berlin (1934). **a - 471**

Herr A. Wedemeyer behauptet, der Rechenstab und die Rechenmaschine seien für die Seefahrt ungeeignet, hauptsächlich weil sie weder dem Benutzer noch einer anderen Person die Möglichkeit der Prüfung der Rechnung gestatten. Dr. Chr. Peter bemerkt zu den vorstehenden Ausführungen, dass, seiner Ansicht nach, ohne die Meinung Herrn A. Wedemeyer zu bestreiten, der Rechenstab in der Navigation als Ergänzungs- und Kontrollmittel dienen sollte.

**Académie de Marine** - Communications et mémoires de l'... [*Communicationes et Memoriæ Academiæ*]. Soc. Ed. Géogr. Paris (1922-1934). **a - 472**

**American Geophysical Union** - Resolutions Adopted by the 14th Annual Meeting [*Sententiæ sumptæ a. XIV° Consessu annuo*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 6-8. Washington, D. C. (1933). **a - 473**

Speeches concerning the deaths of R. Lee Faris, J. R. Freeman, H. W. Fisk., L. W. Austin. Resolutions on the International Polar Year, on cosmic rays. Proposal of an International Commission on the Hydrology of Snow and Ice. Resolution on appropriation for scientific investigations by the Federal Government. Resolution on Naval Observatory Time-Signals.

**Association of Field Engineers** - Bulletin of the Association of Field Engineers, U. S. Coast & Geodetic Survey, n° 6 [*Bulletinus Societatis Ingeniariorum ad* «U. S. Coast and Geodetic Survey» *pertinentis. N° 6*]. Washington, D. C. (1932). **a - 474**

The following articles contained in the Bulletin are of interest for oceanographers : Completion of the Georges Bank Project. Co-ordination of Coastal Triangulation and Emergency Relief. Interesting Submarine Configuration off the Californian Coast. Hints for Securing Accurate Tidal Data. Hydrography of the Fifth Century, B. C. Status of the Federal Control Surveys. Treatment of Rocks on Hydrographic Surveys. Notes on the Usefulness of Miscellaneous Surveys and Maps, and their Application to Charts. Georges Bank-Plotting and Adjustment of the 1932 R. A. R. Buoy Control Scheme, Velocity of Sound Tests, Forms found useful. Canyons South of Georges Bank. Rapid Methods of Determining Approximate Spherical Excess. Second International Year Program. Notes for the Improvement of Lists of Geographical Positions and for Submitting Progress Sketches. Bubble Sextants and Gyro-Horizon. Fathometer Operation in Moderately Shoal Water. The Graphic Recorder (Fathometer). Tide and Current Survey of New York Harbour. Units for Recording, Reducing and Plotting Soundings. A Rapid Method for Swinging Ship. Notes on Recovering and Remarking Stations.

**Bureau Hydrographique International - International Hydrographic Bureau** - Year-Book - Annuaire [*Annuarium*] (En angl. & franç.) nombr. tabl., 1-83. pp. Monaco (Princip.). (1934). **a - 475**

Index des Etats cités dans l'Annuaire, Etats Membres du Bureau, Comité de Direction, Personnel et bâtiments hydrographes des Etats, membres du Bureau.

**Colombo Observatory** - Report on the Colombo Observatory with Maps and Statistics for 1932 [*Relatio de observatorio* Colombo, *cum chartis tabulisque statisticis a. 1932*]. 8 maps., 33 + y 19. Ceylon Govmt. Press. Colombo (1933). **a - 476**

Administration. Time work. Meteorological equipment and work. Publications. Seismograph. Tables.

**Commission pour l'Etude des Raz de Marée** - Actes de la Commission [*Acta Commissionis*]. Union Géod. & Géoph. Int., Ann. Comm. Etude Raz de Marée, 1, 1-26. Paris (1931). **a - 477**

Listes des Membres. Procès-verbal de la Première Séance. Questionnaires. Renseignements complémentaires adressés aux membres en novembre 1930. Activité de la Commission 1930-31.

**Commission pour l'Etude des Raz de Marée** - Actes de la Commission [*Acta Commissionis*]. Union Géod. & Géoph. Intern., Ann. Comm. Etude Raz de Marée, 2, 1-14. Paris (1932). **a - 478**

I. Liste, par Etats, des Membres de la Commission ; II. Liste, par ordre alphabétique, des Membres de la Commission ; III. Extrait de la comptabilité de la Commission (août 1930-31 décembre 1931) ; IV. Activité de la Commission de juin 1931 à juin 1932 : Représentation des Etats à la Commission. Subventions. Publication des travaux de la Commission. Questionnaires. Activité des Comités locaux. Publications reçues. Propositions diverses. Sujets à examiner au Congrès de Lisbonne, en 1933.

**Commission pour l'Etude des Raz de Marée** - Actes de la Commission [*Acta Commissionis*]. Un. Géodés. & Géoph. Int., Ann. Comm. Étude Raz de Marée, 3, 1-18. Paris (1933). **a - 479**

I. Liste, par Etats, des Membres de la Commission ; II. Liste, par ordre alphabétique, des Membres de la Commission ; III. Extrait de la comptabilité de la Commission (31 Déc. 1931-31 Déc. 1932) ; IV. Activité de la Commission de juin 1932 à juin 1933. V. Séances de la Commission à l'occasion du Congrès International de l'Union, à Lisbonne. Annexe : Rapport du Secrétaire sur le fonctionnement et l'activité de la Commission depuis le Congrès International de Stockholm en 1931.

**Hydrographic Office of the United State of America** - Annual Report for the Fiscal Year 1932 - Rapport annuel pour l'année 1932 [*Relatio annua pro anno fiscali 1932*] (En angl. & franç]. Bull. Hydrogr. Int., 2, 30-32. Monaco (1933). **a - 480**

Résumé du rapport sur les attributions et l'organisation de l'Hydrographic Office de la Marine des Etats-Unis, ainsi que sur les travaux exécutés par ses différentes sections, avec référence particulière à la division de l'Administration, les levés, la division de la sécurité maritime, la division de la construction des cartes, la division de la navigation aérienne, la division de la distribution des cartes et des ouvrages nautiques et aéronautiques. Participation de l'Office aux expéditions scientifiques et à la troisième Conférence Hydrographique Internationale.

**Kaiser Wilhelm-Gesellschaft zur Förderung der Wissenschaften** - Tätigkeitsbericht der Kaiser Wilhelm-Gesellschaft zur Förderung der Wissenschaften (April 1933 bis Ende März 1934) [*Relatio de operibus peractis a Societate* «Kaiser *etc.*» *a mense Aprili 1933 usque ad Martium exeuntem 1934*]. Naturwiss. XXII, 22/24. 339-375. Berlin (1934). **a - 481**

Berichte aus den einzelnen Instituten, von welchen die folgenden zu bemerken sind : Kaiser Wilhelm-Institut für Strömungsforschung, verbunden mit der Aerodynamischen Versuchsanstalt, Göttingen ; Meteorologisches Institut der Kaiser Wilhelm-Gesellschaft, verbunden mit dem Staatlichen Observatorium, Danzig ; Deutsch-Italienisches Institut für Meeresbiologie zu Rovigno d'Istria. Leitung und wissenschaftlich Arbeitende, Veröffentlichungen (fertige und im Druck oder in Vorbereitung sich befindliche), wissenschaftliche Reisen, fortlaufende Untersuchungen und für das Biologische Institut auch Seetierversand.

**Marine Department** - Annual Report of the Marine Department of the Chinese Marine Customs, 1931 [*Relatio annua Dipartimenti maritimi ad vectigalia Sinensia pertinentis a. 1931*]. (En angl. & franc.). Bull. Hydrogr., Int., 2, 32-33. Monaco (1933). **a - 482**

Résumé du rapport qui énumère en détail les différentes opérations hydrographiques effectuées par les Douanes Maritimes chinoises dans les différents districts maritimes au cours de l'année 1931 et donne les détails de nouveaux travaux de construction et d'entretien effectués dans les différents ports et rivières. Il contient en outre, de nombreuses statistiques.

**Ministero dell'Educazione Nazionale** - Approvazione dello statuto del Regio Istituto Superiore Navale di Napoli [*Comprobatio statuti R. Instituti Superioris Navalis Neapolitani*] (Regio decreto 16 gennaio 1933, n. 1570). Gazz. Uff. Regno d'Italia, 280, 5478-5492. Roma (1933). **a - 483**

**National Research Council** - Physics of the Earth. V. Oceanography [*Physica terrestris. V. Oceanographia*]. num. figs., diagrs. tabls., bibliogrs. Bull. Nat. Res. Counc., 85. v + 581 pp. Washington, D. C. (1932). **a - 484**

Contents :
Heck N. H. : The Domain of Oceanography.
Littlehales G. W. : Configuration of the Oceanic Basins.
Collett Leon W. : Deep-Sea Deposits.
Thompson Thomas G. and Robinsons Rex J. : Chemistry of the Sea.
Patton R. S. and Marmer H. A. : The Waves of the Sea.
Marmer H. A. : Tides and Tidal Currents.
McEwen George F. : A Summary of Basic Principles Underlying Modern Methods of Dynamical Oceanography.
Schumacher Arnold : A Survey of Present Knowledge of Oceanic Circulation Based Upon Modern Physical and Chemical Observations.
Smith Edward H. : Ice in the Sea.
Soule Floyd M. : Oceanographic Instruments and Methods.
Parker W. E. : Additional Oceanographic Instruments.
Iselin C O. : Deep Sea Bottom Samplers.
Brooks Charles F. : Oceanography and Meteorology.
Huntsman A. G. : Relation of Biology to Oceanography.
Schuchert Charles : The Periodicity of Oceanic Spreading, Mountainmaking, and Paleography.

**Société de Géographie** - Actes de la Société-Procès-Verbaux des séances. Séance du vendredi 13 avril 1934 [*Acta Societatis. Acta scripta consessuum. Consessus habitus die XIII° mensis Aprilis 1934*]. 5 cartes, Géogr., Terre, Air, Mer, LXII, 1/2, 68-77. Paris (1934). **a - 485**

Résumé de la Conférence faite par M. l'amiral Loizeau sur le « IV-ème centenaire du Canada », qui illustre l'histoire de la découverte de ce Pays sur la base tout particulièrement des ouvrages de M. Biggar, chef-archiviste du Gouvernement canadien en Europe : « Les précurseurs de Jacques Cartier ; les voyages de Jacques Cartier ; Collection des documents relatifs à Jacques Cartier et au sieur de Roberval ». Le rôle de la France dans l'histoire du Canada. Sur la base de trois cartes l'A. fait la comparaison des routes transocéaniques, décrit les routes à la voile de Colomb et d'Alain Gerbault, du Zeppelin et fait des recherches du vent favorable pour la traversée, ainsi que des itinéraires des deux premiers voyages d'exploration faits au Canada en 1534 et 1535-36 respectivement.

**Society for Nautical Research** - Annual Report for the Year 1933, Rules, etc. [*Relatio annua pro a. 1933. Regulamenta etc.*]. xxiv pls. 135 pp., R. Nav. Coll., Greenwich (1934). **a - 486**

Officers of the Society and Standing Committees. Report of the Council for 1933. The Maritime Miscellany. Accounts for 1933. National Maritime Museum : Acquisitions since the last Report. Members of the Society Rules of the Society. A short history of the Society, 1910-33. Form of application for membership. Banker's Order Form.

**Union Géodésique et Géophysique Internationale** - Procès-verbaux - Section de Météorologie. Quatrième Assemblée Générale. Stockholm. Août 1930 [*Acta scripta. Sectio Meteorologica. IV.us Consessus generalis Holmiæ, mense Augusto 1930*]. fig., tabl., graph., diagr., 170 pp., Imprimerie Paul Dupont. Paris (1933). **a - 487**

Matières :
Shaw Napier, The Geopotential Committee.
Bjerknes V., Geopotential.
Humphreys J. W., Geopotential and Geodynamic meters.
Simpson G. C., Dynamische Meter.
Eredia F., Examen des données météorologiques qui sont indispensables pour indiquer synthétiquement les caractères climatologiques d'une localité déterminée.
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Shaw Napier, Note on the relation between the Meteorological Section of the International Union for Geodesy and Geophysics and the International Meteorological Organisation.
Shaw Napier, Entropy as a meteorological element.
Kimball Herbert H., Commission de Radiation solaire.
Dobson G. M. B., Research on atmospheric ozone.
Kimball H. H., Instructions for obtaining solar radiation intensity measurements.
Ångström Anders, On the atmospheric transmission of sun radiation.
Volochine F., Les travaux du Laboratoire actinométrique international de Trappes.
Volochine F., Le Bulletin actinométrique international de l'Observatoire de Trappes.
Gorczynski Ladislas, Quelques résultats des mesures actinométriques en mer effectuées dans les Océans Atlantique et Indien de 1923 à 1928.
Kalitine N. N., Contribution à l'étude de l'intensité de la radiation de la voûte céleste au voisinage du Soleil.
Brazier C. E., Rapport sur les Travaux actinométriques à l'Observatoire du Parc Saint-Maur de 1927 à 1930.
Lindholm F., Densité de diffusion optique caractérisant l'atmosphère comme milieu trouble.
Boerema J. Ultraviolet solar radiation on Java.
Fontséré E., Sur les pluies de boue et de poussière.
Clayton H. H., Solar cycles and weather cycles. Atmospheric changes and solar changes.
Lugeon J., Le sondage par les parasites atmosphériques.
An., Influence of polar ice on climats, combined meeting of the Sections for Oceanography and Meteorology, on Monday 18th August 1930 at 9h 30.
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Giâo A., Une nouvelle méthode de prévision quantitative du temps.
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Eredia F., Une station météo-aérologique au cap Guardafui.
Hubert H., Sur l'extension de l'Harmattan.
Hubert H., Sur l'allure des surfaces de discontinuité dans les cas de fronts froids en A. O. F.
Welter L., La pluie à Dakar et l'activité solaire.

**Union Géodésique et Géophysique Internationale. Association de Géodésie** - Cinquième Assemblée Générale à Lisbonne du 14 au 25 septembre 1933 [*V.us Congressus generalis Olisippone a die 14 ad 25 mensis Septembris 1933*]. Bull. Géod., 37, 1. Toulouse-Paris (1933). **a - 488**

Programme-Travaux.

**Union Géodésique et Géophysique Internationale** - Procès-Verbaux des Séances de l'Association de Météorologie (5.me Assemblée Générale, Lisbonne-Sept. 1933). I. Actes de l'Association [*Acta scripta Consessuum Societatis Meteorologicæ. (V.us Congressus Generalis Olisippone, mense Septembri 1933. Acta Societatis*]. 62 pp., Paul Dupont. Paris (1934). **a - 489**

**Union Géographique Internationale** - Séance du Comité National d'Egypte du 26 Avril 1934 [*Consessus Comitati Nationalis Aegyptiani die 26*

*Mensis Aprilis 1934*]. Bull. Soc. R. de Géogr. d'Egypte, XVIII, 3/4, 396-401. Le Caire (1934). **a - 490**

Nouvelles sur la carte internationale du monde au millionième. Rapport sur les travaux de la Commission des Terrasses Pliocènes et Pleistocènes. Rapport sur les travaux de la Commission pour l'étude des variations climatiques. Rapport sur les travaux de la Commission pour la préparation de la carte de l'Empire romain. Publication de reproductions photographiques des cartes anciennes. Conclusion adressée à Sa Majesté le Roi.

**U. S. Naval Observatory** - Annual Report of the Naval Observatory for the Fiscal Year 1932 [*Relatio annua observatorii nautici a. 1932*]. 21 pp., U. S. Govmt., Print. Off., Washington D. C. (1932). **a - 491**

**United States Shipping Board** - Proceedings of the Sixth National Conference on the Merchant Marine, January 4 and 5, 1933 [*Acta VI.ae Conferentiæ Nationalis Marinæ mercatoriae a die 4 ad 5 mensis Januarii 1933*]. U. S. Govmt. Print. Off., v-vii, 1-142. Washington, D. C. (1933). **a - 492**

Members of the United States Shipping Board. National Committee of the Merchant Marine. Call of the Conference. Official Agenda. Account of the work and text of papers presented during the sessions of the Conference.

**Woods Hole Oceanographic Institution** - Report for the Year 1930-1932 [*Relatio pro a. 1930-32*]. 5 figs., 3-51 pp. Woods Hole, Mass. (1933). **a - 493**

I. Trustees, as of December 31, 1932 ; II. Act of Incorporation ; III. By-Laws ; IV. Report of the Treasurer ; V. Reports of the Director ; VI. Staff, as of December 31, 1932 ; VII. Members of the Corporation, as of December 31, 1932. Appendix A : Reports of progress by investigators working at the Institution during 1931. Appendix B : Reports of progress by investigators working at the Institution during 1932.

**Woods Hole Oceanographic Institution** - Annual Announcement, Fourth Year 1934-1935 [*Publicatio annua. a. IV.us 1934-35*]. 1-12 pp., Woods Hole, Mass. (1933). **a - 494**

The contents of the present announcement is as follows : Trustees. Officers. General information. Buildings. Salt water supply, Library, Equipment, Staff, Fellowships, Providing for visiting investigators, Instruction (omitted 1934), Facilities for publication, Program of oceanographic investigation of the Woods Hole Oceanographic Institution.

**Woods Hole Oceanographic Institution** (d'après notices publiées par cette Institution) - L'institution Océanographique de Woods Hole [*De instituto oceanographico in* Woods Hole]. Rev. Hydrogr., XI, 1, 113-114. Monaco (Princ.) (1934). **a - 495**

Fondation et but de l'institution ; sa situation et les avantages qui en dérivent, en ce qui concerne les études océanographiques ; bâtiments de l'institution ; son équipement ; le programme des croisières trimestrielles du navire explorateur « Atlantis ».

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**An.** - Die Deutsche Seewarte und ihre Zukunft [*De observatorio maritimo Germanico eiusque progressibus in futurum tempus*]. 1 Phot., Ann. d. Hydrogr., LXII, 9, 357-364. Berlin (1934). **a - 496**

Die Einführung des Präsidenten Dr. F. A. Spiess, was im engsten Zusammenhange mit der Neuorganisation des Reichswetterdienstes steht. Vollständige Wiedergabe der gehaltenen Ansprachen (des Staatssekretärs Milch, des Vizeadmirals Heusinger von Waldegg und des Präsidenten der Deutschen Seewarte Dr. Spiess), welche für die Zukunft der Anstalt von grundlegender Bedeutung sind.

**An.** - Bibliografia Geologica d'Italia per l'anno 1932 [*Bibliographia Geologica Italica a. 1932*]. Boll. R. Uff. Geol. d'It., LIX, 1/2, 1-21. Roma (1934). **a - 497**

**An.** - The Work of the Observatory in Calm Bay (Franz-Joseph Land) in 1932-33 [*De operibus peractis in observatorio in* Calm Bay *a. 1932-33*] (In Russ. & Engl.). Bull. Arct. Inst., 11, 327-330, 395-399. Leningrad (1933). **a - 498**

Account of the following observations carried out during the Second International Polar Year by the observatory in Calm Bay : meteorology, aerology, actinometrical work, terrestrial magnetism, aurora borealis, radio-activity, radio-waves, atmospheric electricity, biology.

**An.** - Session of the Scientific Council of the Arctic Institute [*Agitur de Sectione Consilii Scientifici ad Institutum Arcticum pertinentis*] (In Russ. & Engl.). Bull. Arct. Inst., 1, 1/2, 31-32. Leningrad (1934). **a - 499**

Account of the usual semi-annual session of the Scientific Council held from December 22nd to December 24th, 1933. List of the Sections represented and papers read.

**An.** - Annual Report of the Director of the Coast & Geodetic Survey, 1932 [*Relatio annua redacta a Directore Instituti cuius nomem* « Coast etc. », *a. 1932*). (In Engl. & French). Bull. Hydrogr. Int. 3, 49-51. Monaco (1933). **a - 500**

Brief summary of the more important items of the Annual Report of the Director of the U. S. Coast and Geodetic Survey for the Financial Year ended 30th June 1932 concerning the activities of this Service, i. e. the work of the division of Nautical Charts, the hydrographic and topographic survey completed during the year, the study of tides and currents, magnetic and seismological work, the publishing of strip maps for air navigation, the activities of the Division of Instruments and those of Hydrography and Topography and Coast Pilot.

**An.** - International Association of Physical Oceanography - Association Internationale d'Océanographie Physique [*Societas Internationalis pro Oceanographia Physica*] (En angl. & franç). Bull. Hydrogr. Int., III, 59-60. Monaco (1934). **a - 501**

Summary of resolutions adopted at the General Assembly held at Lisbon in September 1933 concerned with the membership of the Association. List of organizations invited to become members of the Association.

**An.** - Fifth Pacific Science Congress [*V.us Congressus pro Scientiis ad Oceanum Pacificum pertinentibus*] (In Engl. & French.). Bull. Hydrogr. Int., 9, 162-169. Monaco (1933). **a - 502**

Bref compte rendu des travaux — se rapportant à l'océanographie — du V-ème Congrès Scientifique du Pacifique qui s'était réuni du I-er au 14 Juin 1933 à Victoria et Vancouver. Liste des notes discutées qui intéressent directement les travaux du Bureau Hydrographique International ; texte des résolutions adoptées à la dernière Session Générale du Congrès intéressant particulièrement le B. H. I.

**An.** - Séances du Comité du Plateau Continental Atlantique [*Consessus Comitati pro Platea Continentali Atlantica*]. Rapp. Pr. - Verb. Cons. Expl. Mer, LXXXVII, 6-7. Copenhague (1934). **a - 503**

Compte rendu des séances qui ont eu lieu à Paris le 12 Mai 1933. Programme des travaux Recommandation.

**An.** - La Riunione Scandinava della Conferenza Mondiale dell'Energia (C. M. E.) e il Primo Congresso Internationale delle Grandi Dighe (C. I. G. D.) [*De consessu Scandio, perdurante Conferentia Mundiali pro Energia. Agitur etiam de Priore Congressu Internationali magnis molibus foraneis ædificandis*]. En. Elettr., 11, 960-963. Milano (1933). **a - 504**

Breve resoconto delle sedute e dello svolgimento delle varie manifestazioni relative alle Riunioni, inaugurate il 26 giugno 1933 e chiuse il giorno 8 luglio dello stesso anno.

**An.** - Annual General Meeting of the Society for Nautical Research [*Congressus annuus generalis Societatis nauticis investigationibus peragendis*]. Mar. Mirr., XX, 4, 395-414. London (1934). **a - 505**

The meeting was held on July 25th under the presidency of Admiral Sir George P. W. Hope. List of the members present. Speeches.

**An.** - Participation de la Chine aux travaux de la 2-ème Année Polaire Internationale [*II.us Annus Polaris Internationalis. Participatio Sinensis*] (En russe). Meteorol. Vestn., 5/7, 201. Leningrad (1933). **a - 506**

**An.** - Scientific Publications and Bibliography [*Publicationes scientificæ ac bibliographiæ*]. Nature, CXXXIII, 3365, 641-642. London (1934). **a - 507**

On a plan for scientific bibliography and publications described in a memorandum issued by Science Service, Washington.

**An.** - The National Research Council of the Philippine Islands [*Consilium Nationale Inquisitionibus Scientificis peragendis ad Insulas Philippinas pertinens*]. Science, LXXIX, 2060, 559. New York (1934). **a - 508**

Constitution of the Council.

## Expeditiones oceanographiae et scientiae causa susceptae - Studia et quaesita oceanographica.

**Andreq R. B. W. G.** - The Somali Coasts: an Account of the T. A. Glover Senegal-Somali Expedition in the Somalilands and Erytrea [*De litoribus Somaliæ: Relatio de expeditione Senegalensi et Somala a Dom.* T. A. Glover *peracta in Somaliam et Erythraeam*]. 12 photos, 2 maps, Geogr. Journ., LXXXIII, 2, 81-100. London (1934). **a - 509**

Paper read at a Meeting of the Royal Geographical Society on 4 December 1933, which describes the country traversed by the Senegal-Somali expedition organized by Mr. T. A. Glover with the object of crossing Africa roughly along the northern equatorial belt, in the section of the journey from Wajir in Northern Kenya through Italian, British, and French Somalilands, and the Red Sea coast route to the port of Massawa in Erytrea.

**Ångström Anders** - Scientific Results of the Swedish-Norwegian Arctic Expedition in the Summer of 1931. Part VII: On the total Radiation from Sun and Sky at Sveanor (79° 56', 5 N, 18° 18' E) [*Resultatus scientifici ex expeditione Suetia ac Norvegica ad regiones arcticas, æstate 1931. Pars VII.a De radiatione totali a Sole et a Coelo in* Sveanor (*79° 56', 5 N, 18° 18' E.*)]. Tabl., Geogr. Ann., 2/3, 147-156. Stockholm (1933). **a - 510**

Short note on preceding work in these regions. Description of the instruments. Tables giving the records of the measurements for every hour, comparison with values obtained from some other stations at high latitudes for the same month, values given in gram calories per square centimeter and minute.

**Apollonov D. M.** - The Voyage of the S/S « Smolny » to Franz-Joseph Land in 1933 [*De navigatione navis* « Smolny » *ad Terram Francisci Josephi a. 1933*] (In Russ. & Engl.). 2 figs., Bull. Arct. Inst., 11, 342-344, 383-385. Leningrad (1933). **a - 511**

The route of the vessel from Murmansk to the Franz-Joseph Archipelago. During the voyage a number of errors in the latest maps of Franz Joseph Land have been detected and several new islands discovered. Account of the corrections in the cartography of the region and the new land discovered.

**Astrova M.** - The Voyage of the Ice-Breaker « Russanov » to the Maria Pronchischeva Bay [*De navigatione navis glacieiruptricis* « Russanov » *ad Bajam* « Maria Pronchischeva »] (In Russ. & Engl.). Bull. Arct. Inst. 340-341, 385-387. Leningrad ((1933). **a - 512**

Account of the expedition which lasted from August to October 1933 and whose aim was to convey a party of hunters to the Maria Pronchischeva Bay in the eastern part of the Taimyr Peninsula. Observations on ice-conditions, on the temperature of the surface-layer of the water have been made, and samples taken for chemical analysis. Some meteorological and hydrobiological researches have also been performed.

**Belknap R. L.** - The Michigan-Pan American Airways Greenland Expedition. Preliminary Results [*De aëronavigatione* « Michigan-Pan American » *in Groënlandiam. Resultatus priores*]. 9 figs., Geogr. Rev., XXIV, 1, 205-218. New York (1934). **a - 513**

A brief account of the preliminary results of the University of Michigan-Pan American Airways Greenland Expedition, organized in the spring 1932 to make certain glaciological investigations and to take part in the Second International Polar Year Program. The base station of the expedition has been established on the Upper Nugssuak near the Cornell Clacier in the Upernivik district on the west coast of Greenland at about lat. 74° 19' N. and long. 56° 08' W. Some additions to the existing maps of the part of Greenland, where the expedition was located, have been made, a resurvey of the Cornell Glacier carried out and special studies conducted in connection with the study of glaciation.

**Bellon Uriarte L. & Bardan Mateu E.** - Observaciones Oceanográficas realizadas durante 1932 en la Bahia de Las Palmas (Canarias) [*Observationes Oceanographicæ peractæ a. 1932 in Baja* Las Palmas]. 21 fig., Notas y Resum., Ser. II, 77, 44. Madrid (1934). **a - 514**

Meteorologia, Fisica del mar, Quimica del mar, Registro general de observaciones y datos numéricos.

**Bigelow Henry B.** - Northwestern Atlantic in 1931 [*De Oceano Atlantico Nord-orientali a. 1931*]. 1 tabl., Rep. Comm. Submar. Config. & Ocean. Circ. Nat. Res. Counc., 1932, 26-54. Washington, D. C. (1932). **a - 515**

Account of oceanographic investigations carried out by the following organizations and vessels: Biological Board of Canada, Institution of Marine Biology of Laval University, serial records of temperature and salinity taken from the trawler « Cape Agulhas » at 92 stations over the region of the Grand Banks around the coasts of Newfoundland and northward

along the coast of Labrador to lat. about 54° ; the International Passamaquoddy Fisheries Commission, whose investigation covers physical hydrography, phytoplankton and chemistry, zooplankton and herring ; hydrographic expedition to the Bahama waters organized by the Bingham Oceanographic Foundation of Yale University ; cruises of the International Ice Patrol ; biological investigations of the New York Zoological Society ; activity of the North American Council for Fisheries Investigations ; expedition of the Princeton University in the West Indian region ; joint program of the United States Bureau of Fisheries and the Museum of Comparative Zoology. Woods Hole Oceanographic Institution : the maiden voyage of the « Atlantis », drift bottles experiment, 1931 ; projects of investigations commenced and carried on during 1931.

**Bordoni U.** - L'Istituto Nazionale di Ottica. Relazione alla I Riunione dell'Associazione Ottica Italiana [*Institutum Nationale Opticum. Relatio ad I.um Consessum Societatis Opticæ Italicæ*]. (Firenze 21-24 maggio 1934-XII). Ric. Scient., a. V, I, 9/10, 480-484. Roma (1934). **a - 516**

**Boyd Louise A.** - Further Explorations in East Greenland, 1933 [*Explorationes novæ in Groënlandia occidentali a. 1933*]. 12 figs., Geogr. Rev., XXIV, 3, 465-477. New York (1934). **a - 517**

This second expedition of the author to East Greenland was made for the particular study of the fjords and glacial marginal features. The Danish and Norwegian expeditions having practically completed the exploratory survey of the region, the American expedition planned to map small, critically selected areas in detail, using a Wild phototthoedolite. An account of this work is given here.

**Byrd Richard E. & Saunders Harold E.** - The Flight to Marie Byrd Land with a Description of the Map [*Navigato aëria ad* M. B. Land]. 29 figs., 1 sep. map., Geogr. Rev., XXIII, 2, 177-209. New York (1933). **a - 518**

Part I. The Flight (by Adm. R. E. Byrd) : The course set northeastward. Scott's Nunantakas. Other peaks of the Alexandra Mountains. Discovery of the Edsel Ford range. The continental shoreline in Marie Byrd Land. Glaciers and bergs. Appearance of islands in the Ross Sea. La Gorge Mountain group. Return to Little America. Results of the flight : developing of the details of King Edward VII Land, extension of the outline of the coast beyond by 200 miles, and filling in a great section of the map that had hitherto been blank. Part II. The Map (by H. E. Saunders) : The map considered as a preliminary reconnaissance survey. Identification of points. Methods of plotting employed. Plotting of bearings. Multiple-arm protractor for plotting. Orientation of photographs and plots. Scale determination. Determination of heights. Detailed plotting procedure.

**Evghenov N.** - Sur les travaux de la direction pour la Sibérie Occidentale du Service Hydrographique de l'Administration de la Voie Maritime du Nord en 1933 [*De operibus peractis a Directione pro Siberia Occidentali Servitii Hydrographici ad Administrationem Cursus Maritimi Nordici pertinentis a. 1933*] (En russe). Bull. Arct. Inst., 12, 418-419. Léningrad (1933). **a - 519**

Compte rendu des travaux au cours desquels une exploration systématique de la région à l'ouest du fleuve Yenissey a été accomplie, ainsi que la détermination de quelques points astronomiques de grande précision à l'aide de la T. S. F., dont quatre ont été déterminées sur le littoral continental sur le Cap Kouznetzkij, le Cap des Deux Ours, à Morzhovoje et dans l'embouchure de la rivière Pjasina, tandis que dix autres ont été faits sur l'Ile de Vilkitzkij, l'Ile de Néoupokoev, quelques îles dans la zone de la Baie de Pjasina et les îlots de Minine, ainsi que sur l'Ile de Scott-Hansen et l'Ile de Sverdrup. En outre des levés de reconnaissance très importants du relief du fond de la mer au nord-ouest de l'Ile de Dickson, et d'un des bras du delta du fleuve Obj, des travaux hydrologiques sur les marées, les courants, la température et la salinité des eaux, des observations magnétiques et la construction de signaux de navigation sur plusieurs points de la région explorée ont été effectués.

**Evghenov N.** - Expedition in 1933 of the Siberian Hydrographic Department of the Central Administration of the Northern Sea Route [*Expeditio a. 1933 peracta a Dipartimento Hydrographico Siberiano ad Administrationem Centralem pro Cursu Maritimo Nordico pertinente*] (In Russ. & Engl.). Bull. Arct. Inst., 1, 4-5, 35-36. Leningrad (1934). **a - 520**

Account of the expedition on six hydrographical research vessels divided into the three following detachments : 1) the Kara Sea party on board the « Circule » and the « Farvater » ; 2) the party of the Obj District on the « Chronometer » and the « Stativ », and 3) the party of the Yenissey District on the « Schturman » and « Shirota ». During the expedition hydrological and geographical survey has been performed, 15 astronomical points determined, and 21 navigation marks erected.

**Fleming J. A.** - Introduction [*Introductio*]. Nat. Res. Counc., Trans. Amer. Geophys. Union, 14th Ann. Meet., Apr. 27-29, 3-4. Washington, D. C. (1933). **a - 521**

Object of the American Geophysical Union ; the seven Sections of the Union ; Publications of the Union ; summary of the work of the 14th annual Meeting of the Union.

**Fleming J. A.** - Progress-Report on the International Polar Year of 1932-33 [*Relatio de progressibus scientificis peractis anno Polari perdurante 1932-33*]. 10 figs., 1 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., apr. 27-29, 1933, 145-146. Washington, D. C. (1933). **a - 522**

On hand of information printed in various publications, the author gives a summary of the program of the Second International Polar Year dealing especially with the program and activity of the College-Fairbanks station, and the other stations established by the United States and Canada. The distribution of temporary and permanent electric stations in the southern and northern hemisphere is indicated on two figures and a list is given of the stations of the international Polar year of 1932-33 and their approximate geographic position.

**Fleming John A.** - Progress Report on Compilation of Oceanographic Results of the « Carnegie » Cruise, 1928-29 [*Relatio de resultatibus Oceanographicis ex navigatione navis* « Carnegie » *1928-29*]. Rep. Com. Submar. Conf. & Ocean. Circ., Nat. Res. Counc., 1932, 83-88. Washington, D. C. (1932). **a - 523**

Further progress in the reductions and compilations of the oceanographic data obtained on the « Carnegie », which complete those published in Report Comm. Subm. etc. 1931. Summary of the results in physical and chemical oceanography to be published in separate volumes, as well as of gravity observations, pilot-balloon observations, meteorological data collected and biological investigations.

**Fleming John A.** - Oceanographic Work in the Polar Regions [*Opus oceanographicum peractum in regionibus polaribus*]. Rep. Comm. Submar. Config. & Ocean Circ., Nat. Res. Counc., 1932, 88-90. Washington, D. C. (1932). **a - 524**

Oceanographic measurements made during the Wilkins-Ellsworth Trans-Arctic Submarine Expedition ; magnetic determinations made during the « Graf Zeppelin » Expedition in July 1931 and oceanographic work of « Discovery II » and « Scoresby ».

**Fund Johnson** - Station Records of the First Johnson-Smithsonian Deep-Sea Expedition [*Inscriptio stationum ad I.am Expeditionem* Johnson-Smithsonian *maris abyssis studendis susceptam pertinentium*]. 1 pl., 1 chart on table, 31 pp., Smiths. Misc. Coll., XCI, 1. Washington, D. C. (1933). **a - 525**

**Gherardi W. R.** - Oceanographic Work of the Hydrographic Office and the United States Navy during the Past Year [*Opus oceanographicum peractum ab Officio Oceanographico et a Marina Provinciarum Foederatarum Americæ anno elapso*]. 6 figs., 1 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 180-193. Washington, D. C. (1933). **a - 526**

Naval surveys. Charts from United States naval surveys. Sonic sounding obtained by United States Naval vessels. Unsounded areas of the North Pacific Ocean. Bathymetrical chart of the North Pacific Ocean. Current-charts. Oceanic temperatures. Mechanical extraction of oceanographic data. Dynamic oceanographic surveys. International Scientific Expedition to West Indies. Navigator's Sailing Directions or Pilots. Navigational manual. Magnetic charts.

**Gorbatzkij G. V.** - The Work of the Expedition to the Northern Part of Novaja Zemlja [*Opus peractum ab expeditione in regionem septentrionalem Novæ Zemliæ*]. (In Russ., Engl. Summ.). Bull. Arct. Inst., 11, 335-337, 380-381. Leningrad (1933). **a - 527**

Account of the expedition, which, starting from Leningrad on July 15th 1933 followed the way of the White-Sea-Baltic Channel on board the « Iceberg ». The aim of the expedition was the geological exploration of the northern part of Novaja Zemlja. The instrumental-topographic survey of the area has greatly changed the former idea of the coastal profile of the northern part of Novaja Zemlja. Some very important corrections have also been made on the existing chart of the region under consideration.

**Heyrelles François** - « Le Président Théodore-Tissier ». Navire de recherches scientifiques de l'Office des Pêches Maritimes [*Navis cuius nomen* « Presidente Théodore-Tissier » *ad scientificas investigationes peragendas idonea*]. 1 fig., Bull. Soc. Oceanogr. France, 73, 1293-1295, 74, 1297-1298. Paris (1933). **a - 528**

Bref résumé de l'activité de l'Office technique et scientifique des Pêches maritimes. Quelques précisions sur les appareils mis à la disposition des savants pour leurs travaux à bord du nouveau navire de recherche de l'Office « Le Président Théodore Tissier » : Outillage hydrographique, outillage océanographique, outillage de laboratoire, outillage de pêche, outillage frigorifique.

**Hidaka K., Matudaira Y., Mizuuti M., Kubo T., Yasui Z., Kurasige H., Yanagisawa T. & Kato T.** - The Results of the Oceanographical Expedition of R. M. S. « Syunpu Maru » to the Northern Part of the Japan Sea in the Summer of 1931 and 1932 [*De resultatibus ex oceanographica expeditione navis* « Syunpu Maru » *in sectorem nordicum Maris Japonii æstate 1931 et 1932*]. 4 tabl., 101 pls. Journ. Oceanogr., VI, 1, 1-102. Kobe, Japan (1934). **a - 529**

The present report contains the results of the 4th and 5th expeditions of 1931 and 1934 (s. account of the previous expeditions in the Vols. II, III and IV of the Journ.) : 1) Stations and sections ; 2) Classification of the observations : 3) Tables ; 4) Water temperature ; 5) Density ; 6) Dynamic calculation ; 7) $0_2$, pH, Phosphates, silicates, nitrates and nitrites ; 8) Meteorological elements ; 9) Planktons ; 9) Terrestrial magnetism.

**Hoel Adolf** - Norwegian Expedition to Spitsbergen and East Greenland [*De navigatione a Norvegis suscepta in* Spitsbergen *et Groënlandiam Occident.*] (In Russ. & Engl.). Bull Arct. Inst., XII, 430-431, 443. Leningrad (1933). **a - 530**

Brief account of the work of the expedition sent out by Norges Svalbard-og-Ishavs- Undersökelser to Spitsbergen and East Greenland from June 24 to August 27, 1933 on the ship « Polarbjörn ». Building of a wireless station and lighthouses ; tne staff of the expedition ; the work performed.

**Horn Gunnar** - Norges Svalbard- og Ishavsundersøkelsers ekspedisjon til Sydøstgrønland med « Veslemari » sommeren 1932 [*De expeditione á Norvegis suscepta æstate 1932 navis* « Veslemari » *auxilio, inquisitionibus ducendis scientificis in* Svalbard *insulas ac mare Arcticum*]. 7 fig., Norsk Geogr. Tidsskr., IV, 7, 3, 409-441. Oslo (1933). **a - 531**

Le but de cette expédition était de continuer le travail commencé par les expéditions « Heimen » et « Signalhorn » au Groenland sud - est en 1931, c'est à dire, de passer par toute la région explorée par les Norvégiens de 60° 30' jusqu' au 63° 40' N. Equipement de l'expédition. Description détaillée du voyage.

**Hoyle R. M.** - Oceanographic Work of the Coast Guard in 1932 and Plans for 1933 [*Opus oceanographicum peractum a navibus litorum præsidiariis a. 1932. Rationes pro a. 1933*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 193-194. Washington, D. C. (1933). **a - 532**

Account of the work of the third of the three vessels assigned in 1932 to Ice Patrol duty, the « General Green », especially equipped for oceanographic investigation. Her duty was to make a preliminary observation-cruise to determine ice-conditions prior to the inauguration of the regular patrol and to make regular oceanographic surveys about the Great Banks of the critical ice-regions during the ice-season. Brief discussion of the practical use of the dynamic current-charts and isotherm charts in predicting ice-drifts.

**Iselin C. O'D. II** - Some Phases of Modern Deep-Sea Oceanography [*Res ad oceanographiam hodiernam abyssalem pertinentes*]. 1 fig., 4 pls. Smithsonian Rep. 1932, 251-267. Washington, D. C. Contr. 14, Woods Hole Oceanogr. Inst. Woods Hole, Mass. (1933). **a - 533**

After some general consideration on the aim and scope of the shallow-water and deep-sea oceanography, the author gives the description of the « Atlantis », which, operated by the Woods Hole Oceanographic Institution, is one of the most modern examples of a scientific research ship. Investigations made by the « Atlantis » during the past year concerned with the current system, the water movements (horizontal and vertical), the oceanic circulation and its foremost problems.

**Ivanov I. M.** - The Work of the Arctic Coal Trust at Spitzbergen [*De operibus peractis a Societate* «*anglice* Trust» *pro Carbone Arctico in* Spitzbergen]. Bull. Arct. Inst., 9/10, 286-288, 321. Leningrad (1933). **a - 534**

Results of the geological expedition to the region of Soviet mines on Spitzbergen during which some hydrographical, hydrological, and topographic work has been performed.

**John D. Dilwyn** - The Work of R. R. S. « Discovery II » 1931-33 [*De operibus navis inquirentis nomine* « Discovery II » *peractis 1931-33*]. 1 chart, Pol. Rec., 6, 128-131. Cambridge (1933). **a - 535**

Account of the second commission in Antarctic waters of the Royal Research Ship « Discovery II », which left London on October 3, 1931, and returned on May 5, 1933. Hydrological and plankton surveys of the waters of the Falkland Sector. Geographical limits of the surveys. Observations in the Weddel Sea with peculiar reference to its currents. Complete circumnavigation of the Antarctic. Records on weather and pack-ice. Cartographic work in the South Orkney Islands : survey of the group, correction of the coastal line on the map, geological and biological investigation of the islands. The loss of the Captain, Commander W. M. Carey, R. N.

**Lestonnat Raymond** - La genèse de l'Océanographie [*De genesi Scientiæ Oceanographicæ*]. 3 fig., Science & Monde, 134, 842-843. Paris (1933). **a - 536**

Information sur la mise en chantier à Cherbourg du navire hydrographe « Amiral Mouchez » et sur l'entrée en service du navire océanographe « Président-Théodore-Tissier » ; quelques caractéristiques de ces navires ; la contribution à l'exploration des mers qui pourra se réaliser grâce à ces deux navires. Développement de l'exploration des couches abyssales de la mer ; contributions des différentes nations avec référence spéciale aux résultats des expéditions françaises du « Travailleur » et de l' « Hirondelle ».

**Licent E.** - Dix années (1914-1923) de séjour et d'explorations dans le Bassin du Fleuve Jaune, du Pai Ho et des autres tributaires du Golfe du Pei-Tchen-ly. Album des photographies de l'Atlas [*Explorationes in Bacinum Fluminis Flavi, fluminis* Pai Ho *aliorumque tributariorum Sinus* Pei-Tchen-ly *decem annos peractæ (1914-1923). Album Photographiarum ex Atlante*]. 383 pl., Mission de Sien-Hsien, Tientsin (1933). **a - 537**

**Littlehales G. W.** - United States Navy: Oceanographic Work under the Cognizance of the United State Hydrographic Office [*Classis ad Americæ Provincias Foederatas pertinens : Opus oceanographicum peractum auspice Officio Hydrographico Americano*]. Rep. Comm. Submar. Config. & Ocean. Circul., Nat. Res. Counc., 1932, 14-18. Washington, D. C. (1932). **a - 538**

Account of hydrographic survey performed by the « Nokomis », the « Hannibal », and the « Niagara ». The latter was replaced in January 1931, by the « Fulton ». Survey in Cuba, Venezuela, Gulf of Panama, Bartlett Deep. Summarization of the observations by mariners of oceanic temperatures. Reviewed current charts. International Scientific Expedition to the West Indies. Oceanic soundings by the U. S. S. « Ramapo » in the course of ten trans-oceanic voyages over the North Pacific. Sounding on Guardian Bank.

**Lukens R. R.** - Oceanographic Work of the Coast and Geodetic Survey During the Past Year - [*Opus Oceanographicum peractum a* « Coast and Geodetic Survey » *anno elapso*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr., 27-29, 1933, 194-197. Washington, D. C. (1933). **a - 539**

Account of the completion of the survey of Georges Bank, in which a new feature was introduced, that of rigid control by means of the development of the radio-acoustic sound-ranging. Current-observations made from the station-ship while at anchor at various stations scattered over the banks. Deep-sea soundings on the route from Cape Hatteras to the Bahamas and from Tortugas to Sabine Bank. Offshore survey along the California coast. Radio-acoustic range-finding and echo-sounding carried out on the Pacific and the Atlantic Ocean. Survey of Kodiak Island and the banks surrounding it in south-western Alaska. Manutention of 33 primary tide-stations and the results of the observations carried on at these stations.

**Marmer H. A.** - Recent Major Oceanographic Expeditions. A Review of the « Meteor », « Carnegie », « Dana » and « Snellius » Expeditions [*Recentiores Expeditiones Oceanographicæ maximi momenti. Compendium resultatuum ex navigationibus navium* « Carnegie, Meteor, Dana *et* Snellius »]. Geogr. Rev., XXIII, 2, 299-305. New York (1933). **a - 540**

Review of the work of the four expeditions mentioned in the title.

**Maximov I.** - Scientific Work on Board the Ice-Breaker « Krassin » in Summer 1933 [*Opus scientificum peractum in navi glaciei ruptrici* « Krassin » *æstate 1933*]. Bull. Arct. Inst., 11, 334-335, 379-380. Leningrad (1933). **a - 541**

Staff of the transport expedition to the mouth of the Lena River. Hydrological work performed during the voyage of the « Krassin » ; meteorological and aerological observations.

**Miloradovitch B. V.** - Travaux de l'expédition de l'Institut Arctique à la Novaja Zemlja en 1933 [*De operibus solutis perdurante expeditione ab Instituto Arctico peracta ad Novam Zemliam a. 1933*] (En russe et angl.). Bull. Arct. Inst., 12, 408-411, 451-454. Leningrad (1933). **a - 542**

Compte rendu des travaux de l'expédition dont le but était le levé géologique et topographique du littoral de la Novaja Zemlja sur l'échelle 1/100000 dans la région entre le Cap Zhélanije et le Cap Spornyj Navolok. Etude des fossiles caractérisant les divers faciés géologiques de la zone ainsi que de sa structure tectonique.

**Mosby Olav** - Studies of the Oceanography of the Grand Banks Region in the Spring of 1931 Based on Data Obtained by the Ice Patrol [*Studia oceanographica peracta in regione magnorum banchorum ex datis elaboratis ab* Ice Patrol]. Woods Hole Ocean. Inst., Rep. 1930-32, 33. Woods Hole (1933). **a - 543**

Summary of investigations accomplished in the northwestern Atlantic in 14 different sections across the Labrador current between 40° N and 61° N.

**Nobile Umberto** (trad. de P. Grillet) - L'Italia au Pôle Nord [*Italia eiusque navigationes ad Polum Nordicum*]. Nombr. pl., 1 carte h. t., xvi + 360 pp., Edit. de la Madeleine. Paris (1933). **a - 544**

**Obroutchev S.** - Expédition en avion de Tchoukhotsk en 1933 [*De aëronavigatione ad* Tchoukhotsk *a. 1933*] (En russe et angl.). 1 carte, Bull. Arct. Inst., 12, 402-407, 451-447. Leningrad (1933). **a - 545**

Compte rendu de la continuation des travaux de l'expédition (v. : « Bull. Arct. Inst. », n° 11/12, p. 248, 1932) commencés en 1932. Résultats des vols de l'hydravion « Junkers » à trois moteurs au-dessus de la région explorée. Levés cartographiques de la région d'Anadyr et de la partie nord-orientale de la circonscription de Tchoukhotsk jusqu'au méridien du Cap Severnyj, et du littoral de la Mer de Bering (échelle 25 km = 1 cm.). Description géomorphologique de la région survolée.

**Orlovskij P.** - Département Hydrographique de la Direction Centrale de la Voie Maritime du Nord [*Dipartimentum Hydrographicum ad Directionem Centralem pro cursu maritimo nordico pertinens*]. (En russe, rés. angl). Bull. Arct. Inst., 12, 422-423, 461. Leningrad (1933). **a - 546**

Information sur les devoirs et prérogatives du nouveau Département, dont la fondation a été annoncée dans le n° 1/2 du « Bulletin », 1933 ; programme des travaux du Département chargé de réaliser les mesures inhérentes à l'étude hydrographique de la région parcourue par la Voie Maritime du Nord.

**Orvin Anders K.** - Norges Svalbard- og Ishavs-undersøkelsers ekspedisjoner til Nordøst-Grønland i årene 1931-1933 [*Expeditiones Norvegicæ in Groënlandiam nord-occidentalem peractæ ab instituto* « Norges Svalbard- og Ishavs- Undersøkelser ».

*a. 1931-1933*]. 4 fig., 1 carta, Norsk Geogr. Tidsskr., V, 2, 72-94. Oslo (1934). **a - 547**

Le spedizioni del 1931, del 1932 e del 1933. Navi e partecipanti. Descrizione del viaggio. Risultati : determinazioni astronomiche della latitudine, della longitudine ed azimut ; rilievi per costruzione di carte geografiche ; osservazioni idrografiche, geologiche e biologiche.

**Rasmussen Knud** - Explorations in Southeastern Greenland. Preliminary Report of the Sixth and Seventh Thule Expeditions [*De explorationibus in Groënlandia Sud-orientali. Relatio prior sextæ ac septimæ expeditionis* Thule *nomine*]. 7 figs., Geogr. Rev., XXIII, 3, 385-391. New York (1933). **a - 548**

Course of the 1931 Expedition, a reconnaissance along the southeastern coast of Greenland, which owes its successful accomplishment to the unusual conditions obtained in 1931. Results of the Sixth Thule Expedition ; magnetic and cartographic work of the expedition. The Seventh Thule Expedition, 1932 : complete exploration (topographical, geological, and archeological) of the stretch from Umivik to Cape Farewell by means of some 20.000 km. of motor boat's travelling and 125 flyings hours of the seaplane.

**Ratmanov G. E.** - Expedition of the State Hydrological Institute to Bering Sea in 1933 [*Expeditio ad Mare* Bering *nomine ab Instituto Hydrologico nationali peracta a. 1933*] (In Russ. & Engl.). Bull. Arct. Inst., 3, 116-118. 155-157. Leningrad (1934). **a - 549**

Staff and program of work of a complex expedition equipped by the State Hydrological Institute together with the Pacific Fisheries Institute in 1933 in order to continue the work begun in 1932 in the northern part of the Bering Sea, in the Bering Strait and in the Chukchee Sea. Route of the expedition from Vladivostok to the Bering and Chukchee Seas. Results of the observations, and the hydrological sections with especial reference to the determination of the boundaries of the cold Anadyrj spot and the water-temperature in the region under consideration. Verification of the current chart of 1932 which proved to be correct. Ice conditions, and discovery of a circular current in the SW part of the Chukchee Sea.

**Samoilovitsch R. L.** - L'expédition allemande au Groënland et ses travaux scientifiques [*De expeditione a Germanis suscepta in Groënlandiam eiusque operibus scientificis*] (En russe). 5 fig., Arctica, 1, 31-40. Léningrad (1933). **a - 550**

But de la « Deutsche Grönland-Expedition Alfred Wegener ». Les trois stations de l'expédition. Le personnel de l'expédition. Principaux résultats des travaux scientifiques de l'expédition : mesure de l'épaisseur de la couche de glace continentale de la rive Est jusqu'à la station centrale de l'expédition, levé du profil de la calotte glaciaire du Groenland, mesures gravimétriques exécutés sur cinq points du littoral, étude des propriétés physiques, de la température, du poids spécifique, de la stratification et de la structure de la glace, mouvements des glaces continentales. Observations météorologiques et aérologiques. Description de la méthode séismique pour la détermination de la structure et de l'épaisseur de la glace.

**Samojlovitsch R. L.** - Expeditions equipped by the Arctic Institute and the Chief Administration of the Northern-Sea-Route in 1933 [*Expeditiones peractæ ab Instituto Arctico ac Directione Centrali pro cursu Maritimo Nordico a. 1933*] (In Russ., Engl. Summ.). Bull. Arct. Inst., 9/10, 269-274, 312-316. Leningrad (1933). **a - 551**

General account of the work of exploration concerned with the Northern Sea-route made since 1928. Sea-expedition of the « Stalin », the « Volodarskij » and the « Pravda », sent from the West to the mouth of the Lena River. The repetition of the last year's voyage of the « Sibirjakov » by the newly built ice-breaker « Tscheljuskin ». The work of the ice-breaker « Krassin ». The expedition of the « Sedov ». Account of the air-service in the Arctic. For the first time in the history of Arctic explorations in 1933 over 40 ships of various types (including the vessels of the Kara Expedition) were navigating there.

**Samoilovitsch R. L.** - Observations géomorphologiques et glaciologiques au cours de la navigation du dirigeable « Comte Zeppelin » en été 1931 [*Observationes geomorphologicæ et glaciologicæ peractæ expeditione perdurante aëronavis* « Graf Zeppelin » *æstate 1931*]. 3 fig., Trans. Arct. Inst., XII, 5-23. Leningrad (1933). **a - 552**

But de l'expédition. Observations générales : Le but de l'expédition organisée par la Société Internationale « Aéroarctique » a été l'exploration des zones peu connues ou inconnues de la région polaire sur la base des recherches géographiques et géomorphologiques, et des prises de vue aériennes. Compte rendu sur le vol Friedrichshafen-Berlin- Arkhangel. Ile Morzhovetz. Péninsule Kanine ; Terre de François-Joseph : Observations glaciologiques sur la Terre du Prince Georges et Alexandre. Les Iles Belyjé. Severnaja Semlja : Position géographique. Section horizontale. Observations géomorphologiques. Réseau hydrographique. Formes de congélation. Péninsule Tajmyr. Novaja Zemlja : Formes et limite de congélation. Matotchkine Char. Ile Joushnyj. Conclusions : Importance et avantages de l'emploi du dirigeable pour l'exploration des régions polaires. Installations et aménagement de la gondole en vue des observations à effectuer.

**Schulz B.** - Die Fahrt des Vermessungsschiffes « Meteor » nach den ostisländischen und ostgrönländischen Gewässern im Sommer 1933 [*De navigatione navis ad mensuras persolvendas idoneæ* Meteor *nomine, in Islandiam ac Groënlandiam orientales æstate 1933*]. 1 Karte, Ann. d. Hydrogr., LXII, 1, 24-26. Berlin (1934). **a - 553**

Kurze Uebersicht der seit 1928 von dem Vermessungsschiffe « Meteor » ausgeführten ozeanographischen und meteorologischen Arbeiten. Bericht über die im Sommer 1933 ausgeführte Untersuchung des Ostislandstromes und seines Wurzelgebietes im Gebiete nördlich und östlich von Island bis zur Linie Scoresby-Sund - Jan Mayen und bis 7° W-Lg. Serienmessungen auf 29 Stationen.

**Schulz Bruno** - Die Ergebnisse der Polarexpedition mit dem U-Boot « Nautilus » [*Resultatus ex navigatione ad polos, submergibilis* « Nautilus » *auxilio*]. 1 Tab., 1 Taf. a. T., Ann. d. Hydrogr., LXII, 4, 147-152. Berlin (1934). **a - 554**

Kurze Beschreibung des Verlaufes der Expedition von Sir Hubert Wilkins in 1931 in die Polargewässer. Hauptergebnisse der während der Expedition gewonnenen Beobachtungen : 1) Echolotungen ; 2) Hydrographie ; 3) Bodenproben ; 4) Schweremessungen.

**Sergheev M.** - L'expédition du Taymyr Occidental de la Direction Centrale de la Voie Maritime Septentrionale en 1933 [*De expeditione ad* Taymyr *Occident. peracta a Directione Centrali pro Cursu maritimo septentrionali a. 1933*]. Bull. Arct. Inst., 11, 330-334. Leningrad (1933). **a - 555**

Description du voyage du schooner « Beloukha » (ex-« Hobby ») d'Arkhanghel à la Mer de Kara. Naufrage du schooner sur le chemin de retour. Sauvetage du personnel, des matériaux et des travaux de l'expédition par le vapeur « Arkos ». Bref résumé des travaux hydrologiques, hydrographiques, topographiques accomplis, ainsi que des résultats des levés, de la pose de signaux de navigation, de la photographie et des explorations aériennes.

**Sergheev M.** - L'expédition de Taymyr (Résultats preliminaires) [*De expeditione ad* Taymyr. *Resultatus priores*] (En russe). Sov. Sev., 1, 141-149. Moskva (1934). **a - 556**

**Seymour-Sewell R. B.** - The John Murray Expedition to the Arabian Sea [*Agitur de* John Murray *eiusque expeditione ad Mare Arabicum*]. 3 figs., Nature, CXXXIII, 3351, 86-89. London (1934).

(—) Voir : Bull. Hydrogr. Int., 1, 12-15 et 3, 67-72. Monaco (1934) **a - 557**

Short résumé of the work carried out during the first three months of the expedition. Topography and bottom deposits. Physico-chemical results. Biological observations.

**Slayton C. C.** - Oceanography and the Navy [*Oceanographia*]. 5 figs., and 2 on tabl. U. S. Nav. Inst. Proc., LX, 371, 33-43. Annapolis, Md. (1934). **a - 558**

On the importance of the oceanography to the Navy. Contribution of the Navy to science. Some historical hints. Navy's work. Examples. Progress. Programs. (See discussion on the same number p. 99 by Adm. W. R. Gherardi U. S. N.).

**Sverdrup H. U.** - General Report of the Expedition [*Relatio generalis ad expeditionem pertinens*] 12 figs., on 2 pls., The Norw. North Pol. Exped. « Maud » 1918-1925. Scient. Res., I, 1, 1-22. (1933). **a - 559**

Amundsen's initiative, preparatives and object of the expedition. Equipment, description of the voyage. List of publications dealing with the expeditions.

**Thompson David G.** - Some Relations between Ground-Water Hydrology and Oceanography [*De quibusdam correlationibus inter hydrologiam aquarum subterranearum et oceanographiam*]. Nat. Res. Counc., Trans. Amer., Geoph. Union, 14th Ann. Meet., 27-29 Apr. 1933, 30-33. Washington, D. C. (1933). **a - 560**

Some brief remarks which show that the ground-water hydrologist has a very definite interest in certain phases of oceanography, but that unfortunately he is able to offer little in return to the oceanographer. Some examples are given which illustrate the geologic and hydrologic conditions that govern the occurrence and movement of ground-water in areas along the sea-coasts.

**Thompson Thomas G.** - Oceanographic Research at the University of Washington for the Year 1932 [*De inquisitionibus oceanographicis peractis in Universitate Studiorum urbis* Washington *a. 1932*]. Nat. Res. Counc. Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr., 27-29, 1933, 219-221. Washington, D. C. (1933). **a - 561**

Brief summary of the work made from the research boat « Catalyst ». Attached are listed papers published during 1932, papers completed, submitted or ready to be submitted for publication, and projects under way.

**Urvantzev N. N.** - Severnaja Zemlja. A Short Survey of Exploration [*De* Severnaia Zemlja *eiusque exploratione*] (In Russ. & Engl.). 6 tabl., 10 figs., 4 pls., 53 pp., Arct. Inst. U. S. S. R. Leningrad (1933). **a - 562**

I. Survey of the exploration of Severnaja Zemlja by the expedition of the ice-breaker « Sedov » ; II. Astronomic-geodetical and other work carried out by the expedition : 1) The routes ; 2) Topographical Route-work ; 3) Astronomical observations ; 4) Cartographical work ; 5) Geodetic work at the Home-base ; 6) Magnetic observations : III) Geological work : 1) Geomorphological survey ; 2) Glaciation ; 3) Stratigraphy ; 4) Tectonics ; 5) Igneous rocks ; 6) Quaternary period ; 7) The Tajmyr folding zone.

**Van Riel P. M.** - Ozeanographische Forschung in Niederländisch-Ostindien [*Explorationes oceanographicæ in Indis Hollandicis orient.*] Ztschr. d. Ges. f. Erdkunde (Sonderabdr.), 5/6, Berlin (1932).

(—) Voir aussi : Bull. Hydrogr. Int., 2, 35-36. Monaco (1933). **a - 563**

Analyse der Ergebnisse der ozeanographischen Beobachtungen im Laufe der Expedition des « Snellius » in Niederländisch-Ostindien.

**Vaughan T. Wayland** - Oceanographic Research at the Scripps Institution of Oceanography, University of California, April 1932 to April 1933 [*De inquisitionibus oceanographicis in* « Scripps Institution » *pro Oceanographia, ad Universitatem Californiensem pertinente, ab aprili 1932 ad aprilem 1933*]. 1 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 209-219. Washington, D. C. (1933). **a - 564**

Sources of oceanographic data. Physical oceanography and marine meteorology. Chemistry. Biology. Physiology. Marine sediments.

**Vaughan T. Wayland** - Pacific Coast of Canada and the United States [*De litoribus Canadensibus litoribusque ad Americæ Provincias Foederatas pertinentibus Oceanum Pacificum spectantibus*]. Rep. Comm. Submar. Config. & Ocean. Circ., Nat. Res. Counc., 1932, 54-83. Washington, D. C. (1932). **a - 565**

Oceanographic work performed in British Columbia during 1931 : chemical and biological investigations, fisheries technology, oceanic temperatures and circulation. Activity of the International Fisheries Commission. Work of the Oceanographic Laboratories of the University of Washington : new building, launching of the research boat « Catalyst », research at Friday Harbour, program and staff. Hopkins Marine Station, Pacific Grove, Ca. : hydrographic stations, currents, sediments, biological investigations, silica and phosphate determinations. University of Southern California. Scripps Institution of Oceanography, La Jolla, Ca. : reception of oceanographic data,physical oceanography and marine meteorology investigations, chemistry and biological investigations : bacteriology, phytoplankton, foraminifera, fishes, physiology of marine invertebrates, miscellaneous, marine sediments investigations.

**Vogt Thorolf** - Norges Svalbard- og Ishavsundersøkelsers ekspedisjon til Sydøstgrønland med « Heimen » sommeren 1931 [*De expeditione Norvegica inquisitiones scientificas agendi causa in Insulis* Svalbard *et per Mare Arcticum, navis* « Heimen » *auxilio, æstate 1931*]. 13 fig., 2 maps., Norsk Geogr. Tidsskr., IV, 5, 289-332. Oslo (1933). **a - 566**

Preceding expeditions. Organization and plan of the present expedition. The voyage to South Greenland. Tingmiarmiut. Akorninarmiut. Umanak. Umivik . Return to Akorninarmiut. Return to Norway.

**Wegener Kurt** - Einiges aus den wissenschaftlichen Ergebnissen der Deutschen Grönland- Expedition Alfred Wegener [*Relatio de resultatibus scientificis ex Germanica expeditione* Alfred Wegener *in Groënlandiam*]. 2 Abb., Naturwiss., XXI, 5/6/7. 111-115. Berlin (1933). **a - 567**

Vortrag von Prof. Kurt Wegener mit einleitenden Worten von F. Schmidt-Ott. Da ein vorläufiger allgemeiner Bericht anlässlich der Gedenkfeier für Alfred Wegener schon gegeben worden ist, (Ztschr. d. Ges. f. Erdk. 3, 4, Berlin, 1932) werden hier nur die rein wissenschaftlichen Ergebnisse in Bezug auf : 1). Meteorologie ; 2) Geodäsie ; 3) Seismik und Glaziologie mitgeteilt.

**Wiese W.** - The Voyage of the Ice-Breaker « Sibirjakov » to Cape Cheliuskin in 1933 [*De navigatione navis glacieruptricis* « Sibirjakov » *ad Caput* Tscheljuskin *a. 1933*] (In Russ., Engl. Rés.). Bull. Arct. Inst., 9/10, 274-278, 316-319. Leningrad (1933). **a - 568**

Account of investigations carried out on board the icebreaker on the way from Archangel to Cape Tcheliuskin and back. Observations on the ice-conditions. Investigation and hydrological survey of the southern shore of the group of islands discovered in 1932 by the « Russanov » expedition. Discovery of a new land named « Arctic Institute Land » whose astronomical position has been determined (preliminary coordinates Lat. 75° 29' N, Long. 89° 24' E.).

**Wiese W.** - Oberflächenbeobachtungen im Barents- und Karischen Meer in Sommer 1930 [*Observationes in stratus superficiales aquarum Maris Barentii et Maris Karensis, æstate, 1930*]. (In Russ., deutsch. Rés.). 7 Abb., u. Kart., Scient. Res. Arctic Exped. on the « Sedov » in 1930. Hydrol. & Meteorol., Trans. Arct. Inst., 1, 1-42. Leningrad (1933). **a - 569**

Ergebnisse der während der Fahrt des Eisbrechers « Sedow » im Sommer 1930 nach Nowaja Zemlja, Franz-Joseph Land und Sewernaja Zemlja jede Stunde ausgeführten Oberflächenwassertemperaturmessungen und Bestimmungen von Chlorgehalt und Alkalinität, sowie der von den Schiffen « Sibiriakow », « Murmanetz » und « Belucha » im Barents- und Karischen Meere ausgeführten Beobachtungen. Zum Schlusse gibt der Vf. eine Liste der vom Eisbrecher « Sedow » ausgesetzten Bojen sowie eine Tabelle an Bord des Schiffes « Murmanetz » ausgeführten Oberflächenwasserbeobachtungen.

**Wiese W. J.** - Die Fahrt des Eisbrechers « Malygin » nach Franz-Joseph Land 1931 [*De navigatione navis galcieiruptricis* «Malyghin» *ad Terram Francisci Josephi a. 1931*] (In russ. mit deutsch. Auszug.). 1 Taf., Trans. Arct. Inst., VI, 1-12. Leningrad (1933). **a - 570**

Kurze Zusammenfassung der Ergebnisse der wissenschaftlichen (meteorologischen, Oberflächenwasser-, erdmagnetischen und Eis-Beobachtungen, welche an Bord des Eisbrechers « Malygin » während seiner arktischen Touristenfahrt nach dem Franz-Joseph Land vom 19. Juli bis zum 20. August 1931 ausgeführt worden sind. Während des Aufenthaltes des Eisbrechers bei Franz-Joseph Land sind auch einige Verbesserungen der Karte des Archipels gemacht worden.

**Wiese W. J.** - Die Expedition mit dem Eisbrecher « Sibirjakov » 1932 [*De navigatione navis glacieiruptricis* « Sibirjakov » *a. 1932*]. (In Russ., deutsch. Rés.). 15 Abb., Trans. Arct. Inst., X, 5-37. Leningrad (1933). **a - 571**

Bericht über die von dem Arktischen Institute organisierte Expedition in die Nordost-Passage, deren Hauptziel war, während einer Saison die Durchfahrt von Archangelsk bis zu dem Stillen Ozean auszuführen. Obwohl die Ausführung wissenschaftlicher Arbeiten nicht als Ziel der Expedition galt, wurden an Bord des Eisbrechers verschiedene Forschungs- und Beobachtungsarbeiten unternommen, über welche in der vorliegenden Zusammenfassung auch kurz berichtet wird.

**Zoubov N. N. & Popov S. V.** - La navigation du « Knipovitsch » en automne 1932 [*De navigatione navis* « Knipovitsch » *autumno 1932*]. Izv. Gos. Geogr. Obstsch. (Bull. Soc. Géogr. Etat), LXV, 1, 72. Léningrad (1933). **a - 572**

Bref compte rendu sur l'armement et le trajet du navire océanographe « Knipovitsch », parti le 18 Août 1932 de Poljarnyj sur la côte de Mourmansk et qui a visité l'Ile Djilos, la Terre d'Alexandre (Archipel François-Joseph), l'Ile Victoria et Belaja Zemlja. Exécution des levés topographiques, de 75 stations océanographiques et de 400 mesurages de profondeur. Conclusions concernant la possibilité des prévisions de l'état des glaces dans la Mer de Barents et dans la région entre la Terre de François-Joseph et la Severnaja Zemlja, deux années à l'avance, sur la base de la température du courant du Cap Nord sur le méridien de Kola.

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**Conseil Permanent International pour l'Exploration de la Mer** - Rapport Atlantique 1932. 2-ème Partie : Hydrologie [*Relatio Atlantica 1931. Pars II*$^{a}$ *: Hydrologia*]. tabl., Rapp. Pr. - Verb. Cons. Int. Expl. Mer, LXXXVII, 17-32. Copenhague (1934). **a - 573**

Croisières et missions organisées par les Etats membres du Conseil. République Française : Croisière du navire « Estafette », mai 1932 ; Croisière du navire « Sentinelle », août 1932 ; Croisières à bord de chalutiers commerciaux. Royaume de la Grande Bretagne : Croisières périodiques du S. S. « Salpa ». Etat Libre d'Irlande : Croisières périodiques du navire « Muirchu » République Espagnole : Croisières périodiques du navire « Xauen » en février, mai, juin, août, septembre et novembre.

**Hydrographer of the British Admiralty** - Establishment of a Winter Party on the Coast of Labrador - Etablissement d'une mission d'hivernage sur la côte du Labrador - Grande Bretagne [*De instituenda Missione quadam hiemale in litoribus Labradoricis*]. (In Engl. and French). Bull. Hydrogr. Int., 7, 128-129. Monaco (1933). **a - 574**

Information on the establishment of a Base Camp at Nain of a party of three Officers and five Naval Ratings in order to undertake the work of the surveying of the Labrador Coast from a Shore Base and to shorten in this way the time necessary for H. M. S. « Challenger » to perform the survey of the region. The program of the activity of the party during the winter months.

**Norsk Polarklubb** - Polar-Årboken [*Annuarium Polare*]. ill., 168 pp., Gyldendal Norsk Forlag. Oslo (1933). **a - 575**

Premiére publication annuelle du Club Polaire Norvégien fondé en février 1933. En dehors des informations sur diverses entreprises polaires, le présent ouvrage contient douze articles environ sur différents sujets concernant l'exploration de l'Arctique par les norvégiens. Des dessins et des photographies rendent encore plus attrayante la lecture de cet ouvrage instructif poursuivant le but de la vulgarisation des connaissances sur les régions polaires.

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**A. L.** - Explorations hydrologiques effectuées par l'Institut Arctique sur le Cap Tchéljouskine, dans le Matotchkine Char et sur le Cap Dezhnev en 1932-33 [*De explorationibus hydrologicis in promunturio* Tscheljuskin, *in* Matotschkin Schar *et in promunturio* Dezhnev *peractis per Institutum Arcticum*]. (En russe). Bull. Arct. Inst., 12, 412-414. Leningrad (1933). **a - 576**

Résultats des levés hydrologiques effectués dans le but d'étudier le régime hydrologique du détroit de Vilkitzkij qui représente une des zones les plus importantes au point de vue de la navigation de la Voie Maritime du Nord. Compte rendu des sections effectuées, des déterminations de la température, de la salinité, de l'oxygène dissout, de la concentration d'ions hydrogènes, des observations sur les courants et sur les conditions des glaces.

**M. K.** - The Work of the Polar Station of the Second International Polar Year on Cape Dejnev [*De operibus peractis a Statione polari in promunturio* Dejnev, *perdurante secundo Anno polari in-*

*ternationali*]. (In Russ. & Engl.). Bull. Arct. Inst., 12, 424-425, 463-464. Leningrad (1933). **a - 577**

Short account of the work carried out by the Expedition of the Second International Polar Year at the Cap Dejnev. Considering the unfavourable condition of work and the unsuitability of Cape Dejnev for investigation, the question was raised of transferring the Station to Uellen, previously fixed in view of the work of the Polar Year.

**N. E.** - Le retour des vaisseaux de l'Expédition Nord-Orientale de 1932 [*Reditus navium velis euntium ad expeditionem nord-orientalem a. 1932 peractam pertinentium*]. (En russe). Bull. Arct. Inst., 9/10, 279-283. Léningrad (1933). **a - 578**

Après l'hivernage (v. « Bull. Arct. Inst., n° 5, 118-124, 1933) des vaisseaux faisant part de l'expédition, on renouvela la tentative de retourner à travers le détroit de Bering vers leur point de départ de l'expédition.

Description de ce voyage de retour, à la fin duquel seulement le brise-glace « Litke » èt quatre des bâtiments des six qui composaient l'expédition, ont réussi à se frayer le chemin de retour. Deux bateaux ont du s'arrêter et passer un second hiver dans l'Arctique. Compte rendu du voyage avec référence spéciale à l'état des glaces observé.

**V. E.** - Expédition scientifique et industrielle de l'Institut Arctique à la Novaja Zemlja en 1933 [*De expeditione scientiæ industriæque causa ad Novam Zemliam, a. 1933 ab Instituto Arctico peracta*]. (En russe et angl.). Bull. Arct. Inst., 9/10, 283-284 & 320. Leningrad (1933). **a - 579**

Compte rendu des résultats des travaux accomplis pendant l'expédition. Le programme concerne presque toutes les branches de l'exploitation industrielle de la Novaja Zemlja. Des observations hydrologiques et hydrobiologiques ont été effectuées, ainsi que l'exploration du littoral de l'île méridionale entre la baie de Brandt et la baie Neznaemaja.

**An.** - On Board the S/S « Tscheljuskin » [*De navigatione in navi Sovietica* « Tscheljuskin » *nomine*] (In Russ. & Engl.). Bull. Arct. Inst., 1, 3-4, 32-33. Leningrad (1934). **a - 580**

Information received by radio on the drift of the « Tscheljuskin » in the Chukchee Sea begun on October 11th, 1933 ; report of the drift received from the hydrologist of the expedition ; account of hydrological and hydrographical work carried out in the Kara, Siberian and Laptev Sea.

**An.** - Année Polaire Internationale [*Annus Polaris Internationalis*]. (En russe). Bull. Arct. Inst., 3, 135-137. Leningrad (1934). **a - 581**

Activité des stations : de la station anglaise dans le Fort Ray, des stations canadiennes à Coppermine, Minuken, Houp-Edwans, Chesterfield Inlet, de la station allemande à Arsouka (Groenland), de la station autrichienne à Jean-Mayen, de la station hollandaise à Reikjawik, de la station suisso-danoise à Snefelsjökul (Islande), de la station suédoise à Bellsund (Spitzbergen) et sur la montagne de Nordenskjöld. Participation du Chili par la construction d'une station dans le détroit de Magellan.

**An.** - Les travaux des expéditions de Knud Rasmussen en 1931 et 1932 [*De operibus peractis perdurantibus expeditionibus a* Knud Rasmussen *susceptis a. 1931 et 1932*] (En russe). Bull. Arct. Inst., 9/10, 299-302. Leningrad (1933). **a - 582**

A compléter les informations publiées dans le n° 4 du Bull. Arct. Inst. dans le présent compte rendu on donne des détails ultérieurs sur les travaux très fructueux de l'expédition de Tule sur la base des nouvelles parues dans le journal The Polar Record.

**An.** - L'expédition sur le vapeur « Tchéljuskin » [*De expeditione in navi vaporali* Tscheljuskin *nomine*] (En russe, rés. angl.). Bull. Arct. Inst., 12, 401-402, 444-445. Leningrad (1933). **a - 583**

(V. « Bull. Arct. Inst., n° 6/7, p. 161, 1933). Compte rendu de la première partie de l'expédition du « Tchéljouskine » dans la Mer de Kara. Informations sur l'état des glaces dans la deuxième décade du mois de juillet 1933. Levé de l'Ile Oujédinénijé. Passage dans la Mer Sibérienne Orientale. L'arrêt du vapeur das les glaces et sa dérive dans la région au nord du détroit de Bering.

**An.** - Oceanographic Survey in the Western Part of the North Pacific Ocean-Levés océaniques dans la partie occidentale de l'Océan Pacifique Nord [*De relevamentis oceanicis sectoris occidentalis Oceani Pacifici Nordici*] (En angl. & franç.). Bull. Hydrogr. Int., 1, 10-12. Monaco (1934). **a - 584**

Bref résumé du contenu du rapport complet des levés océaniques effectués par le H. I. J. M. S. « Mansyû » du mois d'avril 1925 au mois de mars 1928, publié dans « The Bulletin of the Hydrographic Department » de la Marine Impériale Japonaise, vol. VI, 1933.

**An.** - Exploration in the Antarctic « Discovery II » - Exploration dans l'Antarctique « Discovery II » [*De explorationibus per Antarcticam regionem navis* « Discovery II » [En angl. & franç.). Bull. Hydrogr. Int., 1, 15-16. Monaco (1934). **a - 585**

Programme et buts de l'expédition du navire explorateur britannique « Discovery II » en 1934 dans l'Antarctique.

**An.** - Oceanographical Work of the Scripps Institution. La Jolla, California, U. S. A. Travaux Océanographiques de la Scripps Institution [*De operibus oceanicis peractis a* « Scripps Institution »] (En angl. & franç.). Bull. Hydrogr. Int., 2, 30. Monaco (1934). **a - 586**

Résumé du rapport du Professeur T. Wayland Vaughan publié dans les « Transactions of the American Geophysical Union », 14th Ann. Meet., 1933, sur l'organisation et l'activité scientifique de la Scripps Institution of Oceanography.

**An.** - The Louise A. Boyd Expedition to East Greenland, 1933 [*De expeditione a* Louise A. Boyd *peracta in Groënlandiam Orient. a. 1933*]. Geogr. Rev., XXIV, 1, 134, New York (1934). **a - 587**

Brief note on the expedition sponsored by the American Geographical Society.

**An.** - Two Antarctic Expeditions [*Expeditiones duæ ad regiones Antarcticas*]. Geogr. Rev., XXIV, 1, 147-148. New York (1934). **a - 588**

Information on organization, staff, equipment and scope of the two Antarctic expeditions projected for the season 1933-34 by Mr. Lincoln Ellsworth and Rear Admiral Richard E. Byrd.

**An.** - Expédition aérienne Ellsworth à travers le continent Antarctique [*Aëroexpeditio ab* Ellsworth *suscepta per regiones antarcticas*]. 1 carte, Géogr., Terre, Air, Mer, LXI, 1, 51-53. Paris (1934). **a - 589**

Résumé du programme projeté de l'expédition en aéroplane qui a pour but de résoudre un des problèmes parmi les plus importants de la géographie de l'Antarctique, et précisément à déterminer les rapports entre la structure de l'Antarctique de l'ouest (partie inférieure du continent donnant sur le Pacifique) et celle de l'Antarctique de l'est (partie supérieure donnant surtout sur l'océan Indien).

**An.** - Les résultats de l'expédition antarctique de « Discovery » II, 1929-31 [*De resultatibus ex antarctica expeditione navis* « Discovery II » *1929-31*]. 1 carte, Izv. Gos. Gheogr. Obstsch., LXIV, 6, 539-541. Leningrad (1932). **a - 590**

Compte rendu du voyage de « Discovery II » avec référence spéciale aux Iles Sandwich Sud, dont une description géographique et cartographique est contenue dans le texte.

**An.** - A New Antarctic Expedition [*Agitur de nova quadam expeditione ad regiones Antarcticas*]. Nature, CXXXIII, 3359, 409-410. London (1934). **a - 591**

On an expedition which is to leave England in September for the western side of Graham Land, under the leadership of Mr. J. R. Rymill, of the recent Watkins Greenland expedition.

**An.** - Arctic Regions: Svalbard, Franz-Joseph's Land, and Russian Arctic Regions [*De regionibus Arcticis: idest de* Svalbard, *Terra Francisci Josephi, regionibusque Arcticis ad Russiam pertinentibus*]. Pol. Rec., 7, 4-32. Cambridge (1934). **a - 592**

Norwegian Fisheries Arctic Expeditions, 1931-33. Soviet Union Expeditions, 1931-32. Soviet Union Expeditions, 1933. Soviet Polar Year Stations, 1932-33. Oxford University Arctic Expedition, Spitsbergen, 1933. Wintering of Hunters in Spitsbergen, 1933-34. Norwegian Polar Year Stations, 1932-33. Polish Polar Year Expedition, Bear Island, 1932-33. Swedish Polar Year Stations in Spitsbergen, 1932-33. British Polar Year Station, Tromsö, 1932-33.

**An.** - Investigation of the Caribbean Region [*De inquisitionibus in regionem Caraibicam*]. Science LXXVIII, 1987. (1933). **a - 593**

About arrangements made between Yale University and the Woods Hole Oceanographic Institution for continuation of marine investigations in the Central American seas.

**An.** - The Templeton Crocker Expedition to the Solomon Islands [*De expeditione* Templeton *ad Insulas* Solomon]. Science, LXXIX, 2050, 344-345. New York (1934). **a - 594**

Brief résumé of the results of the expedition with the auxiliary schooner « Zuca ».

**An.** - The Alaskan Expedition of the Smithsonian Institution [*De expeditione in Alaskam ab Institutione Smithsoniana peracta*]. Science, LXXIX, 2052, 10-11. New York (1934). **a - 595**

Dr. Hrdlicka of the Smithsonian Institution and some young volunteeers are making an exploration of an Alaskan island where important remains of an ancient people are contained.

# GEOLOGIA MARIS.

## Geologia generalis bacini oceanici - Marium origo - Vestigia veterum marium.

**Aller G. D.** - Exploration géologique de la Station de l'Institut Arctique sur le Cap Tchéljouskine [*Exploratio geologica stationis ad Institutum Arcticum pertinentis in promunturio* Tscheljuskin]. (En russe). Bull. Arct. Inst., 12, 411-412. Leningrad (1933). **a - 596**

Résultats du levé géologique de la Péninsule de Tchéljouskine effectué en 1932/33 sur une échelle de 10.000. Le levé a permis de corriger et de compléter la carte de la péninsule, ainsi que de marquer toute une série d'îles et de baies qui ne figurent pas sur les cartes existantes.

**Avellino G.** - Faccia della Terra [*Terræ Geologia Generalis*]. 15 fig., 232 pp., Rocco Bacci. Pietrasanta (1934). **a - 597**

Trattatello di geologia generale con intenti di volgarizzazione.

**Bebiano J.** - A geologia do Arquipélago de Cabo Verde [*De geologia in archipelago* Cabo Verde]. Nombr. fig. et cartes, croquis, coupes et phot., 277 pp., Separata das Comunicaçoẽs dos Serviços Geológicos de Portugal, XVIII, Oficina Grafica L.da. Lisboa (1932). **a - 598**

**Bemmelen (van) R. W.** - Die neogene Struktur des Malayischen Archipels nach der Undationstheorie [*De structura neogena archipelagi Malesiæ ex theoria undationis*]. Proc. Kon. Akad v. Wet., XXXV, 10. Amsterdam (1933). **a - 599**

**Bemmelen (van) R. W.** - Versuch einer geotektonischen Analyse Australiens und des Südwestpazifiks nach der Undationstheorie [*De analisi geotectonica Australiæ et Oceani Pacifici Meridionalis ex theoria undationis*]. Proc. Kon. Akad. v. Wet., XXXVI, 740. Amsterdam (1933). **a - 600**

**Chubb L. J.** - Geology of Galapagos, Cocas, and Easter Islands [*De geologia in insulis* Galapagos, Cocas *et in Insula* Easter *nomine*]. Bernice P. Bishop Mus. Bull. 110. Honolulu (1933). **a - 601**

Results of the investigations of the St. George Expedition of 1924-25. Three phases in the building of the Galapagos: the great volcanoes, minor eruptions producing the enormous number of parasitic cones and the third phase still in progress, represented by emission of lava from fissures in the flanks of the major volcanoes. Structural resemblance between the Galapagos and the Marquesas. Comment on the absence of coral reefs about the Galapagos.

**Cipolla Francesco** - Singolari forme topografiche del quaternario siciliano [*De peculiari topographia ætatis quaternariæ Siculæ*] (Le montagnole tra Villabate e Bagheria). 3 fig., 2 tav., Boll. Assoc. Miner. Sicil., 5/8, 32-42. Palermo (1932). **a - 602**

L'A. si propone di illustrare alcuni interessanti rilievi della Sicilia, tipicamente modellati dai mari dei vari livelli del quaternario. In questa nota si occupa solo degli speroni terrazzati dei monti a SE della città di Palermo aventi relazione più o meno palese, con altre collinette scolpite a cupola, a cono o a calotta dalla stessa azione marina.

**Combaluzier Ch.** - Le Miocène de la Basse-Provence [*De miocenica ætate in Provincia inferiore*]. 26 fig., 4 cartes h. t., 1 carte pliante, Bull. Serv. Carte géolog. de France, XXXV, 182, 1-183. Paris (1932). **a - 603**

Étude de détails contenant une revision de la classification des étages du système miocène et une description de la surface de base du Miocène et de la nature des mouvements post-miocènes. Les mouvements des eaux de la mer et les mouvements tectoniques qui ont eu lieu aux différents moments de l'époque miocène que l'A. illustre sur la base de l'étude des surface d'aplanissement éogènes des replats ou plateaux d'érosion de la Basse-Provence.

**Cozzaglio Arturo** - Note illustrative della Carta Geologica delle Tre Venezie. Fogli : Peschiera e Mantova. Parte I : Geologia. Parte II : Idrografia [*Charta geologica regionis italicæ* Tre Venezie. *Folia :* Peschiera *et* Mantova : *Pars Ia : Geologia. Pars IIa : Hydrographia*]. Ministero dei Lavori Pubblici - Ufficio Idrografico del R. Magistrato alle Acque - Sez. Geolog., 6 + 3 tav. e ill., 130 + 69 pp., II, Soc. Coop. Tipogr. Padova (1933). **a - 604**

**De La Rüe Aubert E.** - Esquisse géologique des Iles Saint-Pierre et Miquelon [*De geologia in insulis* Saint-Pierre *et* Miquelon]. Bull. Mus. Nat. Hist. Natur., V, Série 2e, 1. Paris (1933). **a - 605**

Résultat d'un travail de six semaines exécuté par l'A. pendant un voyage dans cet archipel. L'A. annonce la nécessité d'entreprendre d'autres recherches pendant le 1933 et de modifier certaines des vues exposées aujourd'hui.

**Devigne R.** - L'Atlantide [*De Atlantide*]. Les oeuvres réprésentatives. Paris (1933). **a - 606**

**Drilhon-Courtois** - Y a-t-il eu d'autres Atlantides ? [*Inquisitiones in Atlantidem*]. 2 cartes, Bull. Soc. Océanogr. France, 75, 1313-1319, Paris (1934). **a - 607**

Après avoir relevé que « si l'on jette les yeux sur la carte du Pacifique, on demeure surpris du nombre considérable de points, îles, îlots ou récifs, à côté de l'emplacement desquels on trouve les deux lettres E. D., symboles abréviatives de existence douteuse, et des espaces situés en dehors des grandes lignes de navigation comme aussi en dehors de la route des voiliers qu'on peut à juste titre nommer les déserts du Pacifique », l'A. démontre que l'établissement d'une carte géologique de cet océan serait encore plus ardu que celui de sa carte géographique et donne un aperçu très bref des déformations, à la suite desquelles s'est établie la figure actuelle du Pacifique (à suivre).

**Edemsky M. B.** - The Kanin Geological Expedition of the Institute for the Scientific Exploration of the North and the Academy of Sciences of the U. S. S. R. in 1930 [*De expeditione geologica ad pæninsulam* Kanin *per Institutum regionibus nordicis explorandis et Academiam Scientiarum ad Rempublicam Sovieticam pertinentes a. 1930*] (In Russ., Engl. Summ.). 18 figs., Trans. Arct. Inst., XII, 117-182. Leningrad (1933). **a - 608**

Account of exploration and surveying work performed on the eastern coast of the Kanin Peninsula between the Vijas River, Chisha River and Cape Ludovatyj. Geological structure of the coast visited. The fauna contained in the limestone. The primary formations emerging at ebb-tide. The origin and period of the formation of different strata observed.

**Feruglio Egidio** - La glaciazione attuale, le fasi glaciali quaternarie e i loro rapporti coi terrazzi marini nella Patagonia [*De hodierna glaciatione. Phases glaciales quaternariæ earumque correlationes cum solariis marinis in Patagonia*]. 10 fig., Boll. Comit. Glac. It., 13, 59-90. Torino (1933). **a - 609**

Dopo avere osservato che l'attuale glaciazione della Cordigliera patagonica, per la sua intensità ed estensione, offre somiglianze con quella alpina durante le fasi glaciali, l'A. accenna come le morene che in più cerchie concentriche circondano ad E. i laghi landini si possano riunire in due sistemi, mentre i terrazzi costieri appartengono a 5 ordini distinti, di cui il primo e più elevato (m. 165-195) è probabilmente anteriore al Quaternario. Un quadro stratigrafico riassume le successive fasi ed oscillazioni glaciali finora riconosciute in Patagonia e le loro probabili corrispondenze coi depositi costieri della stessa regione.

**Feruglio Egidio** - I terrazzi marini della Patagonia [*Solaria marina in Patagonia*]. (Bibl.). 25 fig., 11 tav. f. t., Giorn. di Geol. (Ann. R. Museo di Bologna), 2 Serie, VIII bis, 3-288. Bologna (1933). **a - 610**

L'A. divide la presente trattazione in quattro parti, di cui la prima contiene alcune notizie d'ordine generale e un riassunto degli studi eseguiti dai precedenti osservatori. La seconda parte consiste in una descrizione dei singoli giacimenti, in gran parte nuovi ed esposti in ordine geografico da nord a sud. La terza, più importante, comprende un esame circonstanziato della costituzione e posizione dei diversi gruppi o sistemi di terrazzi e la discussione delle loro faune, con le relative conclusioni generali. L'ultima parte contiene un breve esame della serie pampiana, con speciale riguardo agli orizzonti marini intercalativi, dei quali l'A. ha unito anche un elenco dei fossili raccolti dai vari autori e da lui stesso ; e infine vi è un riassunto delle osservazioni finora eseguite sui terrazzi costieri del Cile e del Perù da un lato, dell'Uruguay e del Brasile dall'altro e un raffronto con la successione dei terrazzi costieri di altre parti della Terra.

**Fontana Zanco Fanny** - Nuove osservazioni sul Piano Tirrenico nei dintorni di Cagliari [*Observationes novæ Plani Tyrrhenici apud Caralim*]. Rend. del Sem. di Sc., III, 3, 116-125. Cagliari (1933). **a - 611**

L'esistenza del Quaternario marino in Sardegna è stata accertata fin dalla metà del secolo scorso, quando il Lamarmora descrisse una serie di lembi di arenarie sicuramente marine (« gres quaternario »). L'autore ha ripreso in esame, dal punto di vista stratigrafico, qualcuno dei giacimenti dei dintorni Cagliari, e vi ha raccolto fossili in modo da potere distinguere i depositi veramente postpliocenici da quelli più recenti, estendendo le ricerche anche a qualche località attigua, dove appariva probabile l'esistenza di affioramenti quaternari.

**Freyberg (v.) B.** - Das Eindringen des kambrischen Meeres in Schweden [*De mari cambriano in Suetia*]. 4 Abb., Nat. u. Mus., LXIII, 4, 113-117. Frankfurt a. M. (1933). **a - 612**

Die bei dem schwedischen Tafelberg « Kinnekulle » beobachteten kambrischen Ablagerungen geben einen deutlichen Beweis dafür, dass die Transgression sehr geschwindig vor sich gegangen hat ohne das unterliegende Festland zu zerstören. Im Gegenteil hat das Meer neue Sedimente dahin geführt.

**George P.** - Les surfaces d'aplanissement dans la région du Bas-Rhône. Rôle topographique. Date. Représentation cartographique [*De superficie æquata in regione inferiore fluminis Rhodani. Momentum topographicum. Tempus. Repræsentatio carthographica*]. 4 fig., Ann. de Géogr., 239, 477-488. Paris (1933). **a - 613**

Après avoir relevé la complexité des plissements que l'on peut observer dans la Basse-Provence, l'A. considère séparément les surfaces prémiocènes, la nature de l'aplanissement prémiocène, les dégradations des surfaces prémiocènes, les niveaux cycliques pliocènes, les formes prémiocènes et les formes pliocènes. Il conclut en donnant un résumé de l'histoire morphologique de la basse vallée du Rhône, en illustrant les mouvements d'avancement et de recul de la mer et donne enfin une esquisse tracée sur le 1 : 200.000 d'une carte morphologique de la région qu'il a étudiée.

**Gorbatsky G. W.** - Buried Glaciers in Cross Bay, Novaja Zemlja [*Glaciaria subterranea (Fossilia) in Baja* Krestovaja, Novaja Zemlja] (In Russ., Engl. Summ.). 3 figs., 2 tabl., 1 map., Arctica, 1, 41-65. Leningrad (1933). **a - 614**

After a brief account of previous observations referring to the buried glaciers in Cross Bay, the author communicates the results of his own exploration and work carried out during the expedition to Novaja Zemlja sent out by the Arctic Institute in 1931. Distribution, morphology and formation of the fossil glaciers on the strandflat of Cross Bay. Orientation of

the glaciers. Oscillation of the surface of the sea during the glaciation periods which succeeded in the region. Variations in the climate of the Novaja Zemlja. Results of the survey on the actual relief of the Cross Bay.

**Hazzard John C. & Crickmay Colin H.** - Notes on the Cambrian Rocks of the Eastern Mohave Desert, California with a Paleontological Report [*De saxis ac rupibus cambricis in desertica regione oriental.* Mohave *nomine* (*in California*). *Relatio adiungitur palaeontologica*]. 1 fig., 1 pl., 1 map., Univ. Calif. Publ., Bull. Dpt. Geol. Sc., XXIII, 2, 57-80. Berkeley, Ca. (1933). **a - 615**

This report is based on studies of the Cambrian rocks of the Marble, Ship and Providence mountains in the eastern Mohave Desert region, California. The section and detailed rock description pertain principally to the area of the Marble Mountains. The collection of fossils found in the Lower and Middle Cambrian rocks of the area are described by Dr. Colin Crickmay who has written the report on the paleontology. Of the described fossils, one species, *Paedeumias mohavensis* sp. n., is new to science.

**Hess Harry H.** - The Gravity Measuring Cruise of the U. S. Submarine S-48 : Interpretation of Geological and Geophysical Observations [*Navigatio gravimetrica navis submergibilis S-48 ad Classem Americanam pertinentis. Interpretatio observationum geologicarum et geophysicarum*]. 16 figs., 1 map., U. S. Hydrogr. Off. Navy-Princeton Gravity-Exped. West Indies, 1932, 27-54. Washington, D. C. (1933). **a - 616**

General statement. Geological interpretation of gravity anomalies. The East Indian strip of strongly negative anomalies. Scientific results of the expedition. Bartlett Trough region. The Bahama region. Summary and conclusion.

**Hume W. F.** - Geology of Egypt, Volume II. Part I [*De geologia in Aegypto. Vol. II.um Pars I.a*]. 96 pl., xv + 297 + 124 pp., Govmt. Press. Cairo (1934). **a - 617**

The fundamental pre-Cambrian rocks of Egypt and the Sudan, I. The metamorphic rocks. Book magnificently illustrated, forming the first part of the second volume. The first volume dealing with surface features and their determining causes published in 1925.

**Isachsen Fridtjov** - Terrassemalinger i Nord-Odal [*De mensuris in solariis marinis regionis Norvegicæ* Nord-Odal]. 16 fig., Norsk Geogr. Tidsskr., V, 1, 33-52. Oslo (1934). **a - 618**

L'A. esamina il diagramma di differenti livelli di Tanner basato sulla teoria di trasgressione (marina) della Fennoskandia ammessa da parecchi ricercatori nordici, concludendo che non è ancora provato il parallelismo fra le terrazze quaternarie della zona di Oslo e quelle della Norvegia occidentale e settentrionale. Analisi delle terrazze del Nord-Odal sotto e sopra il livello marino.

**Knight Brookes J.** - A Salt-Marsh Study [*De palude quadam salsa*]. 5 figs., Amer. Journ. Sc., XXVIII, 165, 161-181. New Haven, Conn. (1934). **a - 619**

The study of a salt marsh on the shore of Long Island at Killam's Point near New Haven Connecticut revealed a section preserving the hitherto unrecorded early stages of a New England salt marsh developed in accordance with Shaler's classic theory, coupled with later stages developed in accordance with the theory first proposed by Mudge and later reproposed and elaborated by Davis. Detailed description of the marsh and its setting. Brief discussion of the fauna (fossil within the marsh). List of species recorded. Certain aspects of the origin of coastal marshes of the New England type are briefly discussed.

**Krenkel E.** - Geologie Afrikas. (Geologie der Erde) [*De geologia in Africa*]. 2 pl., 1003 + 1304 pp., III, 1, Gebrüder Borntraeger. Berlin (1934). **a - 620**

**Loczy (v.) L.** - Zur Geologie des Nordboengkoes und des Bongkagebietes von Ostcelebes [*De geologia regionum* Boengkoe *septentrionalium et regionis* Bongka *in* Celebes *orientalibus*] (In ungar., u. dtsch.). 7 Abb., 2 Kart.-Beil. Földtani Közlöny (Geol. Mitt.), LXII, 1/12, 130-164. Budapest (1933). **a - 621**

Nach stratigraphischen und tektonischen Gesichtspunkten hat der Vf. das durchforschte Gebiet in 5 Zonen eingeteilt, welche hier charakterisiert werden. Die paläogeographische Zusammengehörigkeit des Ostarmes von Celebes mit dem Bogen der Inselreihe : Misol, Boeroe, Ceram und Timor wird bestätigt. Ueberblick der hauptsächlichen geologischen Ablagerungen. Fossilien.

**Menjschikov N.** - Work of the Geomorphological Party of the Anadyr Chukchee Expedition of the Arctic Institute in 1931-1933 [*De operibus peractis a Sectione Geomorphologica, perdurante expeditione ad regiones* Anadyr *et* Tschoukhotskaja *ab Instituto Arctico suscepta a. 1931-1933*]. Bull. Arct. Inst., 1, 40-42. Leningrad (1934). **a - 622**

English translation of a paper published in Russian in nº 12, 1933 of the « Bulletin », pp. 416-417.

**Meyerhof Howard A.** - Geology of Puerto Rico [*De Geologia in* Puerto Rico]. Maps, diagrs., ills., Monogr. Univ. Puerto Rico, Ser. B, 1, 306 pp., Rio Piedras, P. R. (1933). **a - 623**

Grown out of a series of lectures given to the University of Puerto Rico, 1931-1932 : geological background, geological history (volcanic core, ancient mountains, coastal plain, present form), geological materials.

**Minucci Enzo** - Il mare pliocenico nella Campania [*Mare pliocenicum in Campania*]. Mem. Geol. e Geogr. di Giotto Dainelli, 2 carte f. t., III, 229-346. Firenze (1932-33). **a - 624**

Contributo regionale alla conoscenza delle condizioni del mare pliocenico e quaternario in Italia. La regione considerata comprende gran parte della Campania tra i corsi del Volturno e del Sele, nonchè le isole prossime alla terraferma, Ischia e Capri. Nella zona costiera di questa regione hanno grande sviluppo i depositi quaternari marini con i quali sono commisti elementi o depositi vulcanici. L'esame delle faune plioceniche e quaternarie fu fatto al solo scopo di indagarne le originarie condizioni di vita, pertanto furono distinte le seguenti zone batimetriche . litorale, sino a 60 m. di profondità, suddivisa in tre orizzonti (superiore, medio e inferiore), sublitorale, fra 60 e 200 m., profonda, oltre 200 m. di profondità. Il presente studio, non è limitato solo all'esame dei terreni marini pliocenici, ma si estende anche alla considerazione dei terreni marini posteriori al Pliocene. Essi hanno dato motivo di trattare, a proposito della regione qui considerata, dei movimenti del suolo, rispetto al livello marino, succedutisi dopo il Pliocene a variare la configurazione del mare quaternario nella Campania. Il materiale considerato comprende gli elementi offerti dalle perforazioni eseguite nel sottosuolo Campano.

**Obroutchev Serge** - Sur l'orographie de l'Ile de Vrangel [*De orographia in insula* Vrangel] (En russe, rés. en espéranto). Arctica, 1, 150-156. Leningrad (1933). **a - 625**

Résultats des observations géomorphologiques exécutées en été 1932 au cours d'un vol de 24 heures effectué dans le but d'approvisionner les colons établis sur l'île qui ont été privés par les glaces de toute communication avec la terre ferme. Quelques corrections de la carte de Berry et considérations sur l'origine de l'île et sur le mouvement des glaces de la mer environnante.

**Obroutchev S.** - Recherches géologiques organisées par l'Institut Arctique sur le littoral polaire de la circonscription de Tchoukhotsk en 1933-34 [*Investigationes geologicæ ab Instituto Arctico susceptæ in litoribus polaribus apud* Tschukhotsk *a. 1933-34*] (En russe). Bull. Arct. Inst., 12, 414-415. Leningrad (1933). **a - 626**

Compte rendu des travaux exécutés en 1933 et du programme des travaux projetés pour 1934, pour l'étude géologique et cartographique de la région entre la chaîne d'Anadyr et le littoral de la Mer Polaire entre la Baie Koljutschinskaja et le Cap Severnyj.

**Ourvantzev N. N.** - Un télégramme de la Terre du Nord [*De morphologia et geologia Terræ Nordicæ*] (En russe). Izv. Gosoud. Geogr. Obstsch., LXIX, 1, 100-102. Leningrad (1932). **a - 627**

Bref résumé des résultats des travaux de recherches de l'expédition de l'Institut Arctique : morphologie et géologie de l'archipel qui se compose de trois grandes îles et d'un certain nombre de petites îles réunies en groupes ou disséminées isolément; description géologique, morphologique, hydrologique, tectonique, et glaciologique des trois îles principales.

**Pia Julius** - Die rezenten Kalksteine [*De recentioribus stratibus calcii*]. 1 Ausschlagtab., 4 Taf., 22 Abb., 420 S., (Tschermaks Mineral. Petrogr. Mitt. Ergänzungsb.). Akad. Verlagsges. m. b. H. Leipzig (1933). **a - 628**

I) Abiogene Kalke : A. Abiogene Hartkalke in Salzseen ; B. Abiogene Schlammkalke : Chemische Kalkfällung im Meer : *a*) Die Löslichkeit des Calciumcarbonates im Meerwasser ; *b*) Die strukturlosen dichten Meereskalke ; *c*) Meereskundliche Beobachtungen und Berechnungen (Chemische Verhältnisse des Meeres und der Seen, gelöste feste Stoffe, Gehalt des Meeres an freiem Kohlendioxyd, Verteilung des Kohlendioxyds zwischen Atmosphäre und Meer, Quelle für den Kohlendioxydgehalt, Ostsee, andere Binnenmeere, Calciumcarbonatsättigung, Bildung von Kalkbänken, chemisch gefällter Meereskalk, Kalkauflösung durch das Meereswasser ; *d*) Ansichten einiger weiteren Verfasser. II) Physiologische Kalke : A. Physiologische (?) Festkalke im Meer: Der Pelagosit. D. Physiologische Schlammkalke ; *d*) Seekreideähnliche Kalkabsätze in Salzseen. Physiologische Schlammkalke des Meeres : Kalkige Tiefensedimente des Schwarzen Meeres ; III) Organische Kalke : A. Organische Festkalke : Ueber meerische Riffkalke, Lebensbedingungen der Riffkorallen : *a*) Die allgemeinen Bedingungen der Atollbildung ; *b*) Die Beteiligung der Algen an der Bildung der Korallenriffe. (Nur die sich auf Meereskunde beziehenden Kapitel sind hier angegeben).

**Rovereto G. & Airoldi M.** - Note geomorfologiche e petrografiche sull'Isola di Capraia [*Notæ geomorphologicæ et petrographicæ in insula* Capraia] 5 fig., 3 tav. f. t. e una carta. Mem. R. Acc. Naz. Lincei - Rend. Cl. Sc. Fis., Mat. e Nat., serie VI, v. V, fasc. IX, 319-410. Roma (1934). **a - 629**

Nella prima parte del presente studio, il Rovereto illustra le condizioni geomorfologiche dell'isola di Capraia, soffermandosi all'esame del terreno e del clima, a considerazioni sulle condizioni del vulcanismo antico e all'età dell'isola. Dà alcuni cenni sulla Tirrenide, sul Vulcanesimo quaternario, sulle forme del complesso Monti e Vadi, sui colli e il laghetto dello Stagnone, e sulla Costa marina. Nella seconda parte, l'Airoldi fa l'illustrazione petrografica strutturale e genetica dell'isola, dividendo lo studio delle rocce per località e facendo precedere la descrizione delle condizioni di giacitura.

**Rutten L.** - Resultados de la investigación geológica de la Misión cientifica holandesa en Cuba [*Resultatus ex investigatione geologica missionis scientificæ Hollandicæ in Insula Cuba*]. Rev. Soc. Geogr. de Cuba, Año VI, 2/3, La Habana (1933). **a - 630**

**Samuelsen S.** - Breranddannelser på Modum og i Snarumsdalen [*De formatione solariorum* (*ad ætatem glacialem pertinentium*) *in* Modum *et Valle* Smarum]. 16 figs., Norsk Geogr. Tidsskr., (IV h. 6), 2, 367-391. Oslo (1933). **a - 631**

Short review of preceding works on this subject. Geological formation. Topography : glacial, glacio-fluvial and marine deposits. The different layers of earth. Résumé on the deposits of Hallingsdalsbreen south of Gulsvik. Bibliography.

**Schütte Heinrich** - Die Wurten als Urkunden der Küstengeschichte. I. Die Wurten, ihr Bau und Alter. II. Was lehrt uns der Untergrund und der Aufbau der Wurten ? [*De sabulosis cumulis* « Wurten » *nomine quæ testantur historiam litorum Maris Nordici*]. 17 Abb., Nat. u. Mus. 224-237, LXIII, 6/7, 181-192. Frankfurt a. M. (1933). **a - 632**

Beschreibung der sog. Wurten, der kleinen Marsch-Eilande im nordfriesischen Wattenmeer : die Besiedlung, der zerstörende Einfluss des Meeres und der Kampf der Einwohner dagegen. An Hand geschichtlicher Urkunde, Ausgrabungen und Studium der geologischen Schichten der Wurten ist es dem Vf. gelungen, auf die Hebung und Senkung der Nordseeküste während einiger Jahrtausende Licht zu werfen.

**Schwarz Albert** - Meerische Gesteinsbildung I. [*De saxis et rupibus in mari. Quomodo formantur*]. 20 Abb. a. T., Senckenbergiana, XV, 1/2, 69-160. Frankfurt a. M. (1933). **a - 633**

Mit meerischer Gesteinsbildung versteht der Vf. die unter Mitwirkung meerischer Kräfte erfolgende Bildung von Gesteinen, nicht etwa eine nur im engsten Sinne meerische, z. B. innerhalb des Meeres erfolgende. 1) Umlagerungs- und Gesteinsbildungsvorgänge an einem Gezeitenmeer (Nordsee) : A. Frachtung, die Tendenz der Meerestätigkeit ; Umlagerung das Ergebnis der Meerestätigkeit ; B. Ursache, Bedingungen und Ort der frachtenden Meerestätigkeit ; C. Die Bedeutung der Mittelhochwasserlinie für die frachtende Meerestätigkeit. D. Die vorwiegend frachtende und ablagernde Meerestätigkeit oberhalb M. H. W. ; E. Die umlagernde Meerestätigkeit unterhalb M. H. W. ; F. Meerische Abtragungsvorgänge ; G. Die Umlagerungsvorgänge und Ereignisse im nordfriesischen Meeresgebiet. Schriftenverzeichnis.

**Sorrentino Stefano** - Alcune caratteristiche di geo-morfologia del versante adriatico dal fiume Potenza al Pescara [*De geomorphologia a flumine* Potenza *ad flumen* Pescara]. 8 fig., Boll. Soc. dei Nat. in Napoli, XLV, 321-335. Napoli (1933). **a - 634**

Si espone in un esame generale, la morfologia dei terreni neogenici del versante adriatico tra i fiumi Potenza e Pescara, facendo seguire alcune considerazioni sullo sviluppo degli abitati. In appendice è descritta la cattura avvenuta fra i due torrenti Fiastrone-Fiastra.

**Sorrentino Stefano** - Storia geologica del Mediterraneo Orientale (Mare Egeo) [*Historia geologica Maris Mediterranei Orientalis* (*Mare Aegæum*)]. Riv. di Fis., Mat. e Sc. Nat., 5, 229-234. Napoli (1934). **a - 635**

Si esamina lo sviluppo dei principali terreni geologici del Mediterraneo Orientale e le relazioni tettoniche esistenti fra essi.

**Vardanjantz L. A.** - Sur l'histoire de la Mer Noire [*De historia Pontica*] (En russe). Izvest. Gosoud. Ghéogr. Obstsch. (Bull. Soc. Géogr.), LXV, 4, 335-339. Leningrad (1933). **a - 636**

Rapport à l'Académie des Sciences à la séance du 25 février 1933. Dans son exposé, l'A. après avoir cité quelques passages de l'article de A. D. Arkhangheljskij « Court résumé de l'histoire géologique de la Mer Noire, 1932 », démontre qu'il est nécessaire pour comprendre les contradictions apparentes

dans le texte du Prof. Arkhangheljskij, de considérer l'adoucissement répété du bassin de la Mer Noire en son rapport génétique avec les soulèvements de ses parties périphériques et avec les glaciations, ainsi qu'en relation avec les variations du climat qui se sont manifestées par suite des procès susmentionnès. C'est à cette interprétation de l'histoire de la Mer Noire dans son ensemble qui constitue le contenu de la note de M. Vardanjantz.

**Vinassa De Regny Paolo** - La carta geologica d'Italia [*Charta geologica Italiæ*]. Ric. Scient., I, 3, 140-144. Roma (1933). **a - 637**

Dopo aver fatto la storia dell'ufficio per il rilievo della carta geologica d'Italia, annesso al Corpo reale delle Miniere, creato in seguito al decreto del 15 giugno 1873, espone le direttive a cui dovrebbe ispirarsi l'ufficio per un logico e coordinato lavoro.

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**Fédération des Sociétés Francaises de Sciences Naturelles** - Bibliographie des Sciences géologiques [*Bibliographia geologica*]. 432 pp., 2.me sér. II, Société Géologique de France. Paris (1931). **a - 638**

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**An.** - Geological Work on the Station of the Arctic Institute at Cape Cheljuskin [*De operibus geologicis peractis a Statione Instituti Arctici in Promunturio* Tscheljuskin]. Bull. Arct. Inst., 1, 39-40. Leningrad (1934). **a - 639**

Account of the geological survey of the Cheljuskin Peninsula on the scale 1 : 500.000 embracing an area of about 15 000 sq. km. The absence of a precise map hampered the geological work, and the staff of the expedition has been obliged to carry out also a topographical, partly instrumental, partly visual, survey as a result of which the map of the Cheljuskin Peninsula has been corrected and completed, a series of islands and bays inserted, as well as essential correction in the map of the relief of the interior of the land made.

**An.** - Sur les recherches de l'Atlantide dans la Tunisie Centrale [*Inquisitiones de Atlantide in regione Tunetana centrali*] (En russe). Izv. Gos. Gheogr. Obstsch., LXIV, 5/6, 411-412. Leningrad (1932). **a - 640**

Quelques observations au sujet de l'article du Dr. A. Herrmann, « A la recherche de l'Atlantide en Tunisie méridionale », publié dans le « Bulletin de la Société Royale Belge de Géographie », 3/4, 1931, avec référence spéciale aux transgressions de l'océan qui occupait dans les temps préhistoriques l'emplacement de la région de Schott-el-Djéride.

## Litora et orae maritimae - Erosiones.

**Albani Dina** - Indagine preventiva sulle recenti variazioni della linea di spiaggia delle coste italiane. I : Ricerche sulle variazioni delle spiagge italiane [*Exploratio prior recentiorum variationum lineæ orariæ litorum Italicorum. I. Investigationes in variationes orarum Italicarum*]. Consiglio Nazionale delle Ricerche - Comitato Nazionale per la Geografia (Bibl.). 95 pp., 4 tav. f. t., Tip. Anonima Romana Editoriale. Roma (1933). **a - 641**

La presente indagine preventiva ha lo scopo di presentare un quadro sommario dell'estensione del fenomeno stesso e delle sue fasi, prospettando le varie ipotesi finora avanzate per spiegare i ritiri dei singoli tratti di spiaggia. In appendice a questo studio è pubblicata la Guida questionario per le ricerche locali a cura del prof. Toniolo.

**Barton Donald C. & Hickey Maude** - The Continental Margin at Texas-Louisiana Gulf Coast [*De margine continentis præter litora Sinus* Texas-Louisiana]. 4 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, Append. A. Rep : Comm. Ocean Basins, 16-20. Washington, D. C. (1933). **a - 642**

The present report gives the results of some preliminary calculations concerning the three hypothesis as to the cause of the really extensive gravity-minimum of considerable amplitude lying axially along the Gulf Coast, suggested by the senior writer a year ago (D. C. Barton : « Torsion-balance surveys in Southwest Louisiana and Southeast Texas », Trans. Amer. Geoph. Union, 13th Ann. Meet., 40-42, 1932).

**Carter Neal M.** - Fiords and Fiord Formation [*De fiordis. Quomodo formantur*]. Ann. Rep. Biol. Board Canada, 78-79, 1932. Ottawa (1933). **a - 643**

Results of systematic soundings in Jervis inlet, Toba inlet and Princess Louisa inlet, made in order to investigate the unusual depths of this area of the coastal waters. These three depressions lie some thousand feet below the bounding thresholds. Evidence of almost corrosive glaciation on the Cretaceous granito-diorite threshold, which corroborates the glacial origin of Princess Louisa and Jervis inlets in particular.

**Castaldi Francesco** - Forme di erosione eolica nei Campi Flegrei. I. Erosioni nei tufi di Porto Miseno [*De erosione eolica in* Campi Flegrei. *I. Erosiones in tophis ad* Porto Miseno *pertinentibus*]. Riv. di Fis., Mat. e Sc. Nat., a. VIII, serie II, 6, 403-418. Napoli (1934). **a - 644**

L'autore si occupa, in una accurata indagine, delle forme di erosione eolica, che hanno contribuito, nei Campi Flegrei, alla disgregazione di alcuni apparati eruttivi ; ha prescelto, quale inizio, il cratere di Porto Miseno, il centrale dei tre apparati vulcanici situati all'estremo limite del golfo di Napoli.

**Caubet Paul** - Les plages de galets et de sable à l'Ile de la Réunion [*De oris maritimis saxis ac sabula formatis in insula Reunionis*]. 1 carte, Bull. Soc. Océanogr. France, 74, 1299-1303. Paris (1933). **a - 645**

Morphologie côtière de La Réunion, dans laquelle les côtes basses dominent : I. Les trois types de plages réunionnaises : A) Les plages de galets ; B) les plages de sable noir ; C) les plages de sable blanc. II. L'influence des plages de galets et de sable sur la vie réunionnaise. Leur triple utilisation : stations balnéaires, fabrication de la chaux, production de nitrates.

**Charles M. Fl.** - Observations sur la morphologie des côtes de la Mer Noire dans la région houillère de Zongouldak et environs (Turquie) [*Observationes in morphologiam litorum Ponti Euxini in regione carbonifera* Zongouldak *et propinquitatibus*]. 3 fig., Bull. Soc. Océanogr. France, 71, 1257-1261, 72, 1275-1276. Paris (1933). **a - 646**

Généralités : Etymologie de l'expression Mer Noire. Régime des brusques changements des conditions météorologiques sur la Mer Noire. Régime régulier des tempêtes de la Mer Noire. Description des trois ports qui servent de bons abris sur la partie de la côte qui va d'Alaplı jusqu'à Chakras, Héraclée, Amsra et Zongouldak. Développement et morphologie du littoral dans les zones qui s'étendent entre les ports susmentionnés, surtout en ce qui concerne leurs relations avec les phénomènes géologiques.

**Dainelli Giotto** - Memorie Geologiche e Geografiche [*Memoriæ geologicæ et geographicæ*]. 86 fig., 2 carte f. t., III, 347 pp. Tip. Mariano Ricci R. Ist. Geologico Edit. Firenze (1932-1933). **a - 647**

Il presente volume contiene le seguenti memorie : 1) Giotto Dainelli. Studi sull'Arno a Firenze ; 2) Ardito Desio. Osservazioni geografiche e geologiche compiute dalla spedizione della

Reale Accademia d'Italia nel Deserto Libico e nel Fezzàn orientale (1931); 3) Giuseppe Caraci. Osservazioni geologiche e morfologiche in Bulgaria (Il litorale bulgaro sul Mar Nero e le sue formazioni lacustri e lagunari); 4) Ardito Desio. Nuovi dati sulla geologia della Libia; 5) Enzo Minucci. Il mare pliocenico nella Campania.

**Dzens-Litovskij A. I.** - Les tombolas et les langues de sable des lacs salés de la Crimée [*De lacubus salsis in Crimea*] (En russe). 10 fig., Izv. Gos. Geogr. Inst. (Bull. Inst. Géogr. Etta), LXV, 6, 585-595. Moskva (1933). **a - 648**

Résultats de l'exploration hydro-géologique des lacs salins de la Crimée effectuée par les expéditions de l'Institut d'Hydro-Géologie et de Géologie appliquée au Génie, dont le but spécial a été d'étudier les barrages des groupes des lacs salins d'Evpatorija et de Tarankoutsk. Dans le présent article l'A. donne la description du littoral de la Mer Noire aux environs d'Evpatorija au point de vue géologique et pétrologique.

**Gervasio M.** - I rapporti tra le due sponde dell'Adriatico nella età preistorica [*De correlationibus inter duas oras hadriaticas ætate præhistorica*]. Atti Soc. Progr. Sc. XXII, Riun. (Bari, 12-18 ott. 1933-XI), IV, 132-150. Roma (1934). **a - 649**

È riassunto quanto finora è stato accertato sui rapporti culturali ed etnici tra le regioni della costa orientale dell'Adriatico con quelle delle coste occidentali; più precisamente lo studio si limita alle coste pugliesi.

**Giere Werner** - Morphologie der estländischen Nordküste [*De morphologia in litoribus nordicis Estoniæ*]. 8 Abb., 12 phot. carte, 105 pp., Veröffentl. Geogr. Inst. d. Albertus-Universität zu Königsberg i Pr., N. F., Reihe Geogr. Nº 6, Gräfe & Unzer. Königsberg i. Pr. (1932). **a - 650**

**Gočev P.** - Geologische Beobachtungen an der Küste des Schwarzen Meeres zwischen der Mündung der Kamcija und Kap Emine [*Observationes geologicæ circa litora Pontica inter fauces fluminis* Kamcija *et Caput* Emine]. Karte, Spisanie na Bâlgarskoto Geol. Druzestvo, IV, 3, 200-211. Sofia (1932). **a - 651**

**Gorbatsky G. W.** - The Postpliocene and Relief of the South-East Coast of the Kanin Peninsula [*De stratibus postpliocenicis deque relevamento litorum sud-occidentalium pæninsulæ* Kanin] (In Russ., Engl. Summ). 1 fig., tables, 3 maps. Izv. Gos. Gheogr. Obstsch., LXIX, 6, 447-480. Leningrad (1932). **a - 652**

Results of the work of an expedition sent out by the Institute for the Exploration of the North in order to carry out a geologic-morphological exploration of the south-eastern shore of the Kanin Peninsula. Geological structure and postpliocene deposits of the area under consideration; results of the mechanical, chemical and diatom analysis of samples collected during the expedition from the clay deposits of the Peninsula. The coastal terraces. Hypothesis of an immense lake of glacial origin which covered the whole south portion of the Kanin Peninsula. The forms of the coastal micro-relief. The effect of the sea-erosion at the Kanin coast.

**Krempf Armand** - Inscription marégraphique des cycles de rétrogradation des noeuds de la lune par certains Coraux constructeurs de récifs [*Inscriptio mareographica cyclorum retrogradationis nodorum lunarium in coralliis vada ædificantibus*]. 1 fig., C. R. Acad. Sc., CXCVIII, 19, 1708-1710. Paris (1934). **a - 653**

Observations portées sur une colonie d'Astraeidé, du genre *Favia*, qui offre, inscrits par son squelette, six cycles lunaires, représentant un total d'environ 112 années. Analyse d'un de ces enregistrements et sa genèse. Importance de ces études au point de vue de la paléontologie, de la géologie et de l'astronomie.

**Majo Ester** - Le crespe di sabbia. (Morfologia del litorale Campano) [*Rugæ arenosæ. Morphologia litoris Campani*]. 4 fig., Riv. di Fis. Matem. Sc. Nat., 1, 3-10. Napoli (1933). **a - 654**

Per le diverse località si hanno diversi valori relativi alle dimensioni delle crespe. Le dimensioni di queste aumentano in seguito al moto ondoso, però il rapporto $\frac{L}{H}\left(\frac{\text{lunghezza}}{\text{altezza}}\right)$ resta sensibilmente costante. Spesso si riscontrano crespe intercalate di piccolissime dimensioni, specialmente a Miliscola verso riva.

**Matthews E. R.** - Coast Erosion and Protection. Third Edition revised, with an Additional Chapter and an Appendix by Dr. Brysson Cunningham [*Erosio litorum eorumque tutela*]. 36 pl., xviii + 228 pp., Charles Griffin & Co. Ltd. London (1934). **a - 655**

Erosion and accretion are dealt with. Action of sea water on concrete examined and discussed. Harbor protections.

**Murray J. W.** - Richesse minière de l'Egypte sur les côtes de la Mer Rouge et dans le Sinai [*De metallis in litoribus Maris Rubri et in* Sinai]. Bull. Soc. R. de Géogr. d' Egypte, XVIII, 3/4 345-347. Le Caire (1934). **a - 656**

Résultats d'une inspection du Ministre des Finances du Gouvernement égyptien sur les côtes de la Mer Rouge.

**Obrutschev S.** - Geological Prospecting of the Polar Coast of the Chukchee District by the Arctic Institute in 1933-1934 [*Prospectus geologicus litoris polaris in districtu* Chukchee *ad Institutum Arcticum pertinente*]. Bull. Arct. Inst., 1, 37-39. Leningrad (1934). **a - 657**

Account of the geological and topographical survey of the Polar Coast covering an area of 8000 sq. km. The object of the survey was to determine the common minerals encountered in the area and the geological mapping of the area between the watershed of the main Anadir Ridge and the shore of the Polar Sea, the East limit being the Koluchinskaja Bay and the West-Cap Severnyj.

**Rothé J. P.** - Observations morphologiques au Scoresby-Sund [*Observationes morphologicæ in* Scoresby-Sund]. C. R. Acad. Sc., CIIIC, 23, 1443-1444. Paris (1934). **a - 658**

Observations à caractère géologique de la Terre de Liverpool et de la Terre de Jameson, au cours de la mission française de l'Année Polaire.

**Scherber Rudolf** - Erosionswirkungen an der toskanischen Felsküste [*Erosiones in litoribus saxeis Tuscis*]. 6 Abb., Natur. u. Mus., LXII, 7, 231-234. Frankfurt a. M. (1932). **a - 659**

Die hier mit deutlichen Abbildungen dargestellten Erosionswirkungen haben ihren Grund in dem hohen Salzgehalt des überspülenden Meereswassers.

**Schwarz Albert** - Grundsätzliches zur Meeresgeologie, Tatsächliches und Grundsätzliches zur Küstensenkungsfrage [*Principia geologiæ maris. Res ac principia problematis depressionis litoreæ*]. Senkenbergiana, XIV, 1/2, 40-70. Frankfurt a. M. (1932). **a - 660**

I. Der Gegenstand der Meeresgeologie; II. Begründung für die Notwendigkeit einer eindeutig klaren meeresgeologischen Ausdrucksweise; III. Die natürliche Ordnung der

Erscheinungen » als Grundlage der Begriffumreissungen; IV. Die Aufgabe und Stellung der Meeresgeologie gegenüber dem meeresgeologischen Fragenkreis; V. Wegener's Küstensenkungs-Gegenbeweis und die natürliche Ordnung der Erscheinungen; VI. Die grundsätzlichen Mängel absoluter Zahlenangaben; VII. Die ausschlaggebenden « Senkungs » - umstände. VIII. Die Deutung der Hallig-profile. Anhang: Meeresgeologische Ausdrücke und Begriffsbestimmungen.

**Tayama Risaburô** - Boso Hanto no Tikei toku ni Siusyokumen no Taihi ni tuite [*De morphologia pæninsulæ* Boso *deque correlationibus inter superficies erosionis*]. 18 fig., 3 cartes h. t., 13 tabl. 64 pp., Sendai Zaidan Hôzin etc., IX, Juillet. Sendai (1930). **a - 661**

**Utida Yutaka & Hagimoto Yosimune** - On the Forms of Coast Lines [*De lineis litoreis earumque formis*]. Abstr. in Jap. Journ. Astr. & Geoph., XI, 3, 53-54. Tokyo (1934). **a - 662**

On the suggestion of Prof. T. Terada, the authors investigated the angles subtended between two consecutive straight coast lines, and studied the influence of erosion of ages on those angles.

**Wade Arthur** - Note on the Geology of the Ionian Islands [*De geologia insularum Joniarum*]. Journ. Inst. of Petrol Technol., XVIII, Sept., 779-785. London (1932). **a - 663**

**Wilhelmy Herbert** - Die morphologischen Probleme der Neogenbucht von Varna [*De problematis morphologicis in sinu neogenico* Varna]. Ztschr. f. Geomorphol., VII, 4/5, 231-245. Leipzig (1932). **a - 664**

**Yamaguti Sadao** - The Seacliff of the Idu Islands [*De præcipitiis insularum* Idu]. Geogr. Rev. Japan, 9, 91-108. Tokyo (1933). **a - 665**

These islands are surrounded by high seacliffs which are very prominent, especially on the basaltic andesite cones, such as Osima, Tosima, Miyakezima and Hatizyozima. Differences in the heights explained by prevailing winds, and by doyonami (large swells).

## Sedimenta.

**Blumberg O. K.** - Die photometrische Methode der mechanischen Analyse der feinkörnigen Geschiebe [*Methodus photometrica pro analysi mechanica detritorum tritorum*] (In russ., dtsch. Rés.). 6 Abb., Mém. Inst. Hydrol., X, 65-73. Léningrad (1933). **a - 666**

Die Einführung der photometrischen Messungen zum Zwecke der Geschiebeuntersuchungen ermöglicht die Anwendung einer neuen Methode der mechanischen Analyse von feinkörnigem Geschiebe und Schlamm, die infolge ihrer hohen Präzision die anderen Methoden weit überragt. Es werden die Vorzüge des Kompensations-Photometers von Joben hervorgehoben, das in einer Reihe von Untersuchungen die Idee der der natürlichen Fraktionen-Grenzen von Prof. V. G. Glouchkoff zu beweisen gestattete. Die weitere Entwicklung der Methode soll einen Uebergang von der Verhältnismasse zur Absolutmasse gestatten.

**Buffault Pierre** - Les dunes de la Nouvelle-Zélande [*Dunæ seu cumuli arenosi in Nova Zelandia*]. 4 pl., phot., Rev. des Eaux et Forêts, 30e année LXX, 25-41. Paris-Nancy (1932). **a - 667**

**Dropsy U.** - Sur l'origine des sables des plages des Iles de Los (Guinée Française) [*De origine sabulæ in ora maritima* Iles de Los (*Guinea Gallica*)] 1 fig., Bull. Mus. Nat. Hist. Natur., VI, 2e ser., 3, 310-314. Paris (1934). **a - 668**

Généralités. Prélèvement des échantillons avec liste. Hypothèses sur l'origine des sables. Ouvrages consultés.

**Field Richard M.** - The Gravity Measuring Cruise of the U. S. Submarine S-48. Introduction [*De navigatione, mensuris gravitatis ducendis, a navi submergibili* S-48 *peracta. Introductio*]. U. S. Hydrogr. Off., The Navy-Princeton Gravity Exped. 1932, 1-2. Washington, D. C. (1933). **a - 669**

Hints concerning the organization, the staff and the scope of one of a series of expeditions called « International Expeditions to the West Indies », which were initiated by the Department of Geology of Princeton University in 1926, for the purpose of studying the regional problems in sedimentation and diastrophism.

**Field Richard M. & Hess Hammond Harry** - A Bore-hole in the Bahamas [*De perforatione in* Bahamas]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29. 1933, 234-235. Washington, D. C. (1933). **a - 670**

Results of observations made after a boring on the Island of New Providence, the Bahamas, whose purpose was to collect data on the following problems: (1) the origin of certain types of limestone; (2) dolomitization; (3) the stratigraphy of the Bahamas, and (4) relation of the calcareous rocks to the deeply submerged valleys.

**Lopatin S.** - Ueber die Tätigkeit des Büros für Geschiebenuntersuchung [*De activitate Officii Hydrologici circa investigationes de sedimentationibus*] (In Russ., dtsch. Rés.). Mém. Inst. Hydrol., XI, 197-200. Léningrad (1933). **a - 671**

Forschungsarbeiten des Hydrologischen Büros auf dem Gebiete der Geschiebeforschung nach dem Arbeitsplan des Direktors, Herrn Prof. S. Woskressensky.

**Lüders K.** - Sediment und Strömung [*De sedimentationibus et currentiis*]. Senckenbergiana, XIV, 6, 387-390. Frankfurt a. M. (1932). **a - 672**

Nach allgemeinen Betrachtungen über Stromgeschwindigkeit und Sedimentverteilung laut den Forschungen von Schoklitsch, Pratje, Schütte, von Correns u. a. schliesst der Vf., dass eine Abhängigkeit des vorhandenen Sedimentes von der heutigen Strömung nur ausnahmsweise bewiesen werden kann.

**Markov K. K.** - La Mer Yoldienne et le problème du détroit entre la Mer Baltique et la Mer Blanche à la fin de la période glaciaire [*De Mari Joldico deque problemate circa strictum inter Balticum et Mare Album, exeunte periodo glaciali*] (En russe). 8 fig., Izv. Ghéogr. Obstsch. (Bull. Soc. Géogr.), LXV, 4, 369-384. Leningrad (1933). **a - 673**

L'A. expose l'hypothèse de H. Munthe sur la Mer Yoldienne, considérée comme une phase initiale (post-glaciaire) de la Baltique, émise vers la fin du siècle précédent, mais qui n'a rien perdu de sa signification. Les derniers travaux de H. Munthe lui-même, ainsi que ceux de Thomasson, Sauramo et Tanner, ont complété cette hypothèse, mais sont restés presque inconnus aux savants soviétiques. Le présent article contient le résumé de ces nouvelles modifications de l'hypothèse fondamentale de Munthe, surtout en ce qui concerne les eaux du bassin Yoldien qui occupaient le territoire de l'Union Soviétique. L'A. illustre la position de la superficie isobasique de la Mer Yoldienne, détermine la date des dépôts yoldiens à l'aide des données sur le pollen des plantes et étudie des sédimentations yoldiennes sur l'isthme de Carélie. Il conclut en affirmant que rien n'autorise la supposition de l'existence à l'époque considérée d'un détroit entre la Baltique et la Mer Blanche.

**Piggot C. S.** - Radium Content of Ocean-Bottom Sediments [*De radio in sedimentis oceanicis*]. Amer. Jour. Sc., XXV, 147, 229-238. New Haven, Conn. (1933). **a - 674**

**Schwarz Albert** - Der tierische Einfluss auf die Meeressedimente (besonders auf die Beziehungen zwischen Frachtung, Ablagerung und Zusammensetzung von Wattensedimenten) [*De animalium influentia in sedimenta marina præcipue pro correlationibus inter subvectionem, sedimentationem et sedimentorum compositionem in bassis fundis æstibus exsiccatis*]. 28 Fig. a. T. mit Erklär., Senckenbergiana, XIV, 3, 118-172. Frankfurt a. M. (1932). **a - 675**

In der Schlussfolgerung nach den folgenden Kapiteln wird die Abhängigkeit des Sedimentes und der Sedimentation von der Fauna bestätigt: I. Anfrachtung und Ablagerung der Sedimentteilchen als voneinander unabhängige Folgen wesensverschiedener physikalischer und biologischer Erscheinungen; II. Sedimentbewegung und Sedimentbildung in Abhängigkeit von den Bewegungszuständen des Sedimentbringers; III. Sedimentbewegung und Sedimentbildung in Abhängigkeit von tierischen Einwirkungen; IV. Beispiele fossiler Kotanreicherungen und Bedeutung dieser Kotanreicherungen für den chemischen und mineralogischen Charakter des Sediments.

**Selwell H. R.** - Chemical Studies of the Submarine Sediments [*Studia chimica sedimentorum submarinorum*]. Woods Hole Ocean. Inst., Rep. 1930-32, 34-35. Woods Hole, Mass. (1933). **a - 676**

Brief summary of the results of a critical study of certain physical-chemical characteristics of sediments of the coastal shelf, undertaken with the object of evaluating the relative importance of the sea bottom as a source of supply to the chemical fertility of the waters of the Woods Hole region.

**Stetson H. C.** - Scientific Results of the « Nautilus » Expedition, 1931. Part V, The Bottom Deposits [*Resultatus scientifici ex navigatione navis* « Nautilus » *a. 1931. Pars V.a Deposita*]. Papers in Physical Oceanography and Meteorology, II, 3, 17-37. Woods Hole, Mass. (1933). **a - 677**

**Stetson H. C.** - Investigation of the Distribution of Marine Sediments from the Shore Line out to the Continental Shelf [*Investigationes in distributionem sedimentorum marinorum a linea litorea ad plateam continentalem*]. Woods Hole Ocean. Inst., Rep. 1930-32, 35-36. Woods Hole, Mass. (1933). **a - 678**

Description of a new type of bottom sampler devised by C. Iselin, its use and some experiments made with pans for collecting sediments.

**Stetson H. C.** - Investigation of the Sediments of the Continental Shelf and Their Environment [*Inquisitiones in sedimenta plateæ continentalis et propinquitatum*]. Woods Hole Ocean. Inst., Rep. 1930-32, 48-49. Woods Hole, Mass. (1933). **a - 679**

Summary of the results of mechanical analysis of sediments collected along traverses from the shore to the edge of the continent at the following places, samples being taken approximately every mile: Martha's Vineyard, Block Island and Ocean City, Md., with three short traverses, one off Atlantic City, N. J., and two off the outer side of Cape Cod.

**Szàdeczky-Kardoss v. E.** - Zur Kenntnis der Mediterranen Konglomerate von NW-Siebenbürgen [*De conglomeratis mediterraneis regionis* Siebenbürgen *nord-occidentalis*]. 2 Abb., Tab., Földtani Közlöny (Geol. Mitt.), LXII, 1/12, 165-186. Budapest (1933). **a - 680**

Analytische Untersuchung der helvetischen Konglomerate Siebenbürgens, teilweise in Tabellen wiedergegeben. Die bisherige Auffassung in Bezug auf die Herstammung dieser für helvetisch gehaltenen Konglomerate wird hier widerlegt. Voraussetzung vulkanischer Tätigkeit und einer Transgression des miozänen Meeres.

**Taliaferro N. L.** - The Relation of Volcanism to Diatomaceous and Associated Siliceous Sediments [*Relatio de vulcanismo in sedimentis diatomæarum et in conglomeratis siliceis*]. Univ. Calif. Dpt. Geol. Sc. Bull. XXIII, 1, 1-56. Berkeley Calif. (1933). **a - 681**

Submarine outpourings and explosions of volcanoes create a favorable milieu for rapid growth and deposition of siliceous organisms, chiefly diatoms, which contribute to make part of tertiary formations of California.

**Umbgrove J. H. F.** - Tijd en type der tertiaire plooiingen binnen de zone van sterk negatieve afwijkingen der zwaartekracht in den indischen Archipel [*De ætate ac typo rugarum tertiariarum in zona deviationum quæ maxime negant gravitationem in Archipelago Indico*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LI, 1, 20-34. Leiden (1934). **a - 682**

Riferendosi alle ricerche di Verbeek, Weber, Terpstra e Kemmerling nel gruppo di isole Timor-Boeroe e nelle isole all'ovest di Sumatra l'A. dà un sommario riguardante l'epoca di corrugamento delle isole che si trovano dentro la zona delle deviazioni negativi della gravitazione, come anche delle informazioni sulla facies e sulla densità degli strati terziari delle suddette regioni. Seguono: uno schema stratigrafico sul gruppo delle isole all'ovest di Sumatra basato sulle ricerche di Terpstra, sulle isole di Kei secondo gli studi di Weber, alcune notizie sulle isole Ceram, Boeroe, Batang doea (Per il braccio orientale di Celebes l'A. si riferisce a questa rivista pp. 813-814, 1932).

**Vogt Thorolf** - Late-Quaternary Oscillations of Level in Southeast-Greenland [*De livelli oscillationibus, ætate quaternaria perdurante, in Groënlandia sud-occidentali*]. 14 figs., Norg. Svalbard- o. Ishavsunders., Skr. om Svalbard o. Ishavet 60, 1-44. Oslo (1934). **a - 683**

Raised shore-lines in Southeast-Greenland. Raised shorelines in other parts of Greenland. The climatic conditions during the formation of the raised shore-lines. Comparison between the Greenland and Fennoscandia areas of upheaval: Connection of the raised shore-lines. The gradients. The depression of Greenland in the sub-atlantic time. Some further consequences.

**Wanenmacher J. M., Twenhofel W. H. & Raasch G. O.** - The Paleozoic Strata of the Baraboo Area, Wisconsin [*De stratibus palaeozoicis in area* Baraboo]. Amer. Journ. Sc., XXVIII, 163, fifth ser., 1-30. New Haven, Conn. (1934). **a - 684**

Results of studies made during 1931 and 1932. General geologic history: submergences, formation of a ring of islands in the Cambrian seas having a great influence upon the nature of the sediments deposited in its vicinity, erosion. The paleozoic strata and their different formations and fossils. Provenance of the paleozoic sediments.

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**An.** - Growth of the Madreporic Reefs - Croissance des récifs madréporiques [*De accretione in scopulis matreporicis*] (En franç. et angl.). Bull. Hydrogr. Int., 1, 9-10. Monaco (1933).

(—) See also: Bull. Hydrogr. Int., 11, 258. Monaco (1933). **a - 685**

Quelques observations au sujet de la note, ayant le titre ci-dessus, parvenues au Bureau Hydrographique International

de la part du Capitaine de Vaisseau J. L. Luymes, Directeur d'Hydrographie des Pays-Bas sur la différence existant entre la croissance des coraux et celle des récifs, sur lesquels poussent les premiers.

**An.** - Rate Growth of Coral Reefs - Croissance des récifs madréporiques [*De accretione in scopulis matreporicis*] (In Engl. & French). 1 tabl., Bull. Hydrogr., Int., 4, 81-82. Monaco (1933). **a - 686**

After a recapitulatory table of the results obtained by Mr. J. Th. Verstelle in his study published in the Miscellany « Treubia », Buitenzorg, Java, Dec. 1932, p. 117 on the rate of growth of the coral, in which are reproduced, with a few changes, the observations already given by him in « De Zee », there is given a postcriptum to the table by Dr. J. Verwey dealing with the causes of the « rising » and « sinking » of the coral reefs.

## Topographia submarina - Marini fundi configuratio.

**Arkangelskij A. D. & Strachov N. M.** - Geologitcheskaia istoria Tchernogo Moria [*Historia geologica Ponti Euxini*]. (Rés. angl.). pl., Bull. Soc. Nat. Moscou, Sect, géol., X, 3-104. Moscou (1932). **a - 687**

Le fond de la Mer Noire. Résultats des explorations commencées en 1924 et achevées en 1930. Les AA. en établissant l'existence d'une série de bassins qui se remplaçaient successivement, cherchent à déterminer les conditions physico-géographiques de cette Mer dans le temps. Bibliographie.

**Baschin O.** - Submarine Täler und Schluchten [*Valles et abyssi submarini*]. Naturwiss., XXII, 4, 63. Berlin (1934). **a - 688**

Beispiele submariner Täler im Atlantischen Ozean; ihre Entstehung mit Zustimmung der von Wegener ausgesprochenen Theorie von Spalten im Kontinentalrand, wahrscheinlich in Verbindung mit Erdbeben in der Jetztzeit.

**Collin M. L.** - Les vallées sous-marines du Nord-Ouest du Finistère [*De vallibus submarinis in regione nord-occidentali Finisterræ*]. 3 fig., Bull. Soc. Océanogr. France, 69, 1217-1222, 70, 1233-1241. Paris (1933). **a - 689**

I. La plate-forme littorale; II. Les ruisseaux du nord de la région; III. L'Alber-Ildut; IV. Chenal du Four et chenal de la Helle; V. La vallée sous-marine du plateau de Molène; VI. Le Fromveur.

**Collin M. L.** - Les vallées sous-marines de la côte Ouest du Finistère [*De vallibus submarinis in litoribus orientalibus regionis Finisterræ*] (Suite et fin). Bull. Soc. Océanogr. France, 78, 1361-1370. Paris (1934). **a - 690**

Suite et fin de la description des vallées sous-marines des environs de Douarnenez. Considération concernant l'origine et le mode de formation de ces vallées; III. Le cap Sizun, la baie des Trépassés, la chaussée de Sein. Morphologie de la région, sa formation. Conclusions: Reconstruction du continent dans la région ouest du Finistère aux dernières époques antépléistocènes. Divers mouvements positifs et négatifs de la mer dans la région considérée. Plages soulevées, falaise fossile. Bibliographie.

**Davis W. M.** - Submarine Mock-valleys [*De falsis vallibus submarinis*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 232-234. Washington D. C. (1933).

(—) See also: « Submarine Mock-valleys », « The Geogr. Rev. », XXIV, 2, 297-308, New York (1934). **a - 691**

The author gives a definition of what he calls « mock-valleys » and claims that it is illogical to insist that submarine valleys can have been originated only in one way. He gives a brief description of the submarine valley some 15 miles southeast of the Santa Monica Coast, the valley which heads in Monterey Bay 70 miles south of the Golden Gate and shows that the valleys have been originated not by subaerial stream-erosion, but formed on the surface of the Earth during the lower stand of the ocean, during the Glacial Epoch.

**De Buen Fernando** - Croisière du « Xauen » dans les eaux de Guipuzcoa [*De navigatione navis* « Xauen » *ad* Guipuzcoa]. 13 fig., 1 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXVII, 8-16. Copenhague (1934). **a - 692**

Compte rendu d'une croisière effectuée pendant les mois de Juillet et Août 1932 dans le but d'exécuter un sondage intensif dans les eaux de la région de Guipuzcoa qui marquerait, avec la plus grande précision possible, les limites du plateau continental, délimitant les zones où l'on peut mettre à l'eau les engins de pêche. L'étude se limita à montrer l'étendue du plateau continental le long des côtes de la province basque de Guipuzcoa, spécialement le golfe, délimité par un saillant vers l'ouest, le Cap Machichaco, et le fond de la Mer Cantabrique au commencement de la côte Française. Liste des sondages effectués.

**De Buen Rafael** - Caractères océanographiques du Secteur Sud (Plateau Continental Atlantique) [*Caracteristicæ oceanographicæ ad Sectionem merid. pertinentes* (*Platea Continentalis Atlantica*)]. 24 fig., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXVII, 33-44. Copenhague (1934). **a - 693**

Compte rendu de quatre croisières effectuées par le bateau océanographique « Xauen » dans le Détroit de Gibraltar. Étude des caractéristiques du relief sous-marin, et spécialement de la crête de hauts-fonds qui traverse la région centrale du Détroit. Influence extraordinaire du relief du fond modifiant profondément le courant méditerranéen inférieur. Déterminations des profondeurs du détroit dans la barrière centrale qui se trouve entre Punta Paloma et Punta Altares. Les données acquises expliquent les phénomènes dynamiques de la région et ont une grande valeur pour la connaissance exacte du profil favorable pour construire le tunnel de Gibraltar. Résultats des sections effectuées en mai, février, septembre et novembre. Salinités, températures et densités de l'eau observées. Importance des résultats acquis.

**Dons Carl** - Ein Tiefpeilapparat für Dredgungen [*De apparatu ad relevamenta fundi idoneo, actione verrenti perdurante*]. 2 Abb., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 54, 203-205. Trondheim (1934). **a - 694**

Beschreibung eines vom Vf. erfundenen Apparates, der sich besonders für Untersuchungen von Korallenhügeln eignet, wo die Strömungen fast immer zu stark sind um genaue Lotwürfe zu ermöglichen.

**Gruvel A. & Besnard W.** - Recherches sur la nature des fonds de la côte occidentale du Maroc [*Investigationes de natura fundi marini in litoribus occidentalibus Mauretanicis inter caput* Cantin *et Caput* Ghiz]. C. R. Acad. Sc., CIIIC, 25, 1675-1676. Paris (1934). **a - 695**

Les AA. ont relevé sur cette côte occidentale du Maroc certains faits particulièrement intéressants et indispensables à connaître pour assurer, sans trop de risques, le travail des chalutiers sur cette partie de la côte.

**Hess Harry Hammond** - Submerged River-valleys of the Bahamas [*De vallibus fluviatilibus submersis ad* Bahamas *pertinentibus*]. 2 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th

Ann. Meet., Apr. 27-29, 1933, 168-170. Washington, D. C. (1933). **a - 696**

Additional data and results of further studies accomplished by the International (Navy-Princeton) Expedition to the West Indies on the great submarine valleys of the Bahamas: Brief description of the valleys, their threefold origin, the possible hypothesis of valley-like depressions below the sea, transverse profile of the valley, showing steep « reef-cliffs »; hypothesis of the building up, rather than building out of the valleys. Age of the valleys.

**Kniffen Fred B.** - Lower California Studies. IV. The Natural Landscape of the Colorado Delta [*De California Meridionali. Prospectus deltæ fluminis* Colorado]. 4 fig., pl. phot. chart, Univ. of Calif. Publ. in Geogr., V, 4, 149-244. S. Francisco, Calif. (1932). **a - 697**

Detailed morphological study. See also the preceding work of the same author N° III on the same argument (Ibid. V, 2, 43-66, 1931).

**Lüders K.** - Unmittelbare Sandwanderungsmessung auf dem Meeresboden [*De mensuris ex tempore motuum arenarum per fundum marinum*]. 17 Abb., Veröff. Inst. f. Meeresk. N. F., A. Geogr.-naturw. Reihe, 24, 1-35. Berlin (1933). **a - 698**

Beschreibung eines neuen Gerätes, einer sog. Sand-falle, das bei den Arbeiten in der Wasserbau-Versuchsanstalt der Marinewerft Wilhelmshaven benutzt worden ist. Besprechung einiger Messungen und Ergebnisse in Bezug auf den Beginn der Sandwanderung, die Abhängigkeit zwischen Stromgeschwindigkeit und der Konsistenz des Materiales. Berechnung der Sandwanderung aus dem Jade-Gebiet.

**Malicki Adam** - Deniwelacje Globu Ziemskiego [*De orbis delivellatione*]. Bull. Int. Acad. Polonaise Sc. et Lettres. Cracovie (1933). **a - 699**

L'A. est de l'opinion que le fond des océans est très accidenté.

**Morandini G.** - Acque profonde e configurazione delle profondità abissali dell'Atlantico [*De aquis peraltis deque configuratione profunditatum abyssalium Oceani Atlantici*]. Boll. Soc. Geogr., Luglio-Agosto, 561-565. Roma (1933). **a - 700**

**Orton J. H.** - Air-pockets in Shore Sands and Winter Packing of the Sea-bottom [*De crumenis aëre formatis in sabulis litoreis deque concretionibus hiemalibus fundi marini*]. Nature, CXXXIII, 3370, 835-836. London (1934). **a - 701**

Air-pockets observed by the author crossing the Lancaster. Explanation suggested for their formation. British inshore fishermen held the prevailing view that the sea-bottom on the fishing ground becomes hard in winter. Confirmation of this observation whose physical causes remain to be sought.

**Peacock F. L.** - Interesting Submarine Configuration off the Californian Coast [*De notanda quadam configuratione submarina extra litora Californiensia*]. Bull. Assoc. Field Engr., Dec., Washington (1933). **a - 702**

**Pratje Otto** - Sind die Bodenprofile aus den Röhrenloten ohne Unterbrechung? Versuche über die Arbeitsweise der Röhrenlote (24. Beitrag zur Geologie der Meere) [*De scandaliis tubo præditis rebusque ad ea pertinentibus*]. 1 Taf. a. T., Ann. d. Hydrogr., LXII, 4, 137-144. Berlin (1934). **a - 703**

Bericht über die Ergebnisse der von dem Vf. im Frischen und Kurischen Haff veranstalteten Untersuchungen zur Klärung der Frage, wie eine Verlängerung der zu kurz ausfallenden Proben erzielt werden könne, bzw. der Ursachen der Verkürzung derselben. Vorschriften um möglichst lange, einwandfreie Profile erhalten zu können.

**Rallier du Baty R.** - Montagnes et vallées sous-marines du Golfe de Gascogne [*De montibus et vallibus submarinis Maris Cantabrici*]. Journ. Cons. Int. Expl. Mer, IX, 2, 181-195. Copenhague (1934). **a - 704**

Compte rendu des résultats des sondages acoustiques effectués par l'A. dans le Golfe de Gascogne et qui semblent renforcer singulièrement l'hypothèse émise par lui dans une communication au 52-ème Congrès de l'Association Française pour l'Avancement des Sciences qui envisage la possibilité, au cours de nombreuses oscillations relatives qu'a subi le niveau marin sur notre globe, d'une surrection régionale de l'écorce terrestre, ou d'un abaissement de la mer, laissant entièrement sêche la cuvette du Golfe de Gascogne, dont le fond est à 5000 m. au dessous du zéro actuel. Reconstruction d'une zone comprise géographiquement entre 45° et 50° de latitude Nord, bathymétriquement entre 100 et 2000 m. et de tracés schématiques de nombreuses dépressions assimilables à des vallées fluviales qui paraissent être le prolongement sous-marin des fleuves et des rivières qui viennent se jeter dans le Golfe.

**Rathjens Karl & Wissmann (von) Herrmann** - Morphologische Probleme im Graben des Roten Meeres [*De problematis morphologicis in fossis Maris Rubri*]. 22 Karten, Phot., Taf., Peterm. Mitt., LXXIX, 5/6, 7/8, 113-117, 183-187. Gotha (1933). **a - 705**

**Shepard Francis P.** - Submarine Valleys [*Valles submarinæ*]. 8 figs., Geogr. Rev., XXIII, 1, 77-89. New York (1933). **a - 706**

Canyons of Georges Bank. Distribution of submarine valleys. Origin of the valleys. The diastrophic explanation. Submarine currents. Solution channels. Recent origin of valleys. Landslides. Tests of the hypothesis. Explanation of valley-free shelves. Importance: practical and theoretical.

**Shepard Francis P.** - Geological Misconceptions Concerning the Oceans [*De erratis geologicis interpretationibus oceanorum*]. 1 fig., Science, LXXVIII, 2027, 406-408. New York (1933). **a - 707**

The author explains the reason why our knowledge about ocean floor is so restricted. Continental shelf profiles, deep inlets along glaciated coasts, submarine valleys, high terraces, and deep ocean floors are dealt with here.

**Shepard F. P.** - Investigations of Submarine Valleys [*De exploratis vallibus submarinis*]. 1 fig., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 170-173. Washington, D. C. (1933). **a - 708**

Rôle of the introduction of echo-sounding and the use of bombs to determine positions in the discovery of many new submarine valleys. Some results of recent surveys which indicate that at least many of the submarine valleys are the production of river-erosion. Use of current-meter in order to see whether waves or currents are important in excavating or maintaining the valleys. Study of the topography of submarine valleys by means of buoys. Results of the study of bottom-samples of submarine valleys. Need of verification of the evidence which suggests that submarine landslides periodically reopen the submarine valleys.

**Tånning A. Vedel** - A Supposed Submarine Ridge along the South-East Coast of Greenland [*De elatione quadam submarina præter litus Sud-orientale Groënlandiæ*]. 2 figs., Nature, CXXXIII, 3357, 326. London (1934). **a - 709**

Soundings made by the Danish Research Ship « Diana » which point to a continuous ridge off the coast south of Angmagssalik. More close investigations are however necessary.

**Tchernychev B. I.** - Les éboulements sous-marins dans les masses supérieures paléozoiques du Nord-Ouest du Kasakstane [*Collapsus submarini in massis superioribus palæozoicis regionis Nord-occidentalis* Kasakstane] (En russe). 7 fig., Izvest. Gos. Ghéogr. Obstsch. (Bull. Soc. Géogr.), LXV, V, 365-368. Leningrad (1933). **a - 710**

Résultats des explorations des couches du Palézoique Supérieur le long du fleuve Téré-Akkan avec référence spéciale à une formation sédimentaire qui permet de déduire la présence dans la région explorée d'une mer en voie d'assèchement. Description abrégée de la formation et du caractère de sa distribution qui permet de conclure que des éboulements de la côte ont eu lieu à l'époque paléozoique, analogues à ceux que l'on observe dans les formations triassiques de l'Allemagne et de l'Amérique.

**Vaughan T. Wayland** - Purpose and Accomplishment of the Committee on Submarine Configuration and Oceanic Circulation [*De operibus peractis a Comitato pro configuratione submarina et circulatione oceanica*]. Rep. Comm. Submar. Config. & Ocean. Nat. Res. Counc., Circ., 1932, 1-14. Washington, D. C. (1932). **a - 711**

New Marine Laboratories: Australia, Oregon, Yougoslavia, Italy. Reports of expeditions: Meteor, Great Barrier Reef Expedition, 1928-29, Dana, Willebrord Snellius Expedition to the East Indies, Norwegian Exploration in the Antarctic, 1930-31, British-Australian-New Zealand Antarctic Research Expedition, Nautilus, Wilkins-Ellsworth Transarctic Submarine Expeditions of 1931. Plotting sea surface temperatures on charts. Contents Bulletin, National Research Council, on Oceanography, n° 85.

**Wüst G.** - Das Bodenwasser und die Grossformen des Atlantischen Tiefseebodens [*De aqua fundi marini deque relevamentis præcipuis fundi oceani Atlantici*]. Naturwiss, XXI, 33, 612-613. Berlin (1933). **a - 712**

Vortrag gehalten am 19. Dez. 1932 in der Fachsitzung der Gesellschaft für Erdkunde zu Berlin. Verschiedene Reliefe und Becken des Meeresbodens und ihr Einfluss auf die Ausbreitung des Bodenwassers. Möglichkeit, aus der Beschaffenheit des Bodenwassers Schlüsse sowohl über die Existenz von Trennungsrücken als über Verbindungen zwischen den einzelnen Becken zu ziehen und weiter die Prozentverteilung arktischen und antarktischen Wassers an jeder Stelle zu bestimmen. Einige Bemerkungen in Bezug auf die Konstruktion der Tiefenkarten sowie auf die Terminologie der Bodenformen.

**Yabe Hijakatu & Tayama Risaburo** - Hôjô Trough [*De fossa* Hôjô *nomine*]. Bull. Earthquake Research Inst., X, Part I, 200-208. Tokyo (1932). **a - 713**

# GEOGRAPHIA MARIS.

## Geographia descriptiva et oeconomica

**Arnaud Odette** - Mer Caraïbe [*Mare Caraibicum*]. 254 pp., Denoël et Steel. Paris (1934). **a - 714**

Reportage de pérégrinations marines d'une île à l'autre de l'archipel des Petites Antilles. Le livre a surtout un caractère ethnographique.

**Batakliev Ivan** - Nasijat cernomorski brêg [*De nostris litoribus Ponticis*]. Bâlgarski naroden morski zgovor, 4, 1-26. Sofia (1932). **a - 715**

**Bertacchi Cosimo** - Una nuova descrizione italiana dell'America Settentrionale con il Messico, l'America Centrale e le Antille [*Descriptio nova Americæ Septentrionalis, Regionis Mexicanæ, Americæ Centralis, Insularum Antillarum*]. Riv. Maritt., Anno LXVII, 6, 325-337. Roma (1934). **a - 716**

**Bezerra A.** - La Geografia del Brasil en el siglo XIX [*Geographia Brasiliæ sec. XIX°*]. Rev. Soc. Geogr. de Rio Janeiro, XXXVI, 2° Sem. Rio Janeiro (1932). **a - 717**

**Bisschop (de) Eric** - Rapports du Capitaine... [*Relationes navispræfecti...*] (suite). 5 croquis, Géogr., Terre, Air, Mer. LXII, 1/2, 53-67. Paris (1934). **a - 718**

(V. « Géogr. », mai-juin 1934, p. 366). Rapport n° 2: Étude sur le contre-courant équatorial au cours de deux mois de croisière dans le Pacifique ouest à l'est des Philippines jusqu'au 140-e degré de longitude est. Observations sur la marche (direction et vitesse) du « contre courant équatorial » faites dans le but d'élucider au point de vue uniquement marin la migration des races du Pacifique. Rapport n° 3: Croisière parmi les Iles Merir, Current, Sonsel. Rectification des positions données sur les cartes. Tables des levés exécutés.

**Brown A. Samler** - Brown's Madeira Canary Islands and Azores. Fourteenth revised Edition [*De insulis* Madeira, Canary *et* Azores. *XIV. Editio Brownii*]. ills., charts, 400 pp., Simpkin, Marshall & Co. London (1932). **a - 719**

**Burr Viktor** - Nostrum Mare. Ursprung und Geschichte der Namen des Mittelmeeres und seiner Teilmeere im Altertum [*Mare nostrum. Origo et historia denominationum Maris Mediterranei mariumque adiacentium antiquis temporibus*]. 15 Abb., x + 141 pp., Würzburger Studien zur Altertumwiss., 4, W. Kohlhammer. Stuttgart (1932). **a - 720**

**Calegari Antonio** - Il Mare nella natura [*De mari ac natura rerum*]. Antonio Vallardi. Milano (1934). **a - 721**

Libro popolare di geografia generale e di oceanografia.

**Cameron Thomas W. M.** - The Early History of the Caribee Island [*De historia vetere insulæ* Caribea]. 3 charts., Scott. Geogr. Magaz. L, 1, 1-18. 2, 92-100. Edinburgh (1934). **a - 722**

**Cousine P. S.** - La description géographique de la côte occidentale de la péninsule Kanine depuis la rivière Kija jusqu'à la rivière Torna [*Descriptio geographica litoris occidentalis pœninsulæ* Kanine *a flumine* Kijä *ad flumen* Torna]. (En russe).

1 carte, Izv. Gos. Geogr. Obstsch. (Bull. Soc. Géogr. Etat), LXV, 2, 178-186. Leningrad (1933). **a - 723**
Description sommaire de la région explorée par l'expédition de l'institut Maritime Scientifique en Août-Septembre 1929 sur le voilier « Savva Lozhkine ». La zone étudiée du littoral ouest de la péninsule de Kanine est délimitée au sud par la rivière Boljschaja Kija (67° 40' N et 44° 08' E) et au nord par la rivière Torna (69° 04' N et 44° 11' E) Elle avoisine la toundra à l'ouest ; elle est baignée à l'est par la partie méridionale de la Mer Polaire Septentrionale.

**Cozzo Francesco** - Mercati e Vie di scambio (Con particolare riguardo al traffico marittimo) [*Mercatus et viæ pro permutationibus commercialibus. (Agitur particulatim de maritima mercium frequentia)*]. 200 pp., Casa Editrice Moruzzi. Genova (1934). **a - 724**
Nelle linee generali tutto il mondo è preso in esame, ma sono specialmente curati i porti principali e le vie marittime di traffico. Un capitolo è dedicato ai mercati, con un paragrafo introduttivo sulle materie prime dei vari paesi. Il libro ha carattere didascalico.

**De La Rüe E. Aubert** - Les îles Kerguelen et leur intérêt scientifique [*De insulis* Kerguelen *earumque momento scientifico*]. 4 fig., Bull. Soc. Océanogr. de France, a. XIV, 79, 1384-1389. Paris (1934). **a - 725**
Histoire de la découverte (1772) par le navigateur bréton Yves de Kerguelen-Trémarec. Travaux hydrographiques. Description des îles. Conditions météorologiques. Conditions lithologiques. A suivre.

**Dickinson R. E. & Howarth O. J. R.** - The Making of Geography [*De geographia*]. Num. figs., & pls., 272 pp., Clarendon Press. Oxford (1933). **a - 726**
Summary in a few interesting chapters of all the making of geography (mathematic, physical, human, regional, biological geography) from the Greeks until Alexander Humboldt, Carl Ritter and modern scholars. The story of cartography and the description of cartographic instruments are also given.

**Dix Arthur** - Die Stellung der Guinea-Küste im Welthandel [*De momento ac positione litoris Guineæ pro commercio mundiali*]. Weltwirtschaftl. Arch., XXXVI, 558-572. Jena (1932). **a - 727**

**Guyon J.** - La Colonisation Française dans l'Océan Pacifique [*De coloniis Gallicis in Oceano Pacifico*]. Centen. de l'Algérie, Comité de l'Afr. Franç. Congrès de la Colonisation Rurale, 26-29 Mai 1930, 267-353. Alger (?). **a - 728**

**Hardingham B. G.** - Round the Globe [*Per orbem*]. 148 pp., Thomas Nelson and Sons Ltd. Edinburgh & London (1934). **a - 729**

**Hitchcock Charles B.** - The Evolution of Moriches Inlet, Long Island [*De evolutione Bajæ* Moriches (Long Island)]. 2 figs., Geogr. Rev., XXIII, 4, 669-670. New York (1933). **a - 730**
Brief description of the evolution of the inlet on hand of aerial photographs taken at monthly intervals by the U. S. Army Air Corps, of which two are reproduced on a plate.

**Hoover J. W.** - The Littoral of Northern California as a Geographic Province [*De ora maritima Californiæ Septentrionalis sicut provincia geographica*]. 12 figs., Geogr. Rev., XXIII, 2, 217-229. New York (1933). **a - 731**
Description from the physical, commercial, physiographical point of view of the littoral between Point Reyes and Cape Mendocino. The coast and its harbors. The bench lands. Anomalies of the climate. Settlement and industries of the region, between which fishing is less important than lumbering dairying or grazing.

**Huxley Aldous** - Beyond the Mexique Bay [*Trans Sinum Mexicanum*]. viii + 319 pp. Chatto & Windus. London (1934). **a - 732**

**Kimble George H. T.** - The « Nec plus Ultra » of the West African Coast in the Middle Age [*De litoribus Africæ orientalis Medio ævo*]. 3 pls., Mar. Mirr., XX, 3, 280-292. London (1934). **a - 733**
Quotation of the narratives of Ibn Sid of his African voyage (1214-76) and of the trade in salt, the thirteenth-century voyages of Vivaldi brothers, the narrative of the enigmatic Spanish Franciscan, author of the « Libro del Conoscimiento de todos los regnos y tierras (written c. 1350). Some cartographic evidence of pre-Portuguese knowledge of West Africa : West African Portion of the Portolan Chart of Angelino Dulcert, 1339, the Laurentian World Map of c. 1351. Summarizing, the author concludes that, despite the dearth of confirmatory cartographical evidence, and the firm Portuguese belief to the contrary, the mediaeval knowledge of West Africa extended to well within tropical latitudes. The exact location of the « nec plus ultra » must, so it seems, remain a moot question.

**Leblond Marius-Ary** - Madagascar, création française [*Insula Madagascariensis ac opera a Gallis peracta*]. 1 carte, Plon, xxxvii - 255 pp. Paris (1934). **a - 734**
Le livre se compose de deux parties distinctes, dont l'une est descriptive et l'autre critique et constructive. Dans la première nous trouvons la description des abords et des rivages du Madagascar.

**Loppens K.** - La région des dunes de Calais à Knocke [*De regione dunosa a* Calais *ad* Knocke]. 5 pl., Laborat. du Litt., 230 pp. Coxyde (village) (1932). **a - 735**
Étude géologique, archéologique et historique des dunes du littoral flamand.

**Magrini Giovanni** - La Laguna di Venezia. Monografia [*Lacuna Venetiarum. Monographia*]. Vol. I, parte II, tomo III. Delegazione italiana della Commissione per l'esplorazione scientifica del Mediterraneo, 26 fig., XXXIII tav. f. t., 305 pp, Tip. Carlo Ferrari. Venezia (1933). **a - 736**
Nel volume sono trattati i seguenti argomenti : Le osservazioni meteorologiche. I fenomeni meteorologici. Il clima. Fenomeni meteorologici straordinari in Venezia e nei dintorni ricordati dai cronisti (dal secolo VIII ai tempi nostri).

**Matsuno Y.** - Las islas del Mar del Sur bajo mandato japonés [*De insulis meridionalibus in dicione Populi Japonii*] (En japonés). Rev. de Geogr., XLV, 533-544. Tokio (1933). **a - 737**

**Mawson Sir Douglas** - The Kerguelen Archipelago [*Archipelagus* Kerguelen]. 7 phot., 1 map. on tabl., Geogr. Journ., LXXXIII, 1, 18-29. R. Geogr. Soc. London (1934). **a - 738**
The object of this paper, read at the meeting of the Royal Geographical Society on 6 March 1933, is to give a short summary of the present knowledge concerning the Kerguelen Archipelago. It deals especially with cartography, hydrology, and biology. The author's observations did not extend beyond the south-eastern quarter of the group. In that area some material additions have been made to du Baty's map of the Kerguelen Islands. Story of the discovery of the Archipelago. Geographical and geological features of the Archipelago. A map of South-Eastern Kerguelen accompanies the paper, based upon the surveys of H. M. S. « Challenger », supplemented by the charts of du Baty and de la Rue, and improved in some details in the area explored with a motor launch and on hand of aerial photographs.

**Milojevic Borifove Z.** - Littoral et îles Dinariques dans le royaume de Yougoslavie. Étude géographique par... [*Litus insulæque Dinaricæ in Regno Yugoslavo. Studium geographicum*]. 56 fig., 12 pl., 1 carte h. t., viii + 226 pp., Mém. Soc. Géogr., 2. Belgrade (1933). **a - 739**

**Mjöberg E.** - Borneo. - Plon. Paris (1934). **a - 740**

Sept années de vie dans les Indes Néerlandaises et à Borneo en particulier.

**Nunn George E.** - The Columbus and Magellan Concepts of South American Geography [*Conceptiones Geographicæ regionis Sud-Americanae Christophori Columbi et Magallani*]. 9 charts, 58 pp., Privately printed. Glenside (1932). **a - 741**

**Olondo T.** - Planes de racionalización del tráfico maritimo [*Tabulæ pro nationalisatione commercii maritimi*]. Vida Marit., Año XXXII, 973/979 Madrid (1933). **a - 742**

**Paravicini Eugen** - Reisen in den Britischen Salomonen [*De navigationibus ad insulas* Salomones *in dicione Britannorum*]. 91 Abb. Kart., Phot., 184 pp. Verlag Huber & Co. Frauenfeld & Leipzig (1931). **a - 743**

**Pellezier-Marsal E.** - Sur les routes de la Corse [*De navigationibus in Corsicam*]. 1 carte, Yachts & Yachting, 5e an., 50, 77-80. Paris (1934). **a - 744**

**Schulz Bruno** - Ein Besuch auf der Insel Jan Mayen im August 1933 [*De visitatione insulæ* Jan Mayen *mense Augusto 1933*]. 1 Karte, Ann. d. Hydrogr., LXII, 6, 250-252. Berlin (1934). **a - 745**

Bericht eines kurzen Besuches der « Meteor-Expedition » : Besichtigung der norwegischen meteorologischen und Funkstation sowie der österreichischen Polarstation. Besteigen des hier beschriebenen Eierberges.

**Sion Julius** -La France méditerranéenne [*Gallia Mediterranea*]. 222 pp., Collection Colin. Paris (1932).

(—) Voir Réc. dans Géogr., LXI, 3/4, 299. Paris (1934). **a - 746**

La France sous l'aspect météorologique, hydrographique et maréographique. Géographie politique des orientations méditerranées, géographie économique et industrielle de la France ; illustration des villes méditerranéennes.

**Staats J. Riley** - India East Coast [*De regionibus orientalibus Indiæ*]. Maps and phot., Journ. of Geogr., XXXI, 3, 93-111. Menasha, Vis. (1932). **a - 747**

**Steenhuis J. F.** - De kustlijn der Eemzee op Nederlandsch gebied [*De linea litorea fluminis* Ems *in regione Hollandica*]. Handel. v. h. XXIV de Nederl. (?) Haarlem (1933). **a - 748**

**Straelen (Van) V.** - Résultats Scientifiques du Voyage aux Indes Orientales Néerlandaises de LL. AA. RR. le Prince et la Princesse Léopold de Belgique [*Resultatus scientifici ex navigatione ad Indias orientales Hollandicas a Principe Leopoldo* de Belgique *eiusque uxore suscepta*]. Mém. Mus. R. Hist. Natur. de Belgique. Hors Série, I. Bruxelles (1933). **a - 749**

Grand volume avec riches illustrations hors texte et dans le texte. Description des lieux visités et des habitants. Renseignements scientifiques pour la plupart intéressant la géographie.

**Strain Warren** - Geography of the West Coast of India [*De Geographia Indiæ litorum orientalium*]. ills., charts, diagr., Journ. of Geogr., XXXI, 1, 1-20. Menasha, Vis. (1932). **a - 750**

**Szekely** - Sumatra. - Soc. Ed. Genio. Milano (1934). **a - 751**

**Wiese W.** - Lamond Island on Franz-Joseph Land [*De insula* Lamond *in Terra Francisci Josephi*] (In Russ. & Engl.). Bull. Arct. Inst., 11, 350, 385. Leningrad (1933). **a - 752**

New information on the island detected by captain Vorotilov in the reckoned φ = 79° 45' N and λ = 58° 40' E, which has been discovered by the Austro-Hungarian Expedition under Payer and Weyprecht and omitted on the map of the Fiala Expedition.

**Wollebœk Alf** - Curaçao. 8 fig., 1 carta, Norsk Geogr. Tidsskr., V, 2, 95-109. Oslo (1934). **a - 753**

Formazione geologica. Importanza per le comunicazioni fra l'Europa e il Nuovo Mondo. Clima. Vegetazione. Fauna. Condizioni etnografiche e popolazione.

**Association de Géographes Français** - Bibliographie Géographique Internationale 1932 (XLII Bibliographie annuelle) [*Bibliographia Geographica Internationalis 1932* (*XLII Bibliographia annua*)]. 581 pp., Librairie Armand Colin. Paris (1933). **a - 754**

2820 numéros. Index des auteurs ou voyageurs analysés ou cités. Table des matières.

**Koninklijk Nederlandsch Aardrijkskundig Genootschap** - *Nomina Geographica Neederlandica* onder redactie van A. A. Beekman (et 4 collaborateurs). 188 & 160, VII & VIII. E. J. Brill. Leiden (1930 & 1932). **a - 755**

**An.** - Transcription of Geographic Names - Transcription des noms géographiques [*De nominibus geographicis eorumque transcriptione*] (In Engl. & French). Bull. Hydrogr. Int., 4, 79-80. Monaco (1933). **a - 756**

Summary of the content of the second edition of the publication of the Royal Geographical Society, R. G. S. Technical Series, n° 2, the title of which is : « Alphabets of Foreign Languages ». The work of the Permanent Committee on Geographical Names for British Official Use (P. C. G. N.). The results of the revision of the R. G. S. system for the phonetic representation of native sounds by Latin alphabet and the production of the R. G. S. II system.

**An.** - Change of Geographical Name - Hispaniola. Changement de nom géographique : Hispaniola [*De variatione nominis geographici* « Hispaniola »]. (In Engl. & French.). Bull. Hydrogr. Int., 12, 210. Monaco (1933). **a - 757**

Information on a decision taken by the U. S. Geographic Board, dated 29th June, 1933, of the change of the name of the island of Haiti to Hispaniola in all official documents.

**An.** - Geographical Positions - Poland. Positions géographiques - Pologne [*Positiones geographicæ: Polonia*] (In Engl. & French). 1 tabl., Bull. Hydrogr. Int., 2, 27-29. Monaco (1934). **a - 758**

Correction to Special Publication n° 24 a, Geographical Position, Part II February 1931, pp. 25 and 26.

**An.** - Australia. New Zealand and the Islands of the Pacific (Catalogue N. S. N° 12). Periodica (Catalogue N° 13) [*Australia. Nova Zelandia. Insulæ Oceani Pacifici*]. 70 pp. & 12 pp., Dawson & Sons, Ltd. London (1934). **a - 759**

## Geographia Polaris.

**Balabin F. I.** - The Work of the Station on Rudolph Islands in 1932/33 [*De operibus a Statione in insula Rudolphi peractis a. 1932/33*] (In Russ. & Engl.). Bull. Arct. Inst., 4, 173-175. Leningrad (1934). **a - 760**

Account of the program of the work of the station. The work performed: meteorological work, biological work, topographic survey of Rudolph Land and adjacent islands, observations on the movements of glaciers, snow-cover measurements, entomological, botanical and ornithological collections, collections of parasites of mammals (seal) and birds, discovery of the remnants of the equipment belonging to the American Expedition Ziegler-Fiala, buried under a thick layer of frozen snow.

**Bauer H. A.** - « Arctica » A New Magazine of the Arctic Institute of the U. S. S. R. [*Periodicus novus* « Arctica » *ad Institutum Arcticum Sovieticum pertinens*]. Geogr. Rev., XXIV, 3, 499-500. New York (1934). **a - 761**

Comments and summaries of the principal papers published in the first volume of « Arctica », a new magazine issued by the Arctic Institute of the U. S. S. R. (Leningrad), under the editorship of the Professors R. L. Samoilovitch and W. J. Wiese.

**Brown R. N. Rudmose** - Recent Polar Work. Some Criticism [*Novissimæ polares explorationes*]. Pol. Rec., 5, 62-66. Cambridge (1933). **a - 762**

Technique of travel as the more striking difference between the polar work of to-day and that of twenty or thirty years ago. Use of airplane and radio, application of mechanical power to transport. Account of some books published relating polar discoveries. The risk taken nowadays by the young explorers. Discussion about priority of discovery and rivalry in placenames about some late discoveries which unfortunately rob exploration of its disinterestedness.

**Chadrine N.** - Transports aquatiques de l'Extrême Nord [*De subvectionibus per aquam in extremis regionibus Nordicis*] (En russe). Sov. Sever., 6, 69-74. Moskva (1933). **a - 763**

**Deacon E. R.** - Die Nordgrenzen antarktischen und subantarktischen Wassers im Weltmeer [*De limitibus septentrionalibus aquarum antarcticarum et subantarcticarum in Oceano*]. 3 Abb., 1 Taf. m. 3 Abb., Ann. d. Hydrogr., LXII, 4, 129-136. Berlin (1934). **a - 764**

Wiedergabe eines Vortrags, den der Vf. am 12. Januar 1934 in der Deutschen Seewarte gehalten hat. Die Ausführungen des Vf. gründen sich auf die Ergebnisse der ozeanographischen Messungen der Königl. Britischen Forsschungsschiffe « Discovery », « William Scoresby » und « Discovery II ». Die Nordgrenzen antarktischen und subantarktischen Wassers im Weltmeere haben den Vf. wegen ihres engen Zusammenhanges mit der Frage der Plankton-Verteilung besonders interessiert. In diesem Vortrag schildert der Vf. den Verlauf der antarktischen und der subtropischen Konvergenz um die Südhemisphäre herum, die Bewegungen des ozeanischen Tiefenwassers, die Reichweite des antarktischen Zwischenwassers nach Norden, das antarktische Bodenwasser und den zirkumpolaren Verlauf der potentiellen Bodentemperatur.

**De La Rüe Edgar Aubert** - Étude géologique et géographique de l'archipel de Kerguelen [*Studium geologicum et geographicum archipelagi* Kerguelen]. ill., cartes, diagr., Rev. Géogr. Phys. & Géol. Dyn., 5, 1-231. Paris (1932).

(—) V. aussi : G. W. Tyrrell : « A Monograph on the Kerguelen Archipelago », Geogr. Rev., XXIV, 1, 167-168. Washington (1934). **a - 765**

Après une introduction, dans laquelle il décrit ses expéditions de 1928-29 et de 1931 à l'archipel de Kerguelen, l'A. donne un résumé des travaux traitant de cet archipel et discute sa cartographie. Il passe ensuite à l'étude géographique, et donne un aperçu historique de la découverte et de l'exploration des îles composant l'archipel. Les parties successives de l'ouvrage sont dédiées à la géologie, pétrologie, minéralogie, paléobotanique et climatologie de la région considérée. La dernière partie traite de la morphologie de l'archipel de Kerguelen avec référence spéciale au relief et profil de ses côtes, à son hydrologie, glaciologie et les vents. En illustrant la biogéographie de Kerguelen, l'A. adopte la thèse de la dérive continentale de Wegener, dont il se sert comme hypothèse de travail concernant la raison de la séparation de l'archipel de Kerguelen du continent Antarctique.

**Evghenov N.** - Le détroit de Long ou de de Long [*Fretum* Long *seu* de Long *nomine*] (En russe). Bull. Arct. Inst., 9/10, 294. Leningrad (1933). **a - 766**

Rectification concernant la dénomination du détroit qui porte le nom du capitaine américain Long qui l'a traversé pour la première fois en 1867 sur la baleinière « Nil » et que l'on doit distinguer de l'Ile de Long qui porte le nom du lieutenant de Long de la Marine américaine.

**Evghenov N.** - Vingtième anniversaire de la découverte de la Severnaja Zemlja [*De* Severnaja Zemlja *ventesimo recurrenti anno eius inventionis*] (En russe). Bull. Arct. Inst., 9/10, 290-293. Leningrad (1933).

(—) Voir trad. angl. Bull. Arct. Inst., 11, 377-379. Leningrad (1933). **a - 767**

Histoire de la découverte de l'Archipel par les navires hydrographes « Tajmyr » et « Vajgatch » en 1913. Confirmation de l'éxistence de la Severnaja Zemlja par les travaux de G. A. Ouchakov et de N. N. Ourvantzev et résultats des dernières explorations de cet archipel.

**Ivanov I. M.** - Quelques données sur les oscillations du niveau du bassin polaire [*Dati circa livelli oscillationes bacini polaris*] (En russe). 4 fig., 1 tabl., Zemlevedenije, XXXV, 4, 363-368. Leningrad (1933). **a - 768**

**Kanotorovitsch V.** - Le bolchévique dans l'Arctique [*Fides bolscevica in regionibus Arcticis*] (En russe). 5 fig., Naschi Dositzh., 1, 128-140. Moskva (1934). **a - 769**

Episodes des explorations de G. A. Ouchakov. Description des hivernages sur l'Ile de Wrangel et sur la Severnaja Zemlja.

**Kartzev G., Serghievskij B. & Evghenov N.** - Carte de la Mer Polaire du Nord [*Charta maris Polaris Nordici*]. 3 feuilles, Hydrogr. Dpt. Northern Sea Route, nº 1283. Leningrad (1934). **a - 770**

La carte a été dressée sur une échelle de 1 : 3.000.000 sur le parallèle 75º (Projection de Mercator) et comprend la région entre 54º et 84º lat. N. et 30º - 210º long. W.

(v. Réc. de K. Salistschev, Bull. Arct. Inst., 4, 192-193, 1934).

**Koschkin V. N.** - Present State of the Hut of the « Maud » Expedition on Cape Cheliuskin [*Expeditio ad Promunturium* Cheliuskin] (In Russ., Engl. Summ.). Bull. Arct. Inst., 3, 126-128, 163-164. Leningrad (1934). **a - 771**

Description of the actual state of the « Maud » hut on Cape Cheliuskin which represents a memorial of Amundsen's expedition. Discovery of a note-book, containing the diary of Paul Tessem. Good preservation of the hut. Its exact position 45 km. east from the station on Cape Cheliuskin.

**Kourilovitsch A.** - La Grande Route Maritime du Nord et son importance pour l'économie socialiste de l' U. R. S. S. [*De cursu maritimo nordico eiusque momento pro oeconomia socialista in U. R. S. S.*] (En russe). 1 carte, Plan. Khoz., 1/2, 155-171. Moskva (1933). **a - 772**

**Moltchanov P. A.** - Conditions aérométéorologiques de l'Arctique. Les voies aériennes du Nord [*De condicionibus aërometeorologicis regionum arcticarum. Cursus aërii nordici*] (En russe). Sov. Asija, Recueil d'articles, 411-419. Moskva (1933). **a - 773**

**Osterman H.** - Sjeldne aktstykker fra 18de aarhundredes Grønland [*De raris quibusdam documentis circa Groënlandiam sec. XVIII*º]. Norsk Geogr. Tidsskr., IV, 7, 3, 442-454. Oslo (1933). **a - 774**

Der Vf. gibt hier in extenso einige während seiner Studien im Reichsarchiv zu Kopenhagen gefundene Urkunde wieder, welche die grönländische Besiedlung und die Schiffahrt im Arktischen Meere dazumal beleuchten. Kurze Erläuterungen des Textes.

**Ostroglazov G. I.** - Nouveaux points sur la carte de l'U. R. S. S. [*De novis punctis in tabulis Sovietorum*] (En russe). ill., 222 pp., Edit. Etat, « Molod. Gvardia ». Moskva (1934). **a - 775**

Igarka. Route Maritime du Nord. Expéditions dans la Mer de Kara. Entreprise combinée de l'Igarka.

**Pineghin N.** - Encampment of Schmidt's Expedition on the Ice of the Chukchee Sea [*Castra expeditionis* Schmidt *in glaciebus Maris* Chukchee]. (In Russ. & Engl.). 1 map, 1 fig., Bull. Arct. Inst., 3, 111-115, 148-151 ; 4, 169-173, 206-209. Leningrad (1934). **a - 776**

Account of the story of rescue of Schmidt's party after the wreck of the ice-breaker « Cheliuskin » in the Chukchee Sea. Organization of the rescue, and life in the encampment on the ice-cover of the sea.

**Retovskij L.** - Description of the North-East Passage Expedition on a Soviet Ice-Breaker [*De expeditione per transitus nord-occidentales in navi sovietica glacieiruptrici*] (In Jap.). Nin sei chi ri (Geogr. & Ethnogr.), 1, 18-35. Tokyo (1933). **a - 777**

**Rudakov P. A.** - Norwegian Building on Franz-Joseph Land [*Aedificatio quœdam a Norvegis peracta in terra Francisci Josephi*] (In Russ., Engl. Summ.). 1 fig., Bull. Arct. Inst., 3, 125-126 & 163. Leningrad (1934). **a - 778**

Discovery in 1932 by Captain N. P. Vorotilov of the s/s « Leningrad-soviet » on Cape Forbes, Franz-Joseph Land belonging to Den Norske Frans-Josef Ld. Expedition. Brief description of the building.

**Samoilovich R. L.** - Arctica. Foreword [*Introductio*] (In Russ. & Engl.). Arctica, 1- 3-5. Leningrad (1933). **a - 779**

Foreword to the first volume of a non-periodical magazine, published by the Arctic Institute of U. S. S. R., which would open its pages to papers and short articles that for the character of their contents could not appear in the other publications of the Institute.

**Samoilovitsch R. L.** - Le problème des transports dans l'Arctique Soviétique [*De subvectionibus in regiones arcticas Sovieticas*] (En russe). 3 fig., Boj za Techn., 2, 18-20. Moskva (1934). **a - 780**

**Schoo J.** - De geografische plaatsbepaling van Ptolemaeus aan de Hollandsche Kust [*Determinatio geographica Ptolemaica litorum Hollandicorum*]. 2 Abb., 1 carta, Tijdschr. Kon. Ned. Aardr. Gen., Amsterdam, LI, 1, 35-50. Leiden (1934). **a - 781**

Discussione sui dati di longitudine e latitudine offerti da Tolomeo ; alcune correzioni, spiegazioni ed identificazioni dei nomi geografici. Conclusione dell'A. a riguardo della costa olandese-belga da sud-ovest dello sbocco del Reno a Katwijk, basata su questo studio.

**Swick C. H.** - Progress in Research in Antarctic Waters [*De progressibus in aquis antarcticis inveniendis*]. Geogr. Rev., XXIV, 4, 666-668. New York (1934). **a - 782**

The extraordinary rise in Antarctic whaling in the last decade has occasioned important progress in the knowledge of Antarctic water. Some hints are given here.

**Tchernjak B.** - Chronique des navigations arctiques en 1933 [*Chronica navigationum ad regiones Arcticas a. 1933*] (En russe). Sov. Sever., 6, 89-90. Moskva (1933). **a - 783**

**Teichert Curt** - Ostgrönlands Fjorde. Bilder von der Dreijährigen Dänischen Ostgrönlandexpedition unter Leitung von Dr. Lauge Koch [*De fiordis in Groënlandia orientali. De expeditione a Danis tres annos suscepta in Groënlandiam orientalem, Doct.* Lauge Koch *directore*]. 8 Abb., Nat. u. Mus., LXIII, 12, 407-415. Frankfurt a. M. (1933). **a - 784**

Die Fjorde Ostgrönlands, die zu den grössten der Erde gehören, hat man erst am Ende des 19. Jahrhunderts auszuforschen angefangen. Beschreibung von Scoresby Sund, Kaiser-Franz-Joseph Fjord, Godthaab-Golf u. a. Besiedlung, Expeditionen, Eisverhältnisse, geologische, hydrologische und zoologische Verhältnisse, Entstehung der Fjorde.

**Wiese W. J.** - Andrejew Land [*De terra Andreev*] (In russ., deutsch. Rés.). 2 Abb., Arctica, 1, 7-30. Leningrad (1933). **a - 785**

Ausführliche historische Uebersicht aller Versuche das Gebiet des Andrejew Landes zu erreichen und zu erforschen (1733-1923). Zum Schluss berichtet Vf. über die indirekten Angaben, welche sich zum Vorhandensein oder zum Nichtvorhandensein dieses Landes beziehen, und schliesst seine Arbeit mit der Betrachtung, dass die heutige Entwicklung der Luftschiffahrt sicher das Problem des Andrejew Landes bald lösen wird.

**Wiese W.** - Trading Navigation in the Kara Sea [*De navigatione commercii causa in Mare Karense*]. 1 tabl., Pol. Rec., 6, 90-94. Cambridge (1933). **a - 786**

History of the trade navigation in the Kara Sea which has begun in the XVIth century ; development of trading navigation in the Kara Sea in the last century and at the beginning of the XXth century. First steps taken to establish a regular navigation in the Kara Sea : organization of meteorological radio stations on its shores, giving the possibility to judge of the ice conditions in the sea and to forecast the distribution of the ice during the season of navigation. Measures taken to ensure successful navigation in the Kara Sea. Exploration work carried on in order to enlarge the route of navigation in the Kara Sea. Development of this navigation since 1921.

**Zimmerman M.** - Géographie Universelle : Tome III. Etats Scandinaves, Régions Polaires Boréales [*Geographia universalis. Tomus III.us Nationes Scandinavæ. Regiones Polares Boreales*]. ill., 328 pp., Armand Colin. Paris (1933). **a - 787**

Description de la Norvège et de ses fjords, du Spitzberg, du Groenland, de l'Irlande, de la mer Polaire, de la banquise et de tous les mystères connus et inconnus des régions polaires boréales.

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**Académie des Sciences** - L'Académie des Sciences au XVII-ème Congrès du Parti Communiste. II. Activité expéditionnaire. Compte rendu du Conseil pour l'étude des ressources de l'Union R. S. S. [*De Academia Scientiarum eiusque activitate circa expeditiones scientificas relata ad Congressum XVII.um habitum a fautoribus aequationis bonorum*]. 2 cartes, 64 pp., Acad. Sc. U.R.S.S. Léningrad (1934). **a - 788**

Les régions septentrionales: Novaja Zemlja, Ile Kolgoujev, l'embouchure du fleuve Petchora, l'Oural Subpolaire, les bassins des rivières Mezenj, Poutjatj, Pinega et Kouloj. Bref compte rendu des travaux d' exploration des régions sus-indiquées (16-17). République de la Yakoutie. Liste des travaux exécutés dans la Yakoutie depuis 1925 jusqu'à 1933 (59-62).

**Norsk Polarklubb** - Polar-Årboken 1933 [*Annuarium polare 1933*]. Oslo (1933). **a - 789**

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**V. V.** - Expediciones Norte-Americanas a la region Antarctica [*Expeditiones a Nord-Americanis peractæ in regionem antarcticam*]. Bol. Soc. Geogr. Nac., LXXIII, 12, 819-821. Madrid (1933). **a - 790**

Informacion sobre dos expediciones norte-americanas hacia el Continente Antàrtico, una de ellas con el fin determinado de averiguar si a través de dicho Continente existe algùn paso o estrecho que comunique el mar de Ross en el Mar de Weddell, aun cuando tal paso està siempre cubierto de hielo ; y la otra, con un programa mucho màs ampio, pero incluyendo en él igual objetivo. La primera de estas dos expediciones está dirigida por Mr. Lincoln Ellsworth y la otra expedición por el Contralmirante Byrd.

**V. V.** - The Position of Lonely Island (Ujedinenije) [*De positione insulæ Solitariæ*] (In Russ. & Engl.). Bull. Arct. Inst., 1, 11, 43. Leningrad (1934). **a - 791**

Geographical coordinates of the island received from the astronomer of the expedition on the « Cheljuskin ». Divergency of opinions concerned with the Lonely Island of the island discovered and indicated on the map by Johannessen.

**An.** - Stations polaires de l'U. R. S. S. [*Stationes polares ad U. R. S. S. pertinentes*]. (En russe & angl.). Bull. Arct. Inst., 9/10, 297 & 324. Leningrad (1933). **a - 792**

Rapport de la station sur l'Ile de Roudolphe, de la station des Iles de S. Kamenev et de celle du Cape Tchéljouskine.

**An.** - Deuxième Année Polaire Internationale [*Agitur de secundo anno polari internationali*]. (En russe). Bull. Arct. Inst., 9/10, 298-300. Leningrad (1933). **a - 793**

Stations finnoises de la Deuxième Année Polaire Internationale. Participation de la Norvège à l'Année Polaire Internationale. Station française à Skoresbysund. Station autrichienne à Jean Mayenne. Station allemande à Asouka (Groenland). Station américaine au Groenland occidental. Station américaine du Fairbanks College. Station anglaise à Fort Ray. Participation du Canada. Station canadienne à Chesterfield-Inlet ; id. à Coppermine et à Houl-Edvance.

**An.** - Stations polaires de l' U. R. S. S. [*Stationes polares ad U. R. S. S. pertinentes*] (En russe). Bull. Arct. Inst. 11, 356-358. Leningrad (1933). **a - 794**

Bref compte rendu sur l'activité des stations à Barentsbourg (Spitzbergen), dans la Baie Tikhaja (Ile Hooker), Russkaja Gavanj (Novaja Zemlja), cap Zhelanije (Novaja Zemlja), Matotchkine Char (Nov. Zemlja), l'île Vajgatch, Jougorskij Char et Maré-salé (péninsule de Yamal), sur l'Ile Belaja (Mer blanche) (trad. angl.), dans l'observatoire de l'Ile Dickson, sur le cap Tchéljouskine, la baie de Tixi etc. (Quelques uns des comptes rendus sont traduits en anglais).

**An.** - Polar Stations [*Stationes polares*] (In Russ. & Engl.). Bull. Arct. Inst., 12, 427-428, 462-463. Leningrad (1933). **a - 795**

Account of the work carried out on the Stations on Bear Islands, Samuel Islands, Uellen, Cape Tcheljuskin, Cape Desire (Zhelanije) and Dickson Island.

**An.** - Isvestyj CEC (Information of Central Executive Committee) and Arctic Institute Islands [*Insulæ* Izvestij Tzentraljnovo Ispolniteljnovo Komiteta. *Notitiæ Comitati secutorii Centralis et Instituti Arctici*] (In Russ. & Engl.). Bull. Arct. Inst., 1, 10-11, 42. Leningrad (1934). **a - 796**

Geographical coordinates of the astronomical points determined by the astronomer of the expedition on the « Sibirjakov » on the above mentioned Islands. Both astronomical points have been designed by marks.

**An.** - Polar Stations of U. S. S. R. [*Stationes polares ad U. R. S. S. pertinentes*] (In Russ. & Engl.). Bull. Arct. Inst., 1, 19, 46-47. Leningrad (1934). **a - 797**

Account of the work and activity of the polar station on White Island, Tixy Bay and Cape Severnyj (North Cape).

**An.** - Stations Polaires de l'U. R. S. S. [*Stationes polares ad U. R. S. S. pertinentes*] (En russe). Bull. Arct. Inst., 3, 134-135. Leningrad (1934). **a - 798**

Emploi de l'avion à l'Observatoire de la Baie Tikhaia (Ile Houker). Organisation d'une expédition ayant pour base l'Ile Samouile à travers la Baie homonyme. Exploration à

l'aide d'avion à la station du Cap Tchéljouskine ; électrification du village auprès de la Station Polaire dans la Baie de Tixi dans l'embouchure du fleuve Léna ; coordonnées de la Station Polaire de Ouelen.

**An.** - Norges Svalbard - og Ishavsundersökelser. Scientific Expeditions, Topographic and Hydrographic Work and Publication of Charts during 1933 [*Expeditiones scientificæ ad* Svalbard. *Opera hydrographica et topographica. De chartis editis a. 1933*]. Bull. Hydr. Int., 11, 191-193. Monaco (1933). **a - 799**

An account is given on the program of three Arctic expeditions to be equipped by the Norges Svalbard- og Ishavsundersökelser, with especial reference to the expedition to Eastern Greenland under Prof. Adolf Hoel, who left Oslo on board the sealer « Polarbjörn » on the 24th June and returned to Ålesund on August 27th. A short report of the work performed by this expedition is given. List of the arctic charts issued by the Institution during the year 1933.

**An.** - Expedition to Southern Taimyr (Siberia) [*De expeditione in regionem meridionalem pœninsulæ* Taimyr]. Int. Hydrogr. Bull., IV, 82-83. Monaco (1934). **a - 800**

Brief account of the Igolkin expedition equipped for the purpose of studying the Northern Sea Routes towards the southern areas of the Taimyr Peninsula (Siberia).

**An.** - New Land in the Antarctic. The New Coast-Line of Antarctica [*De nova quadam terra in Antarctide. Linea nova litorea Antarctidis*]. Nature, CXXXIII, 3359 & 3361, 409 & 491. London (1934). **a - 801**

On the discovery of a new stretch of coast line 150 miles in extent made by Consul Lars Christensen.

**An.** - Arctic Regions : Svalbard, Franz Josef Land, and Russian Arctic Regions [*Regiones arcticae :* Svalbard ; *Terra Francisci Josephi, regionesque arcticæ Russæ*]. Pol. Rec., 5, 6-24. Cambridge (1933). **a - 802**

Soviet Union Expeditions, 1931 and 1932. Serge Kamenew Islands Research Station, 1930-32. Soviet Polar Year Stations, 1932-33. Cambridge Spitsbergen Expedition, 1932. Norwegian Hydrographic Expedition, 1932. Glacier Measurements in Spitsbergen, 1932. Cambridge Bear Island Expedition, 1932. British Polar Year Station at Tromsö, 1932-33. Polar Year Stations in the Svalbard Sector of the Arctic, 1932-33.

**An.** - Greenland [*De Groënlandia*]. Pol. Rec., 5, 25-42. Cambridge (1933). **a - 803**

Danish Three Year Expedition to East Greenland, 1931-34. Dr. Knud Rasmussen's Expedition, 1932. Captain Ejnar Mikkelsen's Expedition to East Greenland, 1932. Mr. Watkins' Expedition to East Greenland, 1932-33. Norwegian Expeditions to East Greenland, 1932. Cambridge Expedition to Vatnajökull, 1932. German Expedition to Vatnajökull, 1932. Peary Memorial Expedition to Cape York, North-Western Greenland. French Polar Year Expedition to East Greenland, 1932-33. University of Michigan Expedition, 1932-33. Other Polar Year Stations in the Greenland Sector, 1932-33. Norwegian Crossing of Greenland, 1931.

**An.** - Arctic Canada and Labrador [*De arctica regione Canadensi deque* Labrador]. Pol. Rec., 5, 43-51. Cambridge (1933). **a - 804**

British Polar Year Expedition to Fort Rae, 1932-33. Williams-Maris Expedition to Fort Conger, 1932-34. Canadian Arctic Patrols, 1932. Dr. H. K. E. Krüger's Expedition to Ellesmer Island, 1930. Canadian Polar Year Stations, 1932-33. Polar Year Stations in the United States and Alaska, 1932-33. Transfer of Reindeer Herds into Canada.

**An.** - Antarctic Regions [*Regiones antarcticæ*]. Pol. Rec., 5, 52-55. Cambridge (1933). **a - 805**

Ellsworth Antarctic Expedition. The Work of the « Discovery II ». Norwegian Antarctic Expedition, 1933-34.

**An.** - Arctic Regions : Svalbard, Franz Josef Land, and Russian Arctic Regions [*Regiones arcticæ.* Svalbard, *Terra Francisci Josephi regionesque arcticæ Russæ*]. Pol. Rec., 6, 71-89. Cambridge (1933). **a - 806**

Swedish-Norwegian Expedition to the North-East Land, 1931. Soviet Union Expeditions, 1931 and 1932. Soviet Union Expedition, 1933. Soviet Polar Year Stations, 1932-33. Oxford University Arctic Expedition, 1933. Norwegian Expedition to Spitsbergen, 1933. Polish Polar Year Expedition, Bear Island, 1932-1933. Finnish Polar Year Stations, 1932-33. Norwegian Polar Year Stations, 1932-33.

**An.** - Greenland [*De Groënlandia*]. Pol. Rec., 6, 95-111. Cambridge (1933). **a - 807**

Sixth and Seventh Thule Expeditions, 1931 and 1932. Danish Three Year Expedition to East Greenland, 1931-34. British Greenland Survey Expeditions, 1932-33. French Polar Year Station, Scoresby Sound, 1932-33. Cambridge East Greenland Expedition, 1933. Louise A. Boyd Expedition to East Greenland, 1933. Dutch Polar Year Station, Angmagssalik, 1932-33. Norwegian Expedition to East Greenland, 1933. Norwegian Polar Year Stations in Greenland, 1932-33. Norwegian Expedition to South-East Greenland 1933. University of Michigan Expedition to West Greenland, 1932-33. German Polar Year Station, Arsuk, South-West Greenland, 1932-33. Dutch Aerological Station, Reykjavik, 1932-33. Polar Year Station, Snaefellsjökull, Iceland, 1932-33. Austrian Polar Year Station, Jan Mayen, 1932-33.

**An.** - Arctic Canada, Labrador, and Alaska [*De arctica regione Canadensi*, Labrador *et* Alaska]. Pol. Rec., 6, 111-122. Cambridge (1933). **a - 808**

British Polar Year Station, Fort Rae, 1932-33. Krüger Search Expeditions, 1931-32. Admiralty Surveys in Labrador. U. S. Navy Aleutian Islands Survey Expedition, 1933. Danish-American Archaeological Expedition to Alaska, 1933. Hubbard Alaskan Expedition, 1933. Canadian Polar Year Stations, 1932-33. Polar Year Stations in the United States and Alaska, 1932-33. Transfer of Reeindeer Herds into Canada, 1929-33. Mr Finnie's Expedition to Coronation Gulf, 1932-33.

**An.** - Antarctic Regions [*Regiones antarcticæ*]. Pol. Rec. 6, 123-126. Cambridge (1933). **a - 809**

Ellsworth Antarctic Expedition, 1933-34. Norwegian Antarctic Expedition, 1933. Byrd Antarctic Expedition, 1933-34. Norwegian Polar Year Observations in the Antarctic, 1932-33.

**An.** - (Polar Questions) [*Introductio in quæstiones polares*]. Pol. Rec., 7, 1-2. Cambridge (1934). **a - 810**

Rapid progress of the new building of the Polar Research Institute. Its financial conditions. Proof of general revival of interest in the polar regions. The exhibition of Russian Arctic Regions in Leningrad.

**An.** - Greenland [*De Groënlandia*]. Pol. Rec., 7, 33-51. Cambridge (1934). **a - 811**

Danish Three-Year Expedition to East Greenland, 1931-34. British Greenland Survey Expedition, 1932-33. French Polar Year Station, Scoresby Sound, 1932-33. Dr. Charcot's East Greenland Expedition, 1933. Cambridge East Greenland Expedition, Hurry Inlet, 1933. Dutch Polar Year Station, Angmagssalik, 1932-33. « Nordkap II » Expedition, 1933. Norwegian Expedition to East Greenland, 1933. Norwegian Polar Year and Radio Stations in East Greenland, 1932-33. University of Michigan Expedition to West Greenland, 1932-33. German Polar Year Station, Arsuk, South-West Greenland, 1932-33. Dr. Mathiassen's Work in West Greenland, 1933. Dutch Aerological Station, Reykjavik, 1932-33. Polar Year Station, Snaefellsjökull, Iceland, 1932-33. Miss Smith's Expedition to Vatnajökull, Iceland, 1933. Volcanic Activity in Iceland, 1933. Austrian Polar Year Station, Jan Mayen, 1932-33. « Meteor » Expedition to Iceland and East Greenland, 1933.

**An.** - Arctic Canada, Labrador, and Alaska [*Regiones arcticæ*]. Pol. Rec., 7, 63-74. Cambridge (1934). **a - 812**

British Polar Year Station, Fort Rae, 1932-33. Canadian Arctic Patrols, and Krüger Search Expeditions, 1931-33. Admiralty surveys in Labrador. Danish-American Archaeological Expedition to Alaska, 1933. Hubbard Alaskan Expedition, 1933. Bartlett-Norcross Expedition, 1933. Canadian Polar Year Stations, 1932-33. Polar Year Stations in the United States and Alaska, 1932-33. Miss Hutchinson's Expedition to the Aleutian Islands, and Point Barrow, 1933.

**An.** - Antarctic Regions [*Regiones antarcticæ*]. 1 map., Pol. Rec., 7, 81-87. Cambridge (1934). **a - 813**

Ellsworth Antarctic Expedition, 1933-34. Byrd Antarctic Expedition, 1933-34. Plans for R. R. S. « Discovery II ». The Graham Land Expedition, 1934-37.

**An.** - Exploration of the Antarctic [*De regionibus antarcticis exploratis*]. Science, LXXIX, 2047, 264-265. New York (1934). **a - 814**

About a British expedition to the Antarctic which will start next autumn, under the leadership of John R. Rymill.

## Relevationes hydrographicae (geodeticae, topographicae, bathymetricae) - Instrumenta hydrographica et bathymetrica - Naves hydrographicae.

**Adams Oscar S.** - Plane Coordinates Systems [*De systhematis coordinatarum planarum*]. U. S. Dpt. Comm., Coast & Geod. Surv., Ser. nº 562, 1-6. Washington, D. C. (1933). **a - 815**

The author studies the possibility of establishing plane coordinates systems for more extended area, as it has been used until now, so as to provide the advantages of plane coordinates and at the same time to make possible a perfect coordination of the work of different engineers throughout the whole region for which one system is adequate.

**Albertario L.** - Un nuovo teodolite topografico Salmoiraghi [*Teodolitis novus topographicus e systhemate* Salmoiraghi]. La Filotecnica, 6, 181-190. Milano (1932). **a - 816**

Descrizione delle caratteristiche e del funzionamento dell'istrumento.

**Argentieri D.** - Verifica e rettifica trigonometrica d'un obbiettivo [*Inspectio et emendatio trigonometrica lenticulæ photographicæ*]. La Filotecnica, 6, 187. Milano (1932). **a - 817**

Limitandosi al caso semplice di un obbiettivo da cannocchiale, che deve rispondere a solo quattro condizioni, si dà un esempio pratico del procedimento da seguire per la messa a punto di tale sistema ottico.

**Avers N. G.** - The Determination of Elevations [*Elevationum determinatio*]. Bull. Nat. Res. Counc., 78. 212-220. Washington (1931). **a - 818**

After a demonstration of the importance of determination of elevations, the author describes the various methods of levelling and determination of relative elevations, the classification of levelling, the fundamental level net, its reference to mean sea-level and the deviations of the mean sea-level surface from a level surface, which are small, but introduce a complicating factor in the geodesist's work of spreading nets of precise level lines over large areas. The fact of the deviation and its magnitude are discussed in the last part of the paper.

**Beer Arthur** - Hochseepegel [*De scandaliis in mare altum*]. 5 Abb., 1 Tab., Naturwiss., XXI, 51, 890-894. Berlin (1933). **a - 819**

Eingehende Beschreibung eines neuen ozeanographischen Apparates, des neuen Askania-Hochseepegels nach Rauschelbach, der die Ermittelung der vertikalen Komponente der Gezeiten des Meeres ermöglicht und der gerade dort angewendet werden kann, wo die Aufstellung normaler Registrierpegel nicht möglich oder nur mit grossen Kosten verbunden ist. Kurze Uebersicht der Gezeitenlehre und der damit zusammenhängenden Instrumente.

**Beltchenko K.** - Sur la hydrologie du Golfe de Karkinit [*De hydrologia Sinus* Karkinit]. Rev. üb. Hydrogr., 2. Leningrad (1933). **a - 820**

**Bianchi D'Espinosa Rodolfo** - Nuovi studi ed orientamenti nell'attività dell'Istituto Geografico Militare [*Studia nova orientationesque Instituti geographici Militaris*]. Atti Soc. It. Progr. Sc., XXII Riun., II, 1933, 83-101. Roma (1934). **a - 821**

Rassegna delle attività dell'Istituto Geografico Militare nel campo geodetico e geofisico. Revisione della rete geodetica di primo ordine. Nel campo delle determinazioni magnetiche. Partecipazione dell' Istituto Geogr. Militare alla Campagna internazionale delle longitudini. Nel campo della fotogrammetria terrestre ed aerea. Macchine di presa. Fotogoniometro Santoni, Triangolatore, triangolazione aerea. Il restitutore. Applicazioni fin qui fatte dall'aerofotogrammetria. Il metodo Santoni dal punto di vista dell'esattezza raggiungibile. Lavori per la tenuta al corrente della cartografia militare. Cenno sulle novità più salienti nell'Ist. Geogr. Militare. L'Ist. Geogr. Militare nella predisposizione dei lavori di più diretta utilità nazionale.

**Blokhin N.** - Lunette des passages transportable de Bamberg avec micromètre impersonnel pour la détermination du temps. Recherches sur son degré de précision [*Telescopium transitus registrans, micrometro impersonali praeditum*] (En russe). 5 fig., 14 tabl. Sborn. Stat. Astron. Géod. Vopros., App. à la revue « Ghéodézist », 12-60. Moskva (1932). **a - 822**

L'A. renvoie pour la description de la lunette elle-même à la publication d'Ambroun dans l' « Astronomische Instrumentenkunde » et s'arrête particulièrement sur la description et le fonctionnement du micromètre impersonnel dont il illustre les erreurs progressives, les erreurs périodiques de la jauge, détermine la largeur du contact électrique et la marche à vide. Les chapitres IV et V traitent des recherches sur le niveau et des bases de la méthode de la détermination du temps à l'aide de la lunette des passages sur le méridien avec référence spéciale à l'équation fondamentale, à l'erreur accidentelle dans l'observation du passage des astres, à la détermination de l'inclinaison de l'axe horizontal, à celle de l'erreur moyenne admise a priori d'une détermination de la correction de l'horloge, et aux observations et calculs exécutés avec le micromètre impersonnel avec leurs vérifications a posteriori.

**Borden F. S.** - United States Coast and Geodetic Survey [*Relevamenta geodetica et litorea Provinciarum Foederatarum Americæ*]. Rep. Comm. Submar. Config. & Ocean. Circul., Nat. Res. Counc, 1932, 19-22. Washington, D. C. (1932). **a - 823**

Improvement of technique : further development of radio acoustic methods for fixing position for soundings in offshore areas. General statement : 76.000 miles of sounding lines comprising an area of 93,000 square miles have been run by the vessels of the U. S. Coast and Geodetic Survey, and over 780.000 soundings have been taken in North Atlantic Ocean, Western Pacific, Philippine Islands, and Northeast Pacific.

**Bowie W.** - The Use of Laplace Azimuths in the Adjustment of Triangulation [*De utendis azimut Laplacianis ad triangulationem corrigendam*]. Bull. Géod., 39, 237-249. Paris-Toulouse (1933). **a - 824**

After a brief summary of the different systems to perform triangulation work the author emphasizes in his conclusions the following three points : 1) Although the use of Laplace stations in triangulation adjustments may not entirely prevent the swerving of arcs of triangulation from true directions, the results are so nearly perfect that one may accept the present method of using Laplace azimuths as being quite accurate ; 2) The adopted position of Meades Ranch is very close to the ideal value ; 3) The use of the Clarke instead of the Hauford spheroid has not in any way affected the usefulness of the triangulation data for engineering, surveying and mapping purposes.

**Bowie W.** - Surveying and Mapping the United States [*Relevamenta et chartæ ad Americæ Provincias Foederatas pertinentes*]. Milit. Engr., Sept.-Oct., 386-389. Washington (1933). **a - 825**

**Buchar E.** - Un appareil simple pour mesurer l'équation personnelle dans les observations aux instruments des hauteurs égales [*Apparatus simplex ad æquationem personalem mensurandam in observationibus per instrumenta æquali altitudine*]. Bull. Géod., 38, 167-172. Toulouse-Paris (1933). **a - 826**

**Campa Maria** - Studio delle viti di un apparecchio Troughton e Simms [*De cochleis cuiusdam apparatus e systhemate* Troughton *et* Simms]. Mem. Soc. Astr. It., VII, 1, 51-58. Milano (1933). **a - 827**

È una ricerca eseguita allo scopo di determinare gli errori progressivi e periodici delle due viti di misura (ascensione retta e declinazione) di un micrometro adoperato durante l'ultima opposizione del pianetino Eros (1930-31). Il metodo è basato sulla misura di un intervallo costante, eguale a poco più di una rotazione, per tutti i passi e nei due sensi delle viti, in corrispondenza di posizioni del micrometro differenti di 180°. Gli errori progressivi e periodici sono stati ricavati dallo stesso insieme di misure raggruppate e trattate differentemente nei due casi.

**Campo Michele** - La scuola di Topografia dell'I. G. M. [*De schola topographica ad Institutum Geographicum Militare pertinens*]. 2 fig., 7 tav. f. t. L'Universo, 10, 575-586. Firenze (1932). **a - 828**

L'A. espone ampiamente i programmi e i metodi seguiti nei corsi di topografia che si tengono annualmente all'I. G. M.; mette in evidenza ed illustra i risultati che si conseguono e dimostra che la scuola è più che utile, necessaria alla formazione non solo di provetti operatori, ma anche di esperti capi sezione.

**Cassinis Gino** - L'opera di Ignazio Porro documentata all'Esposizione di Chicago [*De operibus Ignatii* Porro *ex documentis in expositione Cicagensi*]. La Filotecnica, n° 4. Milano (1933). **a - 829**

Contributo di Ignazio Porro al perfezionamento degli strumenti topografici e dei metodi di misurazioni geodetici, che ha una importanza universale ; descrizione dei modelli originali degli strumenti costruiti dal Porro esposti a Chicago.

**Cassinis G. & Dore P.** - Tables fondamentales pour les réductions des valeurs observées de la pesanteur [*Tabulæ fundamentales pro reductione valorum gravitatis observatorum*]. (Édition provisoire présentée à la Commission internationale de la Pesanteur. Lisbonne 1933). R. Comm. Geod. Italiana. Milano (1933). **a - 830**

Il fascicolo contiene in edizione provvisoria con le pagine non numerate, le tavole per le riduzioni dei valori della gravità per la Terra sferica. Nella premessa gli AA. dànno qualche ragguaglio sul procedimento seguito nei calcoli e sul modo d'impiego delle tavole nei differenti casi.

**Chandon E., De Volontat R. & Gougenheim A.** - Appareils de mesure de l'équation personnelle absolue dans les observations à l'astrolabe à prisme [*Apparatus ad æquationem absolutam personalem mensurandam in observationibus, astrolabii prismatici auxilio solutis*]. 4 fig., 4 tabl., Bull. Géod., 40, 285-305. Paris-Toulouse (1933). **a - 831**

Notions précises sur l'équation personnelle dans les observations à l'astrolabe à prisme. Historique des appareils de mesure des équations personnelles. Méthode d'expérimentation. Principe commun aux appareils destinés à mesurer cette équation personnelle. Appareils à collimateur. Appareils visuels. Comparaison des résultats fournis par les divers appareils et conclusions.

**Colman J.** - The Woods Hole Oceanographic Institute. Sonic Soundings [*Institutum oceanographicum in* Woods Hole. *Scandalia acustica*]. Geogr. Journ., Oct., 326-336. London (1933). **a - 832**

**Conti Mario** - L'analisi fisica dei vetri [*De analysi physica vitrorum*]. 17 fig., Ind. Vetro e Ceram., seconda serie, n. 1, 2, 5, 6, 7, 26-29, 55-59, 202-205, 230-234, 294-298. Milano (1933). **a - 833**

L'A. tratta dell'analisi fisica dei vetri, delle varie prove tecniche interessanti l'industria vetraria, e precisamente della determinazione del coefficiente di dilatazione dei vetri. Tratta poi delle altre prove relative all'analisi fisica e cioè : le prove di omogeneità che l'A. divide in due categorie : prove visuali e prove fotografiche ; e lo studio delle relazioni tra caratteristiche fisico-ottiche e chimiche dei vetri.

**Del Lungo Carlo** - Nuova livella idropneumatica sensibilissima [*Livella nova hydropneumatica ipersensibilis*]. 1 fig., Ric. Scient. (Boll. Com. Naz. It. per la Geol. e Geof., II, 5/6, 50-52. Roma (1933). **a - 834**

Viene descritto un dispositivo di grandissima sensibilità costruito dall'A. alcuni anni fa per misurare piccole variazioni di inclinazione del suolo o di direzione della verticale.

**Digiesi Domenico** - Studio sul passaggio fra due reti geodetiche di stadi limitrofi [*De transitu inter duas retes geodeticas nationum finitimarum*]. 1 fig., 1 graf. f. t., Universo, a. XIII, 6, 299-308. Firenze (1932). **a - 835**

L'A. partendo dalle serie di Legendre, ottiene, differenziando, due formule che permettono il passaggio tra due reti geodetiche di Stati limitrofi, e calcola le coordinate geografiche ellissoidiche di Monte Thabor, nel sistema italiano, partendo da quelle note nel sistema francese.

**Digiesi Domenico** - Sulla forma e dimensioni della Terra [*De Terræ forma ac dimensionibus*]. Studio sui primi metodi di ricerca e sui lavori eseguiti, 1 fig., Universo, a. XV, 7, 565-569. Firenze (1934). **a - 836**

Accennando alle prime due ipotesi sulla forma della Terra, l'A. passa in rassegna le diverse misure eseguite dai tempi di Eratostene a quelle del secolo XVIII, con particolare trattazione del metodo proposto da Tolomeo. Per la misura eseguita da Posidonio dimostra che il risultato fu di 180.000 stadii ; con riferimenti esatti, fa poi rilevare che Cristoforo Colombo usò il valore della misura araba, valore noto in Italia già dai tempi di Dante.

**Field Richard M.** - Gravity Expedition in Cuba [*De expeditione quadam ad Insulam Cubam gravimetriæ causa*]. Science, LXXVIII, 2010, 7. New York (1933). **a - 837**

Short note on the 79 gravity stations completed in Cuba between January 7 and May 3, principally in the Provinces of Havana, Matanzas, Santa Clara and Camagüey.

**Flechter Alfredo** - Rilevamenti aerofotogrammetrici dell'Istituto Geografico Militare [*Relevamenta aëriophotogrammetrica ab Instituto Geographico militari peracta*]. 2 fig., 5 f. t., una cart., Universo, 8, 605-613. Firenze (1933). **a - 838**

L'A. enumera ed illustra i lavori di rilievo aerofotogrammetrico compiuti dall'Istituto fra il 1927 e il 1932 col sistema Santoni, e ne trae argomento per lumeggiare le brillanti applicazioni per le quali l'aerofotogrammetria ormai si impone nei rilievi della superficie terrestre.

**Forni G.** - Sulle coordinate geografiche dei punti della Corsica [*De coordinatis geographicis aliquorum punctorum in Corsica*] Riv. Maritt., 3, 295-300. Roma (1933). **a - 839**

Premesso un rapido cenno storico sull'idrografia della Corsica, l'A. riferisce i risultati delle sue ricerche intorno a pubblicazioni francesi dell'ing. Hart, e di Helbronner su coordinate geografiche di punti della costa della Corsica.

**Garner C. L.** - Progress of Geodetic Work During the Past Year [*De progressibus in operibus geodesicis anno elapso*]. 2 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 58-63. Washington, D. C. (1933). **a - 840**

Account of the geodetic work, consisting largely of the work of the United States Coast and Geodetic Survey and comprising the determination of gravity, astronomical latitudes, longitudes and azimuths, observations for the variation of latitude, base-measurements, triangulation, and levelling. Accomplishment for both field and office work for the past year, 1932.

**Gennaro A. & Pacella G. B.** - La latitudine dell'Osservatorio di Trieste [*De latitudine Observatorii Tergestini*]. Pubbl. R. Oss. Astr. di Trieste, I, 1, 1-14. Trieste (1934). **a - 841**

Sono descritti i lavori svolti ed il metodo prescelto per la determinazione, con tutto il rigore consentito agli AA. dai mezzi a loro disposizione, della latitudine dell'Osservatorio di Trieste, di cui finora non si aveva che un valore provvisorio.

**Gennaro Ida** - Collegamento geodetico della nuova Specola dell'Università di Genova alla rete di 1° dello Stato [*De colligatione geodetica novæ Speculæ Universitatis Genuensis cum rete nationali primi gradus*]. Atti R. Acc. Sc. Torino (Cl. Sc. Fis., Mat. e Nat.), LXVIII, 1/2/3, 24-34. Torino (1933). **a - 842**

In questo lavoro viene riferito sulle operazioni e sui calcoli, per ricavare le coordinate geografiche della nuova Specola geodetica della Università di Genova. La deduzione in sostanza è la riduzione al nuovo centro delle coordinate della vecchia Specola precedentemente determinate dal prof. U. Barbieri nel 1908.

**Gherardi W. R.** - Travaux océanographiques effectués par le Service Hydrographique et par la Marine des Etats-Unis d'Amérique au cours de l'année 1932 [*De operibus oceanographicis peractis a Servitio Hydrographico atque Classe Provinciarum Foederatarum Americæ a. 1932*]. Rev. Hydrogr., XI, 1, 31-34. Monaco (Princ.) (1934). **a - 843**

Extrait et traduit des « Transactions of the American Geophysical Union », 14th Annual Meeting, April 27-29, 1933, p. 180. Washington D. C. (1934).

**Giaquinta S.** - Campo di visione nelle lenti bifocali e loro esatto montaggio [*Visus in vitris bifocalibus. Agitur etiam de eorum perfecta dispositione*]. 5 fig., La Filotecnica, 2, 122-124. Milano (1932). **a - 844**

Viene mostrata la tecnica del montaggio affinchè le due zone di visione abbiano ad essere conciliate insieme nel modo migliore.

**Gougenheim A.** - Mission Hydrographique de l'Indo-Chine 1930-1931 [*De missione hydrographica Indo-Sinensi 1930-1931*]. ill., 48 pp., Imprim. Nat. Paris (1933). **a - 845**

**Gruber (von) O.** - Collected Lectures and Essays [*Collectio conferentiarum et publicationum*]. ills., 470 pp., Chapman & Hall. London (1932). **a - 846**

**Grupelli Enrico** - Rilevamento topografico in Sicilia [*Relevamenta topographica in Sicilia*]. 5 fot. Universo, 12, 771-719. Firenze (1932). **a - 847**

Relazione sui lavori — diretti dall'A. — che l'Istituto geografico militare riprese nel 1931 per i rilevamenti topografici in Sicilia, e che erano stati sospesi nel marzo 1930. Furono eseguite rilievi al 25.000 ed anche rilievi al 5.000 per conto dell'Ente Autonomo degli Zolfi.

**Guarducci F.** - Sulla osservazione di stelle nell'Almucantár del Polo [*De stellarum observatione*]. Memorie Soc. Astron. Ital., VII, 3. Milano (1933). **a - 848**

Memoria postuma in cui sono descritti metodi semplici per determinazioni, isolate o associate, di latitudine, azimut e tempo. Detti metodi si basano sulla osservazione al filo orizzontale del reticolo di una stella ad una distanza zenitale uguale alla colatitudine del luogo di stazione (passaggio all'Almucantár del Polo). L'A. dà gli sviluppi analitici dei metodi e le norme pratiche per la preparazione delle osservazioni.

**Henry J.** - Réduction d'une sonde [*De reductione cuiusdam scandalii*]. 1 fig., Bull. Soc. Océanogr. France, 78, 1371. Paris (1934). **a - 849**

Illustration, suivie d'un exemple pratique, d'une méthode graphique qui permet de réduire rapidement une sonde, lorsqu'on connaît : l'heure de la pleine mer, l'unité de hauteur et le coefficient de la marée.

**Hinks Arthur R.** - Maps and Survey [*Chartæ et relevamenta*]. maps, diagr., ills., xiv & 283 pp. Univ. Press. Cambridge. The Macmillan Co., New York (1933). **a - 850**

Third, for the most part rewritten, edition of the study of maps and the processes of survey by the secretary of the Royal Geographical Society, containing also a brief history of early maps as a preface to the chapter on the modern map. The author describes then the published maps : British official maps, international maps, maps of Europe, other foreign maps, and charts and atlases. The rest of the book is devoted to survey operations and the final chapter deals with survey instruments developed since the war. It includes the new theodolites, prismatic astrolabes, geodetic pendulums, and stereoplotters.

**Hristoff Wl. K.** - Einige Bemerkungen zu Krügers Koordinaten-Transformationen [*Notæ de conversione coordinatarum Krugerii*]. Ztschr. f. Vermessungswesen, 15 Juli, 329-331. Stuttgart (1933). **a - 851**

**Iselin Columbus** - Summary of Hydrographic Observations Taken from « Atlantis » on Voyage from Plymouth, England, to Woods Hole [*Com-*

*pendium observationum hydrographicarum navi « Atlantis » peractarum perdurante navigatione a Plymouth ad Woods Hole*], Woods Hole Ocean. Inst., Rep. 1930-32, 32-33. Massachusetts (1933). **a - 852**

**Jelstrup Hans S.** - Détermination astronomique de Mygg-Bukta au Groenland oriental [*Determinatio astronomica regionis* Mygg-Bukta *in Groënlandia orientali*]. 7 fig., 1 carte, Norg. Svalbard o. Ish.-unders, Skr. Svalbard, o. Ish., 50, 1-44. Oslo (1932). **a - 853**

I. Partie descriptive. Avant-propos. Description des appareils. Travaux préparatoires aux observations. Méthodes d'observation. Méthodes de calcul ; II. Séries complètes de déterminations astronomiques. Détermination de quelques constantes instrumentales. Détermination de latitude. Détermination de longitude et d'azimut. Tableau des résultats obtenus. Remarques finales.

**Jelstrup Hans S.** - Détermination astronomique à Sabine-Øya au Groenland oriental avec discussion touchant une dérive continentale possible [*Determinatio astronomica in* Sabine-Øya *in Groënlandia orientali cum discussione de possibili declinatione continentali*]. 1 fig., Norg. Svalbard-o. Ish. undera., Skr. Svalbard o. Ish., 58, 1-27. Oslo (1933). **a - 854**

I. Avant-propos sur les préparations et le but de l'expédition ; II. Séries complètes de déterminations astronomiques. Détermination de longitude et d'azimut. Détermination de latitude. Discussion sur la dérive éventuelle des continents suivant les théories de Wegener.

**Jordan W.** - Handbuch der Vermessungskunde. II. [*Liber manualis de Geodesia. Volumen alterum*]. Taf. - Bull. Hydrogr. Int., 1, 17-18. Monaco (1933). **a - 855**

IX. Ausgabe des zweiten Halbbandes von dem zweiten Bande des monumentalen Werkes, welcher die folgenden Kapitel enthält: geodätische und barometrische Vermessungsmethoden, Tachymetrie, Photogrammetrie und Vermessungen für Eisenbahnprojekte. Das letzte Kapitel gibt eine historische Übersicht des Vermessungswesens in Deutschland, und außerdem ist eine Reihe von numerischen Tabellen veröffentlicht worden. (Nach der Rez. von P. V.),

**Lappo** - Hydrographical Work of the Lena-Khatanga Expedition in the Laptev Sea on Board the Schooner « Pioneer » during the Navigation of 1933 [*Opus hydrographicum peractum perdurante expeditione ad Lena-Khatanga, More Laptev nomine, in navi « Pioneer »*]. In Russ., Engl. Summ.). Bull. Arct. Inst., 1, 5-7, 36-37. Leningrad (1934). **a - 856**

Results of the exploration of the water discharge of the Lena River near the Bulun ; establishment of water-gauge posts ; surveying of the [illegible] Bay ; topographical survey of the [illegible] on a distance of about [illegible] km ; [illegible] of the Khatanga and Anabar Bays ; exploration of areas corresponding to blanks in the map of the surveyed region ; determination of currents and of the range of the tide in Nordwick Bay ; meteorological observations, measurements of surface water temperature.

**Leoni Ugo** - Il micrometro Loschi [*De micrometro a systemate Loschi*]. La Filotecnica, 4 ill., 6, 184-185. Milano (1932). **a - 857**

Considerazioni critiche sulla lettura dei micrometri.

**Leroux M.** - Comparaison de Tubes dynamiques de Pitot [*De tubis dynamicis. Comparatio*]. C. R. Acad. Sc., CIIC, 12 Juin, 1778-1780. Paris (1933). **a - 858**

**Loschi Edoardo** - Studio sui micrometri tacheometrici [*De micrometris tacheometricis*]. 6 fig., La Filotecnica, 4, 150-151. Milano (1932). **a - 859**

Illustrato brevemente lo scopo della Celerimensura, e collegata ad esso l'importanza dei micrometri tacheometrici, si passa a descrivere ciò che di migliore si è prodotto in fatto di micrometri, e si forniscono le caratteristiche di quelli attualmente impiegati.

**MacGillivray** - The Use of the Magnetic Needle on Surveys in Trinidad [*De buxidis ad relevamento in Trinidad*]. Emp. Surv. Rev., Oct., 238-244. London (1933). **a - 860**

**Maranca Francesco** - Il rilievo fotogrammetrico della zona Etnea [*De relevamento photogrammetrico in zona Aetnœa*]. 13 fig. e 2 f. t., Universo, 11, 837-847. Firenze (1933). **a - 861**

Impressioni dell'ascensione al cratere centrale. Sommaria descrizione dei lavori aerofotogrammetrici svolti nel 1932 nella zona Etnea. Cenni sulla particolare utilità della carta dell'Etna.

**Marin Alberto** - Algunos problemas de fácil solución [*De quibusdam problematis perfacile solvendis*]. Memorial Técnico (Ejércita de Chile), a. II, 7, 887-916. Santiago de Chile (1934). **a - 862**

Variados problemas de topografía cuya solución es acompañada por medio de cálculos y por sencillos gráficos. Medición indirecta de distancias por medio de un anteojo Zeiss de campaña, cuyo uso es frecuente en operaciones militares.

**Marti P.** - Méthodes acoustiques (5-ème rapport) [*Methodus acustica. (Relatio Va)*]. Rapp. Proc.-Verb. Cons. Expl. Mer, VIII, 163-166. Paris (1934). **a - 863**

Établissement d'un matériel nouveau pour profondeurs courantes. Quelques études relatives à l'exploitation plus précise des résultats dans le sondage aux grandes profondeurs. I. Sondage aux petites profondeurs. A. Sondeur ultra-sonore pour petites profondeurs. B. Sondeur par coups de marteau pour petites profondeurs. II. Sondage aux profondeurs courantes. A. Sondeur allemand dit « Echographe ». B. Sondeur par coups de marteau pour petits bâtiments, sondage « cadencé ». III. Sondage aux grandes profondeurs.

**Marussi A.** - Sulla legge di frequenza degli errori di osservazione in strumenti a cerchio graduato [*Lex de frequentia errorum, observationum causa, in instrumentis cum circulo in gradus diviso*]. Universo, Agosto. Roma (1934). **a - 864**

**Masserano G.** - Campagna topografica 1933 [*De operibus topographicis a. 1933*]. 1 carta. Boll. Geogr. (Gov. della Cirenaica), 16, 7-14. Bengasi (1933). **a - 865**

La campagna topografica 1933 in Cirenaica comprende due tipi di rilievi : *a)* Rilievi al 400.000 nella zona delle oasi meridionali ; *b)* Rilievi regolari al 100.000 della parte settentrionale della Colonia. È riferito per esteso il programma, l'organizzazione della campagna, i procedimenti.

**Maurer H.** - Echolotungen [*Scandalia sonora*]. Tab., Nachr. f. Seefahrer, 51. Berlin (1932). **a - 866**

Als Beilage zu nº 51, 1932 der « Nachrichten für Seefahrer » ist diese Brochure veröffentlicht worden. Sie enthält die Ergebnisse der Echlotungen, welche an Bord der Kreuzer « Emden » (1929-31) und « Karlsruhe » (1931-32) ausgeführt wurden, sowie an Bord des Vermessungsschiffes « Meteor », der Norddeutschen [illegible] und der Dampfer « Europa » und « Kolumbus » (Lloyd), sowie des Dampfers « Cap Arcona » der Hamburg-Süd-Amerikanischen Dampfschiffahrts-Gesellschaft (1932). In der Einleitung zu der vorliegenden Brochure schildert der Vf. die Bearbeitungsmethode der erhaltenen Peilungsergebnisse.

**Median Manuel** - The Progress of Geodetic Work in Mexico During Recent Years [*De progressibus in operibus geodesicis regionis Mexicanæ proximis annis*]. 3 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 54-58. Washington, D. C. (1933). **a - 867**

Present state of the geodetic triangulation in Mexico. Instruments and methods of observation. Geodetic astronomy. Precise levelling. Gravity-observations. Topography and photogrammetry.

**Modona A. N.** - La topografia antica [*De topographia vetere*]. Universo, An. XIV, 12. Firenze (1933). **a - 868**

**Musella F.** - Brevi cenni di Idrografia [*Compendium hydrographicum*]. 14 fig., Boll. di Pesca, Pisc. e Idrobiol., 3, 371-394. Roma (1933). **a - 869**

Dopo aver accennato allo scopo che si propone l'Idrografia, l'A. parla delle misure geodetiche di triangolazione e livellazione, del rilievo sottomarino, dei segnali e strumenti per le operazioni geodetiche e topografiche; della determinazione magnetica, degli scandagli; delle macchine a scandagliare, della rappresentazione grafica dei punti della terra e letture delle carte marine, e della nave idrografica. Completa questo cenno di idrografia con la terminologia geografica relativa alla configurazione orizzontale della terra emersa, al livello del mare e alle profondità marine.

**Nares J. D.** - Embarcations pour l'hydrographie (Suite) [*Naviculæ ad investigationes hydrographicas idoneæ*]. 5 fig., 1 pl., Rev. Hydrogr., XI, 1, 19-20. Monaco (Princ.) (1934). **a - 870**

Informations sur le Service Hydrographique Norvégien, contenant les détails de quelques unes de ses embarcations. Supplément aux informations sur le même sujet, concernant le Canada.

**Neviani Antonio** - Pantografo ottico [*De pantographo optico*]. Boll. Soc. Geol. It., LI, 1, 81-84. Roma (1932). **a - 871**

Semplice apparecchio atto alla riproduzione di qualsiasi piccolo disegno od oggetto che, con disposizione opportuna di due tavolette mobili (l'una che funziona da porta oggetti e l'altra da piano del disegno), si ottiene ingrandito o impicciolito, od anche delle medesime dimensioni. La parte ottica, che rappresenta il centro del dispositivo è data dalla comune camera lucida Abbe.

**Nielsen Niels** - Contribution to the Physiography of Iceland, with Particular Reference to the Highlands West of Vatnajökull [*Contributio in physiographyam Islandiæ. Agitur particulatim de altitudinibus in regione occidentali* Vatnajökull]. maps., diagrs., ills., Mém. Acad. R. Sc. & Lettres Danemark. Sect. Sc. Sér. 9, IV, 5, 183-187. Copenhague (1933).

(—) See also: M. A. Peacock, « The Physiography of Iceland », Geogr. Rev., XXIV, 2, 345-346. New York (1934). **a - 872**

Summary of the results of author's season's work (1927) which allowed to discover some striking errors in the position and extent of important topographic features of Iceland as represented of the best available topographic map (map of Th. Thoroddsen 1 : 600,000, Copenhagen, 1901). The author also offers a valuable and readable contribution to Iceland geomorphology and insists on the tectonic and volcanic control of relief in Iceland.

**Nosei Amedeo** - Sul « Cleps » coloniale Salmoiraghi [*De coloniali instrumento* « Cleps » *nomine, e systhemate* Salmoiraghi]. 1 ill., La Filotecnica, 5, 175. Milano (1932). **a - 873**

Breve illustrazione dello strumento.

**Ogilvie N. J.** - The Application of Radio to Astronomical Longitude-Determinations of the Geodetic Survey of Canada [*De radioapplicationibus pro determinationibus astronomicis longitudinis apud Servitium Geodesicum Canadense*]. 1 table, Nat. Res. Counc., Trans. Amer. Geoph., Union, 14th Ann. Meet., Apr. 27-29, 1933, 44-47. Washington, D. C. (1933). **a - 874**

Historical account of the development of the use of the radio in connection with longitude-determinations since 1914 by the Geodetic Survey of Canada. Description of the equipment used for the purpose. Various types of receivers and antennas. Reducing of the coast of geodetic survey resulting from the application of radio, which has revolutionised and simplified the technique of astronomical longitude-determination.

**Parker W. E.** - Use of Range-Finders for Hydrographic Surveying. L'emploi du télémètre pour les levés hydrographiques [*De adhibendo telemetro ad relevamenta hydrographica*]. Rev. Hydrogr., XI, 1, 120. Monaco (Princ.) (1934). **a - 875**

Extrait et traduit du « Bulletin of the Association of Field Engineers », U. S. Coast & Geodetic Survey, n° 5, p. 79, Juin 1932. Description de l'emploi du télémètre dans le repérage radioacoustique.

**Paroli Alfredo** - Gli errori di chiusura delle poligonali e la legge di frequenza di essi [*De erroribus in clusura poligonalium ac lege de eorum frequentia*] (Bibl). 6 fig. e 3 tav., Ric. d'Ingegneria, 1, 1-15. Roma (1934). **a - 876**

Espressi gli errori di chiusura di una poligonale in funzione dei suoi elementi geometrici e di coefficienti ricavabili sperimentalmente, l'A. verifica, mediante ripartizione statistica degli errori di un sistema di poligonali, l'accordo fra la frequenza matematica e quella effettiva di essi e fra la loro distribuzione teorica e quella concreta rispetto alle ellissi d'errore, applicando poi i risultati ottenuti allo studio critico dei limiti di tolleranza.

**Perrier Georges** - Travaux de la Section de Géodésie de l'Union Géodesique et Géophysique Internationale [*De operibus Sectionis Geodesicæ ad Unionem Geodesicam et Geophysicam Internationalem pertinentis*]. VIII, Au Secrétariat de la Section. Paris (1931). **a - 877**

Rapports généraux établis à l'occasion de la quatrième assemblée générale à Stockholm 1930.

**Persico Enrico** - Geofisica e Cosmogonia [*De Geophysica et Cosmogonia*] (Prolusione al Corso di Geodesia e Geofisica nella R. Università e R. Scuola di Ingegneria di Torino), 4 fig., Confer. di Fis. e Matem. tenute nell'Anno Accad. 1930-31. R. Luigi Avalle, 79-93. Torino (1932). **a - 878**

Difficoltà a cui viene a trovarsi il geofisico di fronte all'indagine della struttura interna della terra in relazione alle limitate possibilità di dati che sono a sua disposizione. Fonti e mezzi per trarre ciò che può aiutare nell'indagine in questione. Si impianta il problema cosmogonico nelle sue linee generali, mettendone in luce le attribuzioni e i mezzi di indagine.

**Piazzola-Beloch Margherita** - Sulla risoluzione di un problema di aero-fotogrammetria [*De solutione cuiusdam problematis aëriophotogrammetrici*]. Atti. R. Acc. Naz. Lincei (Rend. Cl. Sc. Fis., Mat., e Nat.), serie VI, XVIII, 1/2, 12-17. Roma (1933). **a - 879**

Nella aero-fotogrammetria ha particolare importanza la determinazione del punto di stazione e dell'altezza sul piano di stazione del centro di vista da cui è stata presa una data fotografia da un velicolo in volo (altezza di volo), non potendosi questi elementi misurare direttamente, come avviene per la

fotogrammetria terrestre, in cui l'apparecchio fotografico è solidamente appoggiato in un punto ben determinato del terreno. I metodi che a tale scopo vengono comunemente usati si fondano nel cosidetto procedimento a vertice di piramide. Nel presente studio, l'A. considera un caso particolare del problema, riducibile dal quarto al secondo grado, e lo risolve con metodi analitici rigorosi e graficamente, con riga e compasso.

**Potter A. J.** - The Earliest Geodetic Triangulation [*De priore triangulatione geodetica*]. Empire Surv. Rev., I, 3, 100-109. London (1932). **a - 880**

The present article deals with the report of the geodetic operations carried out by Willebrord Snellius Van Roien, the Dutch astronomer and geometrician, 1591-1625, a description of which is given in the remarkable book entitled: « Erathosthenes Batavus: De Terra ambitus vera quantitate, a Willebrordo Snellio Suscitatus ». Lugduni Batavorum (Leyden), 1617. This attempt of Snellius to define the shape of the earth, by using triangulation to measure the arc of meridian between Leyden and Soeterwoude, was actually the first to be made with any degree of precision.

**Ramella Giuseppe** - Nuovi orientamenti nella costruzione dei livelli a cannocchiale [*Cogitationes novæ in construendis libellis cum perspicillo*]. 6 fig., Il Geometra Italiano, 2, 19-24. Trieste (1932). **a - 881**

Proprietà dei livelli a cannocchiale, tipi principali di questi, ultime creazioni in fatto di livelli a cannocchiale.

**Ronchi Vasco** - Sul collaudo dei binocoli [*De comprobatione binoculorum*]. 3 fig. n. t. e 1 tav. f. t., Boll. Ass. Ott. It., 2/3, 87-99. Firenze (1933). **a - 882**

Nozioni generali per inquadrare il problema in modo preciso; saggio di quello che è l'esame approfondito di uno strumento ottico e particolarmente di un binocolo.

**Salmoiraghi A.** - Errori dipendenti dall'eccentricità della rotazione dell'alidada rispetto alla graduazione [*Errores dependentes ab excentricitate rotationis alidadae pro graduatione*]. Filotecnica, a. IV, 2, 309-311. Milano (1934). **a - 883**

In questo articolo, dopo aver ricordato il ben noto teorema secondo il quale gli errori nelle misure angolari, provenienti dall'eccentricità dei centri graduati, possono eliminarsi con il semplice artificio di due letture diametrali con due vernieri o microscopi a 180°, si stabilisce in quali casi sia sufficiente la lettura degli angoli fatta con un solo verniero o con un solo microscopio.

**Sigematu Ryôiti** - A Brief Note on the Depths of the Sea in the Vicinity of the Mariana Islands [*Nota brevior de maris altitudine apud insulas* Mariana]. 1 pl., Rec. Oceanogr. Works Jap., 5, 99-104. Tokio (1933). **a - 884**

In this paper the writer illustrates the bathymetric chart of the sea near Mariana Islands. The most striking features of the Mariana trench are pointed out in the chart; the cross sections of the trench are also considered (Author).

**Soholt A.** - Ekkolodd [*Scandalium per echum*]. Norsk Tidsskr. för Sjövesen, Dec., 460-466. Horten (1933). **a - 885**

**Solaini L.** - Su di un caso particolare del problema del vertice di piramide [*De problemate verticis cuiusdam pyramidis. Agitur de casu quodam peculiari*]. Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis., Mat. e Nat., XIX, 4, 242-248. Roma (1934). **a - 886**

Viene studiata la risoluzione sia rigorosa sia approssimata del problema del semplice vertice di piramide nel caso particolare in cui sono noti due punti del terreno fotografico e una direzione. La risoluzione rigorosa viene dedotta da quella relativa al caso generale di cui il presente problema può essere considerato come caso limite. Dalle formule ottenute se ne ricavano altre che permettono di determinare i valori delle incognite per mezzo di successive approssimazioni. Viene infine indicato un procedimento grafico numerico di risoluzione.

**Soler E.** - Alcuni ricorsi storici sopra un certo problema geodetico [*De recursibus historicis cuiusdam problematis geodesici*]. Mem. Soc. Astr. It., nuova serie, VIII, 1, 7-12. Pavia (1934). **a - 887**

L'autore, riprendendo l'argomento delle relazioni mutue tra la espressione della gravità sopra una superficie supposta di equilibrio e la equazione della superficie stessa, argomento trattato in altra nota inserita in queste Memorie, espone i precedenti storici del detto problema, che risale al Laplace e mette in rilievo delle deduzioni interessanti che si traggono dalla trattazione fattane dal Pizzetti.

**Soler E. & Cassinis G.** - L'attività del Comitato Nazionale per la Geodesia e la Geofisica, del Consiglio Nazionale delle Ricerche, durante l'anno 1933 [*Comitatus Nationalis pro Geodesia et Geophysica ad Consilium Nationale Investigationum Scientificarum pertinens eiusque activitas a. 1933*]. Ric. Scient., a. V., I, 5. 253-257. Roma (1934). **a - 888**

Relazione sulla Riunione Plenaria del Consiglio Nazionale delle Ricerche dell'8 marzo 1934-XII.

**Stamm H.** - Neues zur Technik und Form der Uhr. [*Progressus in chronometris*]. Schriftenreihe Ges. Zeitmesskunde u. Uhren-technik, V, Verl. dtsch. Uhrmacher-Zeitung. Berlin (1933). **a - 889**

Letzte Neuigkeiten in Bezug auf die Technik der Zeitsignale.

**Stetson H. T.** - Further Results in the Study of Apparent Variations of the Vertical with the Hour-Angle of the Moon [*Resultatus ulteriores ex studio variationum apparentium verticalis cum angulo horario lunari*]. 5 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., April, 27-29, 1933. 47-52. Washington, D. C. (1933). **a - 890**

Further results of studies in the variation of latitude which have been continued at the Perkins Observatory subsequent to the last report (Nat. Res. Counc., Trans. Amer. Geoph. Union, 13th Ann. Meet., 85-88, 1932). Determination of reduction-curves for Tschardjui and Mizusawa for the years 1910 and 1911. Mean curves for the station at Gaithersburg Cincinnati, Ukiah, and Carloforte, showing the latitude variation with moon's hour-angle and declination. Variation in vertical component of tidal force, equilibrium-tides, latitude 40°, with moon's hour-angle for moon south, on equator and north have also been tabulated. Some considerations concerned with the tidal phenomena are given.

**Stocks Theodor** - Der Südantillen-Bogen im Lichte neuerer Erkundungen [*Arcus Antillarum meridionalium ac recentiores inquisitiones scientificæ*]. Ztschr. Ges. f. Erdkunde (Sonderabdr. 2), 5/6. Berlin (1932). **a - 891**

Neueste Ergebnisse der Erforschung des Südantillen-Bogens im Laufe der letzten Expeditionen nach dem Süd-Atlantischen Ozean. Bathymetrische Analyse des an der Weddelsee liegenden Beckens. Ein ausgedehntes bibliographisches Verzeichnis schliesst die Arbeit.

**Strand E. & Ozolins V.** - Hydrographische Untersuchungen der Hydrobiologischen Station im Rigaer Meerbusen und im Baltischen Meere [*Inquisitiones hydrographicae in Statione in Sinu Cylipeno et in Baltico mari*]. Fol. Zool. et Hydrobiol., V, 315-323, Riga (1934). **a - 892**

**Survey of India** - Geodetic Report, vol. VIII, from 1st October 1931 to 30th September 1932 [*Relatio geodetica. Vol. VIII a die 1-X-1931 ad diem 30-IX-1932*]. 23 pl., 2 charts, xvii - 118 pp., Dehra Dun. (1932).

(—) S. also: Int. Hydrogr., Bull., 9, 159-160. Monaco (1933). **a - 893**

The present report contains an account of the triangulation work performed in India during the period under consideration, and gives information on two geodetic index charts produced and included in the Report: the Index Chart of Geodetic Surveys in India and neighbouring countries on the scale of 1/6 millionth, which shows all the operations of geodetic interest performed in India, Burma, and Siam, French Indo-China, Malaya and Ceylon, and Geodetic Survey between India and Australia on the scale of 1/10 millionth (approx.). Observations have also been made of tides, latitude variation, longitude, and the height of snow peaks.

**Tardi P.** - Traité de Géodésie. Fascicule I, Généralité sur la Géodésie. Fascicule II, Astronomie Géodésique de Position [*Geodesiæ tractatus. Fasciculus I.$^{or}$ Generalia. Fasc. II. Astronomia, Geodesia*]. xxx + 422, xi + 425-730 pp. Gauthier-Villars. Paris (?). **a - 894**

**Terada Torahiko** - On the Result of Revision of Precise Levelling along the Pacific Coast [*Resultatus ex certiore libellatione litoris Oceani Pacifici*]. 2 figs., diagr., Proc. Imp. Acad., VIII, Nov., 410-412. Tokyo (1932). **a - 895**

**Thomson W. Harding** - Devon. A Survey of its Coast. Moors and Rivers, with Some Suggestions for Their Preservation [Devon *regio. Relevamentum eius litorum. Paludes ac flumina. Adiunguntur consilia pro eorum conservatione*]. fig., maps, xx + 144 pp. Univ. of London Press. London (?). **a - 896**

**Tortorici P.** - Sulla validità di alcune formule dedotte da quella di Stokes relativa alla forma della Terra [*De validitate aliquarum formularum deductarum ex formula Stokesiana circa Terræ formam*] Boll. Un. Mat. It., 2, 69-72. Bologna (1933). **a - 897**

Si esamina la legittimità del procedimento di derivazione sotto il segno integrale, applicato ad una ben nota formula di Stokes e si fa qualche rilievo sulla validità di alcune formule dedotte con tale procedimento e sulle conclusioni che se ne vorrebbero trarre.

**Trombetti Carlo** - Intorno ad un nuovo tipo di segnale trigonometrico in ferro [*De novo quodam apparatu ferreo pro signalationibus trigonometricis*] 3 tav. f. t. Universo, 8, 636-640. Firenze (1933).

(—) V. Rés. en franç. dans: Rev. Hydrogr., XI, 1, 123-126. Monaco (1934). **a - 898**

Fatto breve cenno dei segnali finora in uso e degli inconvenienti che essi presentano, l'A. dichiara la necessità di un nuovo tipo di segnale e ne propone, descrivendolo, uno in ferro, scomponibile e montabile facilmente sul posto, che risponde a tutti i requisiti richiesti.

**Tschirikhin J.** - Hydrographical Work in the Region of New Siberian Islands in 1934 [*De operibus hydrographicis in regione Insularum Novæ Siberiæ a. 1934*] (In Russ., Engl. Summ.). Bull.Arct. Inst., 4, 181-182, 213. Leningrad (1934). **a - 899**

Program of the work of the expedition sent by the Hydrographic Department of the Chief Administration of the Northern Sea Route, whose task is to make a survey of the shores of Dm. Laptev Strait on hand of 6 astronomic points and a plane-table on the scale 1 : 50.000. The expedition has at her disposal the motor-sailing schooner « Temp » and an airplane.

**Tufino Luis G.** - Mesure de la base géodésique de Santa Elena par le Service Hydrographique de la Marine de l'Equateur [*De mensuris basis geodeticæ Sct. Helenæ per Servitium Hydrographicum Classis Aequatorianæ*]. 1 fig., Rev. Hydrogr., XI, 1, 28-30. Monaco (Princ.) (1934). **a - 900**

Résumé d'un Rapport présenté au Ministre de la Guerre et de la Marine par l'Ingénieur Géographe et Conseiller Technique du Service Hydrographique de l'Equateur. Le rapport est divisé en deux parties, dont la première traite de la mesure de la base de Santa Elena et la seconde du réseau de triangulation dans la région de Santa Elena, de la nécessité d'accroître le personnel du Service Hydrographique, de l'achat des instruments, etc.

**Udema** - Voordeel van het Echolood-Dankjes met minder diepte of diep water geronden [*Scandalium per echum eiusque commoda. Bassi fundi in aquis altis inventi*]. De Zee, Oct., 585-586. Den Helder (1933). **a - 901**

**Vallaux C.** - Le relief sous-marin d'après les récents sondages [*De relevamento submarino ex recentioribus scandaliis*]. Scientia, 12, 347-355. Milano (1933). **a - 902**

**Voitzekhovskij G.** - Travaux astronomiques de l'Institut Arctique dans l'embouchure du fleuve Léna, dans les montagnes de Kharaoulakh et dans la Baie Borkhaj en 1931 et 1932/33 [*De operibus astronomicis peractis ab Instituto Arctico ad fauces fluminis* Lena, *in montibus* Kharaoulakh, *in Baja* Borkhaj *a. 1931, 1932/33*]. (En russe). 2 tabl., Bull. Arct. Inst., 4, 175-178. Leningrad (1934). **a - 903**

Compte rendu des levés astronomiques faits avec un théodolite 10" de la maison Chasselon avec verniers, un chronomètre de F. Erikson nº 2064 et un radio-récepteur « LB-2 » avec un amplificateur à deux lampes. On a déterminé les points astronomiques dans dix localités de la région côtière et le long du delta du fleuve.

**Weigel K.** - Jonction des réseaux de triangulation des grands continents [*De coniunctione retium triangulationis magnarum terrarum continentium*]. Bull. Géod., 38, 198-209. Toulouse-Paris (1933). **a - 904**

La solution de ce problème que l'auteur présente a pour caractères essentiels : *a*) Les différents systèmes de triangulation, considérés comme rigides, sont assemblés de la manière la plus convenable en un seul système ; *b*) On détermine l'ellipsoïde de référence le plus convenable pour le système ainsi formé.

**Wiese W.** - Lotungen ausgeführt von der Expedition mit dem Eisbrecher « Sedow » im Jahre 1930 [*De scandaliis peractis a navi glacieiruptrici* « Sedov » *a. 1930*] (In Russ.). 1 Karte, 3 Tab., Sci. Res. Arct. Exped. on the « Sedov » in 1930. Hydrol. & Meteorol., Trans. Arct. Inst., I, 125-137. Leningrad (1933). **a - 905**

Ergebnisse der Tiefenmessungen im nördlichen Teile des Karischen Meeres, auf Franz-Joseph Land und im Barents Meere. Ergebnisse magnetischer Peilungen.

**Wiese W. J.** - Die Lotungen [*De scandaliis*]. (In Russ.). 1 Tab., Trans. Arct. Inst., VI, 29-33. Leningrad (1933). **a - 906**

Tabelle der Lotungen, welche während der Fahrt des Eisbrechers « Malygin » nach dem Franz-Joseph Land in 1931 ausgeführt worden sind.

**Wiese W. J.** - Lotungen ausgeführt von der Expedition mit dem Eisbrecher « Sibirjakov » im Jahre 1932 [*Scandalia peracta navi glacieiruptrici* « Sibirjakov » *a. 1932*] (In Russ.). 2 Tab., Trans. Arct. Inst., X, 125-130. Leningrad (1933). **a - 907**

Tabelle der von der « Sibirjakov » Expedition im Jahre 1932 ausgeführten Lotungen mit verschiedenen Instrumenten. Tabelle mit Daten über die Bojen, die von der « Sibirjakov » Expedition ausgesetzt wurden.

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**British Hydrographer** - Shoaler Water discovered on a Bank off the South-West Coast of Portugal [*Bassus fundus inventus in bancho longe a litoribus sud-orientalibus Lusitanis*] (In Engl. & French). 1 table on pl., Int. Hydrogr. Bull., 2, 38-39. Monaco (Princ.) (1933). **a - 908**

Report on some interesting soundings which were obtained recently by H. M. Surveying Ship « Ormonde » off the South-Western Coast of Portugal and in the vicinity of the Gettysburg or Gorringe Bank.

**Bureau Hydrographique International** - Rapports sur les Travaux exécutés et projétés par les Services Hydrographiques [*Relatio de operibus a Servitio Hydrographico propositis ac peractis*]. Bull. Hydrogr. Int., 1/2/3/5, 2-6, 24-29, 43-56, 91-92. Monaco (Princ.) (1934). **a - 909**

1) Norvège et Canada; 2) Suède, Grande-Bretagne et Pologne; 3) Grande-Bretagne, Espagne, Japon et Canada; 5) Siam.

**Bureau Hydrographique International** - Méthodes de sondage [*Methodus ad scandalia ducenda*]. 1 pl., Rev. Hydrogr., XI, 1, 37-70. Monaco (Princ.) (1934). **a - 910**

Résumé des réponses reçues par le Bureau à la Lettre Circulaire nº 5-H de 1933 envoyée aux Membres du Bureau dans le but de demander les renseignements les plus récents sur les divers procédés de sondage utilisés par les divers pays pour sonder, soit à bord des navires, soit dans les embarcations, au cours des opérations de levé hydrographique, par eau relativement peu profonde, aux abords des côtes et dans les ports. Les résumés sont groupés sous les neuf paragraphes de la Lettre Circulaire susmentionnée.

**Bureau Hydrographique International** - Méthodes de dragage hydrographique utilisées par les divers pays [*Methodus purgationibus hydrographicis in vadis ducendis, qua diversæ utuntur nationes*]. 6 fig., 3 pl., Rev. Hydrogr., XI, 1, 71-84. Monaco (Princ.) (1934). **a - 911**

Résumé des méthodes de dragage hydrographique utilisées par les suivants pays: Etats-Unis d'Amérique, Japon, Grande-Bretagne, France, Argentine, Chili, Danemark, Norvège, Allemagne, etc.

**Canadian Hydrographic Office** - [*Relevamenta hydrographica*]. Ottawa (1933-1934).

(—) Gulf of St. Lawrence (North Shore) Coast survey. 1 : 48.000.

(—) Lower St. Lawrence Tidal & Current Survey and Magdalen Isl. Coast Survey. 1:146.000.

(—) Hudson Strait south coast of Baffin Isl. Coast survey. 1 : 73.000.

(—) Saint John River. 1 : 12.000.

(—) Lake Winnipeg (Black island section). 1 : 12.000.

(—) Mackenzie River Delta (Estuary of East Channel). 1 : 24.000.

(—) West Coast Vancouver I and Juan de Fuca Strait. Coast Survey. 1 : 72.000.

(—) British Columbia Coast (West Coast Vancouver I). Coast survey. 1 : 72.000. **a - 912**

**Coast & Geodetic Survey** - Scope of Activities [*Activitas et proposita*]. Ann. Rep. Secr. of Comm. 1933, 109-131, U. S. Govmt. Print. Off. Washington (1933). **a - 913**

Field operations. Geodetic work. Tide and current work. Magnetic and seismological work.

**Commissione Geodetica Italiana** - Verbale della seduta della R. Commissione Geodetica Italiana tenuta a Roma il 10 ottobre 1932-X [*Acta scripta consessus Romæ habiti die 10/10/32 a Regia Commissione Geodesica Italica*]. Pubblicazioni della R. Commissione Geodetica Italiana, nuova serie, 7, 39 pp. Padova (1933). **a - 914**

Processo verbale della seduta della R. Comm. Geodetica italiana tenuta a Roma il giorno 10 ottobre 1932-X. Relazione sui lavori compiuti da G. Cassinis. Relazione sui lavori per la costruzione delle tabelle per le riduzioni delle misure di gravità e sui lavori per la riduzione delle misure italiane. Lavori compiuti dall'Istituto di Geodesia della R. Università di Palermo nel biennio 1929-30. Notizie sui lavori dell'Istituto di Geodesia della R. Università di Genova. Lavori gravimetrici compiuti sul Monte Rosa. Relazione sull'attività dell'Istituto Idrografico nel campo astronomico-geodetico durante l'anno scorso. Lavori gravimetrici e geofisici dell'Istituto di Geodesia della R. Università di Padova nella regione delle Grotte di Postumia. La Stazione dei pendoli orizzontali nelle R. Grotte di Postumia. Relazione sull'attività scientifica della R. Stazione Astronomica di Carloforte durante l'anno 1931.

**Consiglio Nazionale delle Ricerche - Comitato Nazionale Italiano per la Geodesia e la Geofisica** - Rapporti sull'attività del Comitato nel triennio 1930-32 presentati alla V Assemblea generale dell'Unione geodetica e geofisica internazionale (Lisbona 1933) [*Relatio de triennali activitate Comitati (1930-32) relata ad V.um Consessum plenarium Unionis Geodesicæ et Geophysicæ internationalis Olisippone a. 1933*]. 1 fig., 24 tav. e 5 carte f. t., 113 pp., Tip. del Seminario. Padova (1933). **a - 915**

Il volume contiene soltanto i rapporti sull'attività esplicata dall'Italia durante il triennio 1930-32 nel campo della Geodesia e della Geofisica. I detti rapporti rappresentano un documento dell'intensificazione e del progresso delle ricerche geodetiche e geofisiche in Italia e sono brevemente illustrati dal Presidente del Cons. Naz. It. per la Geodesia e la Geofisica, prof. Emmanuele Soler, nella premessa al volume stesso. Gli argomenti trattati sono: Rapporto sull'attività esplicata nel triennio 1930-1932 nel campo della geodesia. La stazione dei pendoli orizzontali nelle R. Grotte di Postumia. Elenco delle principali pubblicazioni edite in Italia dal 1930 al 31 dicembre 1932, aventi per argomento questioni inerenti alla geodesia. Relazione sull'attività dei meteorologisti italiani nel triennio 1930-32. Relazione sul servizio meteo-aerologico di aeronautica dal 1930 al 1933. Rapporto sull'attività in Italia nel triennio 1930-33 nel campo del magnetismo e dell'elettricità terrestri. L'Osservatorio magnetico dell'Istituto idrografico della R. Marina in Genova. Rapporti sull'attività esplicata dall'Italia nel triennio 1930-33 nel campo della sismografia. La stazione sismica di Trieste nella sua nuova sistemazione. La Stazione geofisica di Mogadiscio. Le ricerche vulcanologiche in Italia durante il periodo 1930-33. Istituto geofisico del R. Comitato talassografico di Trieste. Rapporto sull'attività svolta nel campo dell'oceanografia fisica nel triennio 1930-33. Rapporto sul Servizio idrografico italiano con particolare riguardo all'attività svolta nel triennio 1930-33. L'attività del Comitato glaciologico italiano nel triennio 1930-33.

« **Filotecnica (La)** » - Il nuovo livello a cannocchiale, a bolla fissa automaticamente girevole, costruito da « La Filotecnica » [*Livellus novus perspicillo præditus ac bulla fixa quæ automatice versari potest ab Instituto « La Filotecnica » ædificatus*]. 4 fig., Filotecnica, 6, 273-276. Milano (1933). **a - 916**

Descrizione e caratteristiche dello strumento.

**Hydrographer (de la Marine Britannique)** - Détails des balises flottantes type « Ormonde » et « Fitzroy » [*De maritimis signis fluctuantibus ex typis* « Ormonde » *et* « Fitzroy »]. 2 pl., Rev. Hydr., XI, 1, 121-122. Monaco (Princ.) (1934). **a - 917**

Traduction des légendes de deux dessins des détails des deux modèles principaux des balises flottantes employées par le Service Hydrographique Britannique.

**Hydrographic Department** - List of Oceanic Depths Received at the Admiralty During the Year 1933 (H. D. 319) [*Index altitudinum oceanicarum quæ ad Classis Britannicæ Præfecturam pervenerunt a. 1933*]. 14 pp., London (1934). **a - 918**

**Japanese Hydrographic Department** - On the Results of Soundings in the Vicinity of the « Yamato Bank » [*De resultatibus scandaliorum in propinquitatibus regionis* Yamato Bank]. 1 pl., Suiro Yôhô Hydrogr. Bull., 12, 427-428. Tokyo (1933). **a - 919**

Results of sounding carried out in the vicinity of a shallow of depth of 465 m. reported in 1930 in latitude 39° 46' N, longitude 133° 39' E in the central part of the Sea of Japan by the surveying ship « Yamato », I. J. N. Two banks not deeper than 600 m. were found to extend in NE and SW directions. To the northwest the bottom of sea falls very steep to a deepness over 2000 m. To the southeast of the bank, another bank, known as « Yamato Bank », the minimum depth of which is 285 m., extends in a direction nearly parallel to that of the former, from which it is separated by a furrow deeper than 2000 m. (S. abstract 139, by S. Ogura, Jap. Journ. Astr. & Geoph., XI, 3, 42-43 Tokyo 1934).

**Marina do Brasil - Hidrografia** - Anais Hidrograficos [*Annales hydrographici*]. v + 191 pp., I, Imprensa Nacional. Rio de Janeiro (1933). **a - 920**

Activité hydrographique de la Marine Brésilienne. Travail cartographique, géodésique et hydrographique à Ilha Grande. Description du Radiophare de San Tomé.

**République de l'Equateur** - Règlement concernant l'organisation du Service Hydrographique de la République de l'Equateur [*Regulamenta circa organisationem Servitii Hydrographici Reipublicæ Aequatorianæ*]. Rev. Hydrogr. XI, 1, 21-27. Monaco (Princ.) (1934). **a - 921**

Extrait du Bulletin Officiel n° 89 de la République de l'Equateur, en date du 18 Mars 1933. V. aussi « Rev. Hydr. », X, 2, p. 26, 1933. Règlement du Service Hydrographique : Ch. I : Organisation Ch. II : Obligations et attributions du personnel. Ch. III : Dispositions Générales.

**Service Hydrographique Espagnol** - Le navire hydrographe espagnol « Tofiño » [*De navi hispanica* « Tofiño » *pro muneribus hydrographicis*]. 3 pl., Rev. Hydrogr., XI, 1, 13-15. Monaco (Princ.). (1934). **a - 922**

Plans et description du nouveau navire hydrographe espagnol lancé au Ferrol le 23 Août 1933, complétés par une courte biographie du grand hydrographe espagnol, dont il porte le nom.

**Service Hydrographique de la Marine** - Découverte d'un banc : Océan Austral. Discovery of a Bank : Southern Ocean [*De invento basso fundo in Oceano Australi*]. (En franç. & angl.). Bull. Hydrogr. Int., 8, 147-148. Monaco (Princ.) (1933). **a - 923**

Information sur la découverte, au cours d'une croisière aux Iles Crozet et Kerguelen en 1930, par l' « Antares » par suite de quelques sondages à ultrason et au sondeur « Warluzel » d'un banc avec une tête de 53 mètres, dénommé « Banc de l'Antares » par 45° 24' S., 49° 51' E. Greenwich.

**Servicio Hidrografico** - [*Relevamenta hydrographica*]. Madrid (1933).

(—) From Ceuta to Cape Mazari. 1 : 52.000.
(—) From Cape Spartel to Arcila. 1 : 52.500.
(—) Port of Tangier. 1 : 5000. **a - 924**

**Union Astronomique et Association Géodesique Internationales** - Opérations Internationales des Longitudes [*De operibus internationalibus pro longitudinibus*]. Bull. Géod., 38, 210-226. Toulouse-Paris (1933). **a - 925**

Programmes. Observatoires participant à l'opération. Etoiles à observer.

**Union Géodésique et Géophysique Internationale** - Travaux de l'Association Internationale de Géodésie [*De operibus peractis a Societate Internationali pro Geodesia*]. plus. fig. tabl., XI, 1, Secrétariat de l'Association. Paris (1933). **a - 926**

Rapports nationaux sur les travaux exécutés dans les suivants pays, établis à l'occasion de la cinquième assemblée générale, Lisbonne, 14-25 Sept. 1933. Canada. Danemark. Grande-Bretagne. Grèce. Italie. Mexique. Norvège. Pays-Bas. Pologne. Siam. Suisse.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Triangulation [*De triangulatione*]. 5 figs., U. S. Govmt. Print. Off, Coast & Geod. Surv., Ser. 529, 1-20. Washington, D. C. (1931). **a - 927**

Surveying by triangulation method. Reconnaissance. Measuring the angles. Observation towers. Accuracy of triangulation. Computations. Marking stations. Extent of triangulation. Utility of triangulation control surveys. Future needs.

**U. S. Geographic Board** - 6th Report of... [*Relatio VIa*]. 800 pp., U. S. Govmt. Print. Off., Washington, D. C. (1933). **a - 928**

6th Report of the U. S. Geographic Board (originally called the United States Board on Geographic Names) which considers the period from 1890 to 1932. It starts with two chapters on the problems involved in transcribing place names and the rules adopted by the United States Geographic Board.

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**J. D. N.** - Correction de pente par les sondages par le son. Slope Corrections for Echo Soundings [*Correctio scandaliorum per sonos ductorum, fundi inclinationis auxilio*] (En franç. & angl.). 2 fig., Bull. Hydrogr. Int. 7, 123-125. Monaco (1933). **a - 929**

Explication élémentaire de la relation Tang $\beta = \sin \alpha$, indiquée par M. de Vannsay à p. 48 de la « Revue Hydrographique », vol. X, n° 1 de Mai, 1933 que l'on obtient en désignant par $\alpha$ la vraie pente du fond et par $\beta$ la pente que l'on trouve en inscrivant sur la minute deux ou plusieurs distances d'écho non corrigées.

**J. D. N.** - Visite du navire hydrographe britannique « Ormonde » à Monaco [*De visitatione in arcem Monoeci navis hydrographicæ Britannicæ*

« Ormonde »]. 1 pl., Rev. Hydrogr., XI, 1, 35-36. Monaco (Princ.) (1934). **a - 930**

Compte rendu sur l'escale faite par le navire hydrographe britannique « Ormonde » à Monaco, dont le but principal était de montrer aux Membres du Bureau Hydrographique International le fonctionnement de nouveaux modèles d'appareils d'hydrographie dont est muni ce navire.

**An.** - Multiple Lens Aerial Cameras in Mapping [*De apparatibus aërophotographicis multiplicibus obiectivis prœditis pro chartographia*]. ill., viii + 162 pp., Furchill Aerial Camera Corporation. New York (1933). **a - 931**

**An.** - The Deepest Known Places in the Oceans. Les plus grandes profondeurs océaniques connues [*De maximis oceani profunditatibus adhuc cognitis*] (En angl. & franç.). Bull. Hydrogr. Int., 1, 16-17. Monaco (1932). **a - 932**

Extract from the U. S. H. O. Hydrographic Bulletin, September 7, 1932, Washington.

**An.** - Denmark - Oceanic Soundings. Bathymetric Chart of the Ocean [*Scandalia oceanica. Charta bathymetrica oceanorum. Dania*] (En angl. & franç.). 2 tabl., Bull. Hydrogr. Int., 2, 33-34. Monaco (1933). **a - 933**

Note et deux tableaux sur les sondages effectués dans les mers de l'Asie Orientale par la Great Northern Telegraph Co.

**An.** - Norway - Oceanic Soundings. Bathymetric Chart of the Oceans [*Scandalia oceanica. Charta bathymetrica oceanorum. Norvegia*] (En angl. & franç.). Bull. Hydrogr. Int. 2, 35. Monaco (1933). **a - 934**

Renseignements envoyés au Bureau Hydrographique International par le Norges Svalbard-og Ishavs-Undersökelser sur les expéditions hydrographiques effectuées et à effectuer par cette institution en vue de l'élaboration d'une carte bathymétrique des océans.

**An.** - « Discovery » Reports. [*Relationes navis* « Discovery »] (In Engl. & French). Bull. Hydrogr. Int., 2, 37-38. Monaco (1933). **a - 935**

Summary of the extract of the Discovery Report entitled : « Report on Soundings taken during the Discovery Investigation 1926-1932 » and giving all deep-sea soundings taken during the « Discovery » 's cruise from 1926-1932. The areas in which these soundings were taken are the Scotia Sea, Bransfield Strait, the Southern Shetland Islands and the Bellinghausen Sea. Three coloured bathymetric charts are appended to the report.

**An.** - Soundings in the Vicinity of Cape Guardafui [*Scandalia peracta apud promunturium* Guardafui] (En angl. & franç.). 1 croquis. Bull. Hydrogr. Int., 12, 207. Monaco (1933). **a - 936**

Indications sur les sondages effectués par le vapeur néerlandais « Dempo » avec l'appareil de sondage par le son Langevin, le 18 Juin 1933 dans le voisinage du Cap Guardafui.

**An.** - Reports on the Work Carried out and Projected by the Hydrographic Offices [*Relationes de operibus propositis peractisque a Servitio Hydrographico*] (En angl. & franç.). Bull. Hydrogr. Int., 1, 2-6. Monaco (1934). **a - 937**

Norvège : Travaux exécutés : A) Levés faits au cours de la période du 12 Mai au 24 Septembre 1933 ; B) Cartes ou diagrammes publiés en 1933, C) Ouvrages ou publications éditées en 1933. Travaux projetés : *a*) levés projetés au cours de la période Mai-Septembre 1934 ; *b*) cartes ou diagrammes en préparation ; *c*) ouvrages ou publications en préparation.

Canada : A) Levés faits au cours de la période 1933 : 1) Levés côtiers.

**An.** - A Spitsbergen Survey [*De relevamentis in* Spitzberg] (En angl. & franç.). Bull. Hydrogr. Int., 1, 16. Monaco (1934). **a - 938**

Résumé des résultats des travaux de l'expédition de l'Oxford University qui a passé 11 semaines au Spitzberg au cours de l'été 1933.

**An.** - Reports on the Work Carried Out and Projected by the Hydrographic Offices [*Relationes de operibus propositis peractisque a Servitio Hydrographico*] (En angl. & franç.). Bull. Hydrogr. Int., 2, 24-27. Monaco (1934). **a - 939**

Sweden. Work carried out : A) Surveys made during 1933 : 1) Coastal surveys ; 2) Ocean surveys ; 3) Magnetic surveys ; 4) Tides, tidal stream and current observations ; 5) Miscellaneous. B) Charts or Diagrams published in 1933 : 1) New charts or diagrams ; 2) New editions of existing charts or diagrams. C) Books or publications issued in 1933 : 1) New, 2) Revised editions ; 3) Supplements. Work projected : *a*) Surveys projected during 1934 ; *b*) Charts or diagrams in hand : 1934 ; *c*) Books or publications in hand.

Great Britain : Brief summary of the work being carried out by H. B. M. Surveying Ships during the 1934 surveying season.

**An.** - Reports on the Work Carried Out and Projected by the Hydrographic Offices [*Relationes de operibus propositis peractisque a Servitio Hydrographico*] (En angl. & franç.). Bull. Hydrogr. Int., 3, 43-56. Monaco (Princ.) (1934). **a - 940**

Great Britain : Extract from the Report by the Hydrographer of the British Navy for the Year 1933. A) Surveys made during the period 1933 : 1) Coastal surveys. Summary of the Charts, Notices to Mariners, and Books published during 1933.

Spain. Year 1933 : Work carried out : A) Surveys made during period April to November 1933 : 1) Coastal surveys ; 2) Ocean surveys ; 3) Magnetic surveys ; 4) Tides, Tidal streams and Current Observations ; 5) Miscellaneous. B) Charts and Diagrams published in 1933 : 1) New Charts and Diagrams ; 2) New editions of existing Charts and Diagrams. C) Books and Publications issued in 1933 : 1) New, 2) Revised edition ; 3) Supplements. Work Projected : *a*) Surveys projected during period 1st April to 31st October 1934 ; *b*) Charts or Diagrams in hand ; *c*) Books or publication in hand.

Japan : Idem as for Spain.

Canada : Work carried out during 1933 : List of surveys made in various localities.

**An.** - Annual Report of the Hydrographic Office of the United States of America for the Fiscal Year 1933 [*Relatio annua Officii hydrographici Provinciarum Foederatarum Americœ anno fiscali 1933*] (En angl. & franç.). Bull. Hydrogr. Int., 3, 57-59. Monaco (Princ.) (1934). **a - 941**

**An.** - Annual Report of the Deutsche Seewarte [*Relatio annua per* Deutsche Seewarte] (En angl. & franç.). Bull. Hydrogr. Int., 3, 58-59. Monaco (Princ.) (1934). **a - 942**

Résumé du Rapport de la Deutsche Seewarte, n° 56, pour l'année 1933.

**An.** - General Bathymetric Chart of the Oceans [*Charta generalis bathymetrica Oceanorum*] (En angl. & franç.). Bull. Hydrogr. Int., 3, 60-61. Monaco (Princ.) (1934). **a - 943**

Resolutions concerning the Carte Bathymétrique Générale des Océans, adopted by the American Geophysical Union and the American National Research Council. Grant made by the National Academy of Science, Washington. Completion of the compilation of the first sheet of the new edition of the Chart.

**An.** - Demonstration of Echo Sounding Apparatus on Board a French Vessel Employed in Hydrographic Surveying [*De apparatibus ad scan-*

*dalia soni auxilio ducenda, in navi Gallica ad relevamenta hydrographica idonea*] (En angl. & franç.). Bull. Hydrogr. Int., 3, 63-65. Monaco (1934). **a - 944**

Bref compte rendu de la visite faite par les membres du Bureau Hydrographique International à bord du remorqueur « Méjean » de la Direction du Port de Toulon, au cours de laquelle deux appareils pour le sondage par le son ont été présentés, à voire : 1) un appareil de sondage par le son par chocs de marteau, système Marty, avec enregistrement graphique, modèle pour l'hydrographie de petits fonds ; 2) un appareil de sondage par coups de fusil pour profondeurs moyennes, avec enregistrement système Marty. Description des principes et du fonctionnement des deux appareils.

**An.** - Marine Survey of India [*Agitur de sectione pro relevamentis hydrographicis in India*] (In Engl. & French.). Bull. Hydrogr. Int., 4, 78-80. Monaco (1934). **a - 945**

Extract from the « Administration Report » of the Royal Indian Marine for the years 1932-1933. Recess season 1932. Work completed during the season. Data prepared. Summary of work completed : Survey of the Approaches to the R. I. M. Dockyard, of Government Moorings, Bombay ; Continuation of the survey of the West coast of India ; Survey of the Investigator Channel Mergui Archipelago. Indian Light List.

**An.** - Tests of Theodolite Circles [*Inspectio circulorum theodolitis*]. Milit. Engin., nº Sept./Oct., 440. Washington (1933). **a - 946**

Information on the equipment of a room in the basement of the Department of Commerce Building, Washington, for the purpose of testing the graduations of circles of theodolites used by the U. S. Coast & Geodetic Survey.

**An.** - Echo Sounding [*Scandalia per echum*]. Naut. Mag., Sept., 202-206. Glasgow (1933). **a - 947**

**An.** - Vapeurs auxiliaires de la Mission Hydrographique du « Giralda » [*Vaporales naves subsidiariæ ad missionem hydrographicam navis* « Giralda » *pertinentes*]. 1 pl., Rev. Hydrogr. XI, 1, 15-16. Monaco (1934). **a - 948**

Caractéristiques principales des petits vapeurs auxiliaires de même type, le « Castor » et le « Pollux », genre chalutier de 50 tonnes, dont on se sert pour les travaux de sondage allant jusqu'à la profondeur de 100 m.

**An.** - Le bâtiment hydrographe polonais O. R. P. « Mewa » - Détails supplémentaires [*Navis hydrographica Polona O. R. P.* « Mewa ». *Peculiaritates additiciæ*]. Rev. Hydrogr., XI, 1, 18. Monaco (1934). **a - 949**

Supplément à la note publiée dans la « Revue Hydrographique », X, 2, p. 11, 1933.

**An.** - Het Problema Van Snellius [*Snellius eiusque problema*]. De Zee, Juillet, 369-372. Den Helder (1933). **a - 950**

## Chartographia - Atlantes - Portulani.

**Almagià Roberto** -. Intorno al cartografo raguseo Vincenzo di Demetrio Volcio [*De chartographo Ragusino Vincentio Demetrio* Volcio]. Arch. Stor. per la Dalmazia, 202-206. Roma (1933). **a - 951**

Vincenzo Demetrio Volcio è l'autore di sette carte nautiche composte fra il 1592 e il 1607.

**Almagià Roberto** - Su un'antica carta della Dalmazia [*De vetere charta Dalmatiæ*]. Arch. Stor. p. la Dalmazia, 532-535. Roma (1933). **a - 952**

Carta composta fra il 1555 e il 1560. Descrizione della stampa in legno che porta la firma di Matteo Pagano.

**Bagrow Leo** - Manuskript-Atlanten des Battista Agnese [*Atlantes manuscripti ad Baptistam Agnese pertinentes*]. Peterm. Mitt., 7/8, 190-191. Gotha (1932). **a - 953**

Kritische Betrachtungen über das in 1931 erschienene Werk von H. R. Wagner (The Pap. Bibl. Soc. America, XXV, 1-110) und einige von dem Vf. formulierte Ergänzungen zu demselben.

**Bagrow Leo** - Wer ist der Verfasser der ältesten Separatkarten der drei Erdteile ? [*Quis veterrimas tabulas tres mundi singulas partes repraesentantes confecit ?*]. Peterm. Mitt., 9/10, 244. Gotha (1932). **a - 954**

Betrachtungen über das Werk von K. Miller : « Die ältesten Separatkarten der drei Erdteile », wahrscheinlich von Nikephoros Gregoras um 1350 in Konstantinopel entworfen.

**Baratta Mario & Visintin Luigi (Redattori)** - Atlante delle Colonie Italiane [*Atlas Coloniarum Italicarum*]. 113 ill., in calcografia ed indice dei nomi. Ist. Geogr. De Agostini. Novara (?). **a - 955**

**Baratta Mario & Visintin Luigi (Redattori)** - Grande Atlante Geografico. III Edizione [*Atlas Geographicus. IIIa Editio*]. 150 tav., 400 carte e piante. Testo illustrativo fisico-politico-economico sul retro di ogni tavola. Indice geografico di 120.000 nomi. Ist. Geogr. De Agostini. Novara (?). **a - 956**

**Barbier Olinto** - La carta internazionale del mondo alla scala di un milionesimo [*De charta internationali orbis ex modulo 1 : 1000.000*] 2 carte geogr. f. t., Universo, 5, 235-244. Firenze (1932). **a - 957**

Come nacque e come si affermò l'idea di una rappresentazione cartografica di tutta la superficie terrestre. Notizia delle caratteristiche della carta e delle norme di esecuzione fissate al Congresso di Parigi del 1913, rivedute e definite nel Congresso del Cairo del 1925 e in quello di Cambridge del 1928. L'Ufficio per informazioni e controllo, che ha sede a Southampton presso l' « Ordnance Survey Office », il quale pubblica annuali rapporti sull'andamento della pubblicazione. Il rapporto del 1930 (l'ultimo venuto alla luce) annuncia che i fogli fino allora pubblicati in piena conformità alle risoluzioni adottate erano 109 e 304 quelli che, pur non rispondendo rigorosamente a tutte le risoluzioni, potevano tuttavia esser compresi, in attesa della compilazione definitiva. Cenno sul contributo arrecato dall'Istituto Geografico Militare ai lavori in corso per la parte riguardante la cooperazione dell'Italia.

**Bourgonnier C.** - Note au sujet d'une Projection et d'un Diagramme pour l'étude et le tracé du Segment capable sphérique [*Agitur de proiectione quadam nec minus de diagrammate ad studendum inscribendumque segmentum capacem sphæricum*]. 12 pp., Imprim. Nat.. Paris (1933). **a - 958**

**Cahill B. J. S.** - La carte-papillon ou système de projection octaédrique du globe sur un plan [*Agitur de systhemate proiectionis ottoedricæ orbis*

*in planum*]. 1 fig., Géogr., LXI, 3/4, 284-286. Paris (1934). **a - 959**

Description d'une nouvelle méthode pour l'établissement d'une carte du monde d'une précision générale comparable à celle des atlas, continue comme un globe, sans les variétées d'échelles d'un atlas ordinaire, mais sans l'incommodité d'un globe, en coupant ce dernier par trois plans à angles droits les uns par rapport aux autres, l'un étant le plan de l'équateur et les autres, deux plans de méridiens.

**Caraci Giuseppe** - Di una nuova carta di Lopo Homen [*Charta nova ad Lopo Homen pertinens*] Riv. Geogr. Ital., IV/V, 149-168. Firenze (1933). **a - 960**

Si discute la questione sull'autenticità della carta Morrison attribuita a Lopo Homen. Gli archivi di Lisbona hanno consentito di trarre qualche frutto, sin dai primi ritrovamenti del Cortesao. L'interesse di questa scoperta consiste nella possibilità di illuminare, coi nuovi documenti, il progresso delle esplorazioni portoghesi in Oriente, ed i riflessi che queste esplorazioni trovano nella cartografia. La datazione del nuovo cimelio (Carta di Lisbona) aiuta poco a determinare quella della carta pisana propria del Lopo, dove il disegno si limita al territorio del cosidetto « portolano normale ». I soli elementi concreti che la carta somministri, inducono a credere che il disegno sia stato compiuto fra il 1536 e il 1551. Se l'analogia dello stile può dare qualche indizio sulla data, il confronto tra la pergamena di Lisbona e quella di Pisa dà l'impressione che esse siano quasi contemporanee.

**Chatterton Keble E.** - The Yachtsman's Pilot [*Liber de navigatione pro gubernatore pamphiliorum*]. 42 large scale plans and particulars of over 800 harbours and anchorages. Hurst & Blackett, Ltd. London (1933). **a - 961**

St. Abb's Head Great Yarmouth. Lowestoft to Ramsgate. Dover to Poole. St. Alban's Head to Dartmouth. Salcombe to the Scilly Islands. Land's end to Solway Firth. Isle of Man Harbours. Round Ireland. The Coast of Scotland.

The East coast of Scotland southwards. Foreign section, Part I: Ymuiden to Channel Islands. Foreign Section, Part II: St. Malo to Bordeaux, Canal Latéral de la Garonne, and Canal du Midi Bordeaux to Mediterranean: Sète to Toulon. Supplement. Index.

**Driencourt L. & Laborde J.** - Traité des projections des cartes géographiques à l'usage des cartographes et des géodésiens. 4 fasc. [*Tractatus proiectionum chartarum geographicarum quibus utuntur chartographi et geodetæ. Fasc. 4*]. diagr., 244, 338, 156 et 394 pp., Hermann, Paris (1932). **a - 962**

Cette oeuvre fondamentale a été entreprise par le premier des A. A. dans le but de donner une vue d'ensemble et d'obtenir la fusion des travaux de Germain et Tissot, en les complétant par les résultats des recherches récentes de M. Courtier sur l'emploi des coordonnées rectangulaires dans la computation de la triangulation. Le IV-ème fascicule, dû à la plume du Commandant Laborde contient un exposé de la nouvelle méthode de projection inventée par ce dernier et appliquée par lui à l'élaboration de la carte du Madagascar.

**Forni G.** - Carte e mezzi ausiliari per la navigazione ortodromica con speciale riguardo alla navigazione aerea [*Chartæ et instrumenta pro navigatione ortodromica. Agitur particulatim de navigatione aëria*]. 1 fig., Riv. Maritt., 6, 171-180. Roma (1933). **a - 963**

Breve esame delle carte e mezzi ausiliari per la navigazione ortodromica, specialmente in merito alla navigazione aerea.

**Gilette D. H.** - Superimposed Relief Maps [*Chartæ superpositæ pro relevamentis*]. Milit. Engr., Sept.-Oct., 436. Washington (1933). **a - 964**

**Grasso Renato** - Nuovi orientamenti della cartografia aerea internazionale [*Res novæ ac studia chartographiæ aëriæ internationalis*]. 8 fig., Riv. Aeron., 11, 205-233. Roma (1933). **a - 965**

L'A. esamina, illustra e commenta le recenti deliberazioni della Commissione Internazionale per la Navigazione Aerea che rinnovano completamente e determinano con maggiore precisione le precedenti risoluzioni adeguandole al progresso della tecnica cartografica, dell'aeronavigazione ed alle nuove esigenze del traffico aereo. Passa in rassegna critico-descrittiva i nuovi segni convenzionali, suggerisce alcune varianti alla tabella e dà un breve cenno esplicativo in forma piana, senza formule, sui diversi sistemi di proiezione adottati per le nuove carte.

**Guarnieri Giuseppe Gino** - Il Mediterraneo nella storia della Cartografia Nautica Medievale [*De Mari Mediterraneo pro historia chartographiæ nauticæ internationalis*]. Con un catalogo delle carte portolaniche, 6 tav. f. t., v + 132 pp., Stab. Tip. Editoriale Toscano. Casa Editrice « S. T. E. T. ». Livorno (1933). **a - 966**

Le origini. La carta nautica e le sue caratteristiche esteriori. I caratteri intrinseci delle carte nautiche. I precursori. Il primato italiano nella cartografia nautica mediterranea. Le scuole cartografiche italiane. I prototipi cartografici mediterranei. La configurazione del Mediterraneo secondo le carte nautiche medioevali. L'opera scientifica di Gerardo Kremer (Mercatore) nella cartografia nautica. Il tramonto della cartografia nautica medioevale. Catalogo delle carte nautiche mediterranee: A) fine del secolo XIII; B) Secolo XIV; C) Secolo XV; D) Secolo XVI; E) Secolo XVII. Elenco dei « Portolani scritti » del Mediterraneo.

**Gunn J. (edit.)** - Nelson's World Gazetteer and Geographical Dictionary with Map Supplement by Bartholomew [*Vocabularium geographicum universale* Nelson *nomine, omnia geographica continens. Adiungitur supplementum tabularum geographicarum per* Bartholomew *redactum*]. 575 pp. + 64 pp. of maps., Thomas Nelson and Sons, Ltd. London (1932).

(—) Abstr. by J. H. R. in Geogr. Journ. LXXX, 2, 169. London (1932). **a - 967**

**Hakkel J.** - Materials to the Cartography of the Kara Sea [*Res comparatæ pro chartographia Maris Karensis*] (In Russ., Engl. Summ.). 3 fig. & charts., Trans. Arct. Inst., X, 165-175. Leningrad (1933). **a - 968**

Results of the investigation which conducted to modifications in the cartography of the following islands of the Kara Sea: Sverdrup Island, Sidorov Island, Ujedinenije Island and Schmidt Island.

**Heck Conrado** - Costas do Brasil, Roteiro. 1ª Parte. 2ª Ediçao. Do Cabo Orange (Estado do Parà) ao Cabo S. Agostinho (Estado do Pernambuco) [*Litora Brasiliensia. Præcepta de cursu maritimo. Pars I.ª Editio altera*]. Direct. de Navegaçao, Div. de Hydrogr., Minist. de Marinha dos Estados Unidos do Brasil. Rio de Janeiro (1932). **a - 969**

Cette nouvelle édition des « Instructions Nautiques » contient des renseignements nouveaux sur le Service radio-météorologique des côtes brésiliennes, sur les services de prévision du temps et sur les signaux horaires radio-télégraphiques.

**Henney Frederic A.** - Photomapping Method used in Europe [*De relevamentis photographicis quibus in Europa utitur*]. Milit. Engr., May-June, 238-243. Washington (1931). **a - 970**

The A. shows that, by the improvements of the photo apparatus, the photomapping tends to substitute completely the ancient methods of mapping. He gives a description of the more usual methods of photomapping.

**Hermannsson Haldor** - The Cartography of Iceland [*De cartographia Islandica*]. Islandica, XXI, (1931).
(—) Abstr. in Geogr. Rev. XXII, 3, 490. New York (1932). **a - 971**
Historical notes on the cartography of Iceland.

**Hinks Arthur R.** - Maps and Survey [*Chartæ ac relevamenta*]. ills., diagrs. & facsimile-maps, University Press, xii + 284 pp. Cambridge (1933). **a - 972**
The present third edition of the book, following those printed in 1913 and 1923, has been largely rewritten by the author. The I Chapter gives a brief summary of the history of early maps with a description of some of them. The II chapter contains a discussion of the modern map and in one section, the new Ordnance Survey alphabets. One chapter is devoted to Exploratory Survey, and in the others the reader finds an account of Trigonometrical Survey, Property Surveys, Geodetic Survey, Photographic Surveying, and a description of certain Survey Instruments, including the prismatic astrolabe, and a brief account of the machinery of mechanical plotters for the use of making maps from air photographs.

**Kahle Paul** - A Lost Map of Columbus [*De amissa quadam charta Columbiana*]. 2 figs., Geogr. Rev., XXIII, 4, 621-638. New York (1933). **a - 973**
Description of a map discovered in 1929 in the Seraglio at Constantinople which probably is the very map presented by Piri Re'is to Sultan Selim I at Cairo in 1517. The present article considers only the Columbian features of this map, i. e. the long inscription on the Map, the Lesser Antilles, Haiti (Cipango) and Cuba, the date of Columbus map incorporated by Piri Re'is in his map, the Islands with the Parrots, and the literal translations of the legends on Piri Re'is map.

**Kahn L.** - Sur une extension de la Projection de Mercator : Les nouvelles cartes aériennes [*De extensione quadam proiectionis Mercatorianæ. Tabulæ aëriæ*]. Com. Mem. Acad. d. Marine, VIII, 63-79. Paris (1929). **a - 974**

**Kimble George H.** - The Catalan World Map of the Reale Biblioteca Estense at Modena [*Orbis tabula catalana in Bibliotheca Estensi Mutinensi*]. 1 map in 4 sheets., R. Geogr. Soc., 12 pp. London (1932). **a - 975**
Adequate picture of one of the more important mediaeval maps made prior to the great advance inaugurated by the Prince Henry the Navigator. It belongs to the group of Catalan maps, remarkable for the fairly accurate knowledge they display not only of the coasts frequented by European sailors but of the more remote interior parts of the Old World.

**Kimble George H.** - Portuguese Policy and Its Influence on Fifteenth Century Cartography [*Res politicæ Lusitanorum earumque influentia in chartographiam sec. XV°*]. Geogr. Rev., XXIII, 4, 653-659. New York (1933). **a - 976**
The author tries to explain the scarcity of map material bearing on African exploration in the fifteenth century by the policy of Portuguese Kings who decided on the suppression of all information likely to excite the interest or jealousy of other countries. West Africa on Fra Mauro's Planisphere and the national secret of the Portuguese in the fifteenth century.

**Koch Lauge** - Map of North Greenland, 1 : 300.000 [*Tabula Groënlandiæ Septentrionalis 1 : 300.000*]. 18 sheets and suppl. sheet in case, Geodet. Inst. Denmark., Copenhague (1933). **a - 977**
Surveyed by Lauge Koch in the years 1917-1923, the map covers the whole coastal belt of the extreme northwestern and northern Greenland between Cape York and Denmark Fjord.

**Kozhevnikov M. J. (Red.)** - Carte de la République Soviétique Autonome de la Jakoutie [*Charta Reipublicæ Sovieticæ Autonomæ Jakoutianæ*]. 1 carte, s. 6 feuilles. Acad. Sc., U. R. S. S. Léningrad (1932).
(—) Voir Réc. dans : Bull. Arct. Inst., 12, 433-435, 1933 par K. Salistschev). **a - 978**
Carte à l'échelle 1/2,000.000 de la République Soviétique de la Jakoutie, qui englobe une grande partie de la Sibérie Orientale et de la Mer d'Okhotsk.

**Laborde J.** - Sur les diverses méthodes permettant de réaliser rapidement une cartographie solide dans les pays tropicaux, principes généraux et application à Madagascar [*De methodibus variis quæ rapide carthographiam solidam in regionibus tropicalibus concedunt. Principia generalia applicationesque ad insulam* Madagascar]. La nouvelle carte au 10.000° et les cartes à grande échelle du Service géogr. du Madagascar, Bull. Géod. 31, 269-270. Paris-Toulouse (1931). **a - 979**
Aperçu de communication présentée à l'Un. Géod. Int. par l'A., du Serv. Géogr. de l'Armée franç., et de l'Artill. colon., rédigée pour informer des travaux faits par lui au Madagascar.

**Levrero Undelio** - Matteo Vinsoni. Contributo alla storia della cartografia genovese del secolo XVIII [*Matthæus* Vinsoni. *Contributio in historiam cartographiæ Genuensis sec. XVIII°*]. Genova, 12, 1165-1172. Genova (1932). **a - 980**
L'A. illustra la vita e l'opera dell'insigne cartografo ligure.

**Locchi D.** - Atlante geografico moderno [*Atlas geographicus modernus*]. 35 tav., G. B. Paravia e C., Torino (1932). **a - 981**
Edizione di Atlante scolastico per i testi di Geografia secondo i programmi delle Scuole medie.

**Longhena Mario** - L'Opera cartografica di L. F. Marsili [*Opus chartographicum Aloysii Ferdinandi* Marsili]. Sotto gli auspici del Comitato Nazionale Italiano di Scienze Storiche. (Pubblicazioni dell'Istituto di Geografia della R. Università di Roma. Serie A, n. 3). 4 tav. f. t., viii + 84 pp., Tip. Soc. An. Tip. « Leonardo da Vinci », Città di Castello. Roma (1933). **a - 982**
Si procede alla catalogazione, secondo le norme prescritte dalla Commissione di Geografia storica, di tutte le carte e dei piani delineati dal famoso geografo bolognese L. F. Marsili (conservati, in uno con tutti i voluminosi manoscritti marsiliani, nella Biblioteca Universitaria di Bologna) limitatamente alla parte riguardante territori non italiani.

**Luncke Bernhard** - Norges Svalbard- og Ishavs- Undersøkelsers Luft-kartlegning i Eirik Raudes land 1932 [*Relevamentum topographicum in Terra* Eirik Raude (*Groënlandia*) *peractum a. 1932 a Servitio pro inquisitionibus Norvegicis ecc.*]. 7 figs., Norsk Geogr. Tidsskr., (IV, 6), 2, 347-361. Oslo (1933). **a - 983**
The work of drawing maps has been going on here since 1929 comprising tide observations, photogrammetric and stereophotogrammetric measurements as well as measurements of the coastal outlines etc. The expedition described here in the Summer of 1932 had the opportunity of having Consul Lars Christensen's aeroplan « Oarrtsiluni » at its disposal. Instruction as to the drawing of maps. Equipment of the Aero-expedition. The course of the expedition. Results. Construction of the maps.

**Manley G.** - Saxton's Survey of Northern England [*Relevamenta e systhemate* Saxton *in Anglia nordica*]. Geogr. Journ., April, London (1934). **a - 984**

The maps by Christopher Saxton published between 1574 and 1579 provided material for English maps for a long period. From an historical and scientific point of view the study of these maps gives some interesting suggestions.

**Maslov V.** - Le microrelief et le levé aérophotographique [*De microrelevamentis deque relevamentis aëriophotographicis*]. 2 fig., Izv. Gos. Geogr. Obstsch. (Bull. Soc. Géogr. Etat), LXV, 2, 147-150. Leningrad (1933). **a - 985**

Deux exemples de levé aérophotographique qui démontrent que ces levés peuvent être des auxiliaires précieux pour l'étude des détails du microrelief des zones soumises à l'étude et à l'exploration géomorphologique, hydrogéologique et autres recherches analogues.

**Melluish R. K.** - An Introduction to the Mathematics of Map Projections [*Introductio in res mathematicas proiectionis cartographicæ*]. viii + 144 pp., University Press. Cambridge (1931). **a - 986**

**Monfreid Henry** - Secrets of the Red Sea (Translated by Helen Buchanan Bell) [*De mysteriis Maris Rubri*]. vii + 317 pp., Faber & Faber, Ltd. London (1934). **a - 987**

**Oortgijsen Kl. F.** - Historisch Genootschap « De kop van Noord-Holland met de eilanden Texel, Vlieland en Terschelling » [*Societas historica.* « *Pars superior Hollandiæ nordicæ insularumque* Texel, Vlieland *et* Terschelling]. 1 carta, Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, L, 1, 127-129. Leiden (1933). **a - 988**

Breve informazione sulla esposizione delle carte e dei disegni tenutasi a Amsterdam nel Settembre 1917, dove sono state esposte alcune carte antiche del 1300, specialmente della parte settentrionale dell'Olanda e delle isole menzionate nel titolo, da cui si vedono la trasformazione della costa e la formazione di nuovi « polders ». Inoltre vi sono delle carte riguardanti le dune, le dighe, per difendersi contro il mare, carte idrografiche, carte di porti, di isole e di canali. Proposta di formare una società storica chiamata secondo il titolo di sopra.

**Rude Gilbert T.** - Mapping the Ocean Floor [*De chartographia fundi oceanici*]. 7 figs., U. S. Nav. Inst. Proc., LX, 374, 509-521. Annapolis, Md. (1934). **a - 989**

Paper of historical character concerning world nautical charts. Improvements since the World War, both in methods and instruments. Progress of Hydrography: echo sounding.

**Salistschev K. A.** - Levé visuel à bord d'avion et son rôle dans l'élaboration de la carte à 1/1.000.000 [*Relevamenta ex aëroplanis. Quæstio de eorum momento pro elaboratione cuiusdam chartæ 1/1.000.000*]. Arctica, 1, 139-143. Léningrad (1933). **a - 990**

Importance de l'élaboration d'une carte au millionième des régions arctiques soviétiques; possibilité de l'emploi de l'avion pour les levés en vue de l'exécution de la carte; quelques considérations sur la méthode du levé visuel aérométrique. Avantages et désavantages de la méthode. Perspectives de son application dans le Nord soviétique.

**Salistschev K. A.** - L'Ile de Wrangel et ses cartes [*De insula Wrangelii eiusque chartis*] (En russe). 1 carte, Arctica, 1, 145-150. Léningrad (1933). **a - 991**

Histoire de la découverte de l'Ile de Wrangel; les premiers débarquements sur cette île en 1881; premier levé cartographique de l'île exécuté en 1911 par le navire hydrographe russe « Vajgatch »; autres expéditions postérieures qui ont visité l'île après la fondation d'une colonie stable par le gouvernement soviétique en 1927; élaboration d'une carte préliminaire de l'Ile Vrangel reproduite dans le texte de la note; nécessité de levé et d'exploration supplémentaires pour pouvoir dresser une carte exacte de l'île.

**Tortorici Pietro** - Intorno ad un problema sulle carte geografiche [*De problemate quodam circa chartas geographicas*]. Rend. Circ. Mat. di Palermo, LVII, 2, 210-234. Palermo (1933). **a - 992**

L'A. premette che A. Korkine determinò tutte le maniere di rappresentare sul piano una superficie di rotazione, in modo che aree corrispondenti fossero in un rapporto costante prefissato e, inoltre, che al sistema dei meridiani e dei paralleli corrispondesse, nella rappresentazione, un doppio sistema ortogonale. Suceessivamente V. Reina esaminò lo stesso problema con la condizione ulteriore che, sul piano, il sistema corrispondente ai meridiani ed ai paralleli fosse isotermo e lo affrontò con un metodo diretto, notevolmente semplice ed agile. È evidente che le soluzioni di questo secondo problema costituiscono una sottoclasse delle soluzioni del primo e l'A. si propone di caratterizzarla, riuscendo anche a ricondurre l'effettiva determinazione delle soluzioni della sottoclasse alla integrazione d'un sistema differenziale ordinario del primo ordine.

**Urvantzev N. N.** - The Cartography of Severnaja Zemlja (Northern Land) [*De chartographia in* Severnaja Zemlja] (In Russ., Engl. summ.). 1 chart, 5 tabl., Izv. Gos. Geogr. Inst. (Bull. Inst. Géogr. Etat), LXV, 6, 496-515. Moskva (1933). **a - 993**

An account of the exploration of Novaja Zemlja made by the expedition of the ice-breaker « George Sedov » in 1930-32. Results of astronomical, meteorological and other observations carried out and description of the apparatus used. Data of the topographic survey performed as compared with those of the Hydrographic Expedition of 1913. Description of Novaja Zemlja on hand of the map elaborated.

**Vivielle J.** - La carte des Côtes de Provence de M. de Séguiran (1633) [*Litorum Provincialium tabulæ ad M. de* Séguiran *pertinentes (1633)*]. 2 fig., Géographie, Terre, Air, Mer, LVII, 5, 397-403. Paris (1932). **a - 994**

Résumé du texte de l'enquête menée en 1633 par Henri de Séguiran sur les côtes de Provence par ordre du Cardinal de Richelieu dans le but de rechercher le lieu le plus favorable à l'installation d'un port pour les vaisseaux du roi, reproduit dans le tome III de la « Correspondance d'Henri Sourdin » publiée par Eugène Sue. Description d'une carte sur vélin conservée aux Archives du Service hydrographique de la Marine dessinée par I. Marets qui semble être la carte décrite par Honoré Bouche et qui, ainsi que les plans particuliers reproduits et mentionnés dans le présent article, était jointe au procès-verbal de sa mission par M. de Séguiran.

**Wagner Karl-Heinrich** - Die unechten Zylinder-Projektionen, ihre Anwendung und ihre Bedeutung für die Praxis [*De erratis proiectionibus cylindri. Quæstio de usu et momento pro practica*]. Abb. u. Taf. im Anhang., Aus d. Arch. Dtsch. Seewarte, 51, 4, 5-68. Hamburg (1932). **a - 995**

Nachdem der Vf. die Definition Tissot's der unechten Zylinderprojektionen wiedergegeben hat, schildert er die geschichtlichen Grundlagen der Projektionen und zwar die älteren Projektionen bis 1890, die moderne Entwicklung von 1890 an und formuliert die Probleme, deren Lösung die vorliegende Arbeit dienen soll: « Die grosse Mannigfaltigkeit und z. T. auch Zusammenhanglosigkeit der bis heute vorliegenden Entwürfe macht es notwendig, dass eine einheitliche, mathematische Form für diese Projektionsgruppe gefunden wird, die es gleichzeitig gestattet, alle weiteren Möglichkeiten der Bildung neuer Projektionen zu übersehen, und gegebenenfalls aus der Anzahl der noch möglichen Entwürfe den bisherigen in der einen oder anderen Hinsicht überlegenen zu entwickeln». Es wird ausserdem die Technik der unechten Zylinderprojektionen besprochen, wobei die Konstruktion auf graphischem Wege besonders berücksichtigt ist.

**Wedemeyer** - Bemerkung zur Arbeit: « Der meridianständige Littrowsche Kartenentwurf zum Gebrauch in polnahen Breiten ». Von W. Immler [*De observato opere: Proiectione inversa e systhemate* Littrow *qua utendum est in latitudinibus prope polos.* W. Immler *auctore*]. Ann. d. Hydrogr. XL, 5, 221. Berlin (1932). **a - 996**

Der Vf. der vorliegenden Bemerkung macht darauf aufmerksam, dass weder in der im Titel erwähnten Arbeit (s. « Ann. d. Hydrogr. », 1931, s. 462-465) noch in einer anderen desselben Verfassers: « Zur Zeichnung der Azimutgleiche in der Polarkarte » (« Arktis », 1931, 67-71) erwähnt wird, dass Wedemeyer bereits in den « Ann. d. Hydr. », 1918, 209-215, den Immlerschen Netzentwurf ausführlich behandelt und gezeichnet hatte, und dass schon auf Grund seiner Arbeit eine Karte für die Arktis-Fahrt des Zeppelins ausgeführt worden ist.

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**American Geographical Society** - A Catalogue of Maps of Hispanic America [*Catalogus chartarum Americæ Hispanicæ*]. 15 charts, xv + 287 + 254 + 217 + 295 pp. Maps of Hispanic America. Publ. N° 3, IV. New York (1930-1933). **a - 997**

Compiled from the collections of scientific periodicals, books, sheets and maps of several scientific institutions of America. The maps described number more than 15.000. See: Platt Raye R. Catalogue of Maps of Hispanic America. Geogr. Rev., XXIII, 4, 660-663. New York (1933).

**British Hydrographic Department** - Persian Gulf Pilot [*Portulanus Sinus Persici*]. 5 tabl., 8th ed. London (1932). **a - 998**

New volume of Sailing Directions cancelling the Seventh Edition, 1924, of the Persian Gulf Pilot, and supplement. A special appendix contains information on Tidal Streams, illustrated by 5 tables which give the rates of the semi-diurnal constituents of the stream at Springs and of the diurnal constituent due to the moon's greatest declination. Table V gives factors by which these rates are to be multiplied in order to obtain the rates at other astronomical conditions.

**British Hydrographical Department,** etc. - Use of the Terms « New Edition », « Reprint », etc. Emploi des expressions « Nouvelle Edition », « Nouveau Tirage », etc. [*Quo modo utitur locutionibus « Editio nova » ac « Nova exemplaria impressa », etc.*]. (En angl. & franç.). 1 table, Bull. Hydrogr. Int., 2, 19-24. Circulaire n° 1. Monaco (1934). **a - 999**

Information received from the British Hydrographic Department, the coast and Geodetic Survey and the Hydrographic Office of the United States of America with reference to resolution Charts, 2 and 2a, adopted by the Third International Hydrographic Conference, 1932.

**Bureau Hydrographique International** - A Standardised Form of Notices to Mariners Proposed by the Directing Committee of the I. H. B. Modèle type d'Avis aux navigateurs proposé par le Comité de Direction du B. H. I. [*Modulus typus libri in quo continentur præcepta ad usum navigatorum. Modulus proponitur a Comitato pro Directione Officii Hydrographici Internationalis*] (En angl. & franç.). Bull. Hydrogr. Int., 1, 6-9. Monaco (1934). **a - 1000**

Suggestions concernant les simplifications et les unifications susceptibles de fournir aux navigateurs de toutes nationalités des renseignements meilleurs, plus précis, plus commodes et plus intelligibles. Opportunité d'un ordre de séquence universel des détails et de l'adaptation d'une forme-type universelle pour les Avis aux Navigateurs. Résumé des points dont un plus grand compte doit être tenu pour accroître la valeur des Avis au point de vue international.

**Departamento Cartografico (Chile)** - Proyección conforme cilindrica, llamada Proyección de Mercator. Generalidades [*Proiectio Mercatoriana. Generalia*]. 5 anexos, Memorial Tecnico (Ejército de Chile), a. II, 7, 929-939. Santiago de Chile (1934). **a - 1001**

Carta confeccionada por el Instituto Geografico Militar. Esta abarca el territorio comprendido entre Arica y Puerto Montt.

**Directoria de Navegaçao** - Roteiro das Costas do Brasil. Do Rio de Janeiro ao Rio da Prata. P. III. I.a Ed. [*Præcepta nautica. Litora Brasiliensia a* Rio Janeiro *ad* Rio da Prata. *P. III*ª]. Direct. de Nav. Rio de Janeiro (1933). **a - 1002**

Ce nouveau volume complète la série des instructions nautiques des côtes du Brésil et contient des indications générales sur le Service radiométéorologique sur ces côtes, ainsi que sur les signaux horaires radiotélegraphiques de l'observatoire National de Rio de Janeiro.

**Hydrographic Office** - [*Portulani*]. London (1933). **a - 1003**

Volumes of Sailing Directions (revised) and Supplements.

**Hydrographic Office** - Naval Air Pilot Mexico, Corrected to May, 1, 1933 [*Liber navigationis aërionavalis. Regio Mexicana. Editio correcta ad diem 1 mensis Maii 1933*]. figs. & maps., U. S. Govmt. Print. Off., H. O. N°. 1932, ii - iii, 1-95. Washington, D. C. (1933). **a - 1004**

Part I: General information concerning routes, distances, regulations, etc. Part II: Detailed information on seaplane anchorages and landing fields.

**Hydrographic Office** - List of Lights in Siamese Waters for the Year 1934 [*Liber pharorum pro navigatione per mare ad* Siam *pertinens. a. 1934*]. Tables, Hydrogr. Off. Siam. Bangkok (1934). **a - 1005**

The arrangement of this new edition of the List of Lights in Siamese waters is in conformity with the decision of the last International Hydrographic Conference. The publication is printed in Siamese and English: a List of Light Buoys and Radio Time Signals is appended.

**Hydrographic Department** - [*Portulani*]. Tokyo (1933-34 & 1934-35).

(—) Indo Seigan Suirosi (West coast of India Pilot).

(—) Africa Tôgan Suirosi (East coast of Africa Pilot).

(—) Minami Taiheiyô Syotô Tôbu Suirosi (Eastern part of Southern Pacific Islands Pilot).

(—) Gôsyû Engan Suirosi (Australian Coasts Pilot). **a - 1006**

**Istituto Idrografico della R. Marina** - Portolano del Mediterraneo. Vol. 7. Costa Nord del Marocco e coste d'Algeria e Tunisia [*Portulanus Maris Mediterranei. Litus nordicum Mauretaniæ, litoraque Algeriensia et Tunetana*]. 2 fig. e tav. f. t., xxvii + 317 pp., Tip. Ist. Idrogr. della R. Marina. Genova (1933). **a - 1007**

**Istituto Idrografico della R. Marina** - Golfo di Lussinpiccolo [Lussinpiccolo. Porto Cigale Lussingrande] [*Sinus* Lussinpiccolo. Lussinpiccolo. *Portus* Cigale, Lussingrande]. Scala 1 : 10.000, N° 362, Ist. Idrogr. R. Marina. Genova (1933). **a - 1008**

**Istituto Idrografico della R. Marina** - Tirreno. Italia. Ancoraggi tra la Maddalena e la Costa Nord di Sardegna [*Mare Tyrrhenum. Portus ancoris ponendis inter* Maddalena *et litora nordica Sardiniæ*]. (Dai rilievi originali della R. N. « Washington » 1879 e da quelli successivi fino al 1932). Scala 1 : 10.000. N° 361, Ist. Idrogr. R. Marina. Genova (1933). **a - 1009**

**Istituto Idrografico della R. Marina** - Mediterraneo. Cirenaica. Ancoraggio di Bomba [*Mare Mediterraneum. Cirenaica. Portus ancoris ponendis in* Bomba]. (Dai rilievi originali della R. N. « Magnaghi », 1927). Scala 1 : 40.000, N° 475, Ist. Idrogr. R. Marina. Genova (1933). **a - 1010**

**Istituto Idrografico della R. Marina** - Da Dulcigno a Capo Rodoni [*A* Dulcigno *ad Caput* Rodoni]. Scala 1 : 80.000 (Dai rilievi della R. Marina Austro-Ungarica e della R. Marina Italiana 1928. N° 548). Ist. Idrogr. R. Marina. Genova (1933). **a - 1011**

**Istituto Idrografico della R. Marina** - Adriatico. Costa Orientale. Isole Grossa e Incoronata [*Mare Hadriaticum. Litus orientale. Insulæ* Grossa *et* Incoronata]. (Dai rilievi della Marina Austro-Ungarica. Scala 1 : 80.000. N° 525). Ist. Idrogr. R. Marina. Genova (1933). **a - 1012**

**Istituto Idrografico della R. Marina** - Adriatico. Italia. Da Vieste a Trani [*Mare Hadriaticum. A* Vieste *ad* Trani]. (Dai rilievi della spedizione idrografica del Cap. di Vascello A. Imbert 1873, della R. N. « Scilla » Com. Cap. di Fregata P. L. Cattolica 1898-99 e da quelli successivi fino al 1931. Scala 1 : 100.000. N° 30). Ist. Idrogr. R. Marina. Genova (1933). **a - 1013**

**Istituto Idrografico della R. Marina** - Tirreno. Italia. Rade di La Maddalena e di Santo Stefano [*Mare Tyrrhenum. Radæ* La Maddalena *et Sanctus Stephanus*]. (Dai rilievi originali della R. N. « Washington » 1879 e da quelli successivi al 1932). Scala 1 : 5000. N° 362. Ist. Idrogr. R. Marina. Genova (1933). **a - 1014**

**Istituto Idrografico della R. Marina** - Isole Lissa e Lesina. Adriatico Costa Orientale [*Insulæ Issa et Lesina. Mare Hadriaticum. Litus orientale*]. Scala 1 : 60.000 (Dai rilievi della Marina Austro-Ungarica. N. 534). Ist. Idrogr. R. Marina. Genova (1933-34). **a - 1015**

**Istituto Idrografico della R. Marina** - Planisfero dei fusi orari [*Planisphærium fusorum horariorum*]. Scala di 1 : 65.000.000 sull'equatore. N° 1001. Ist. Idrogr. R. Marina. Genova (1934). **a - 1016**

**Istituto Idrografico della R. Marina** - Isole Busi. S. Andrea. Pomo. Adriatico. Costa Orientale [*Insulæ* Busi, *Sanctus Andreas*, Pomo. *Hadriaticum. Litus orientale*]. Scala 1 : 80.000 (Dai rilievi della Marina Austro-Ungarica N. 533). Ist. Idrogr. R. Marina. Genova (1934). **a - 1017**

**Istituto Idrografico della R. Marina** - Catalogo delle carte e delle altre pubblicazioni [*Catalogus chartarum aliarumque publicationum*]. 6 carte f. t., 62 pp., Tip. dell'Ist. Idrogr. della R. Marina. Genova (1934). **a - 1018**

Avvertenze. Elenco delle carte in ordine geografico : Carte generali. Mare Tirreno. Sardegna. Corsica. Sicilia. Mare Jonio. Mare Adriatico. Laghi. Libia. Asia. Cina. Sud America. Oceano Artico. Spitsbergen. Carte speciali. Elenco delle carte in ordine numerico, in ordine alfabetico per località. Elenco delle pubblicazioni nautiche, tecniche e scientifiche.

**Kungl. Lotsstyrelsen** - [*Tabulæ hydrographicæ*]. Stockholm (1933-1934).

(—) Stockholm och Oeregrunds skärgårdar, chart for night navigation. n° 57, 1 : 50.000.

(—) Stockholms skärgård, Dalarö-Landsort. n° 237, 1 : 50.000.

(—) Baltic Sea. Landsort-Nyköping-Arkö. n° 239, 1 : 50.000.

(—) Kattegatt, entrances to Göteborg. n° 276 a, 1 : 50.000. **a - 1019**

**Marineleitung** - Verzeichnis der deutschen Admiralitätskarten und Seebücher [*Catalogus chartarum librorumque nauticorum ad Præfecturam Classis Germanicæ pertinentium*]. Marineleitung, Berlin (1933). **a - 1020**

Neue Ausgabe des « Verzeichnis », in welcher die Einleitung und die Ueberschriften in deutsch und englisch veröffentlicht worden sind. In der erwähnten Einleitung sind die Korrektionsmethoden für die deutschen Karten und nautischen Veröffentlichungen und die sich auf dieselben beziehenden Verkaufsregeln, welche diese Karten und Veröffentlichungen betrachten, behandelt.

**Marine Survey of India** - [*Tabulæ hydrographicæ*]. Calcutta (1932-1933).

(—) Hastings Harbour - Mergui Archipelago. 1 : 18.750.

(—) Northern Approaches to Hastings Harbour. 1 : 50.000.

(—) Eastern Approaches to Hastings Harbour. 1 : 50.000.

(—) Tellicherry Anchorages - West Coast of India. 1 : 25.000.

(—) Cannanore Anchorages - West Coast of India. 1 : 25.000.

(—) West Coast of India : Lat. 12° 0' N. to II° 20' N. 1 : 25.000.

(—) Approaches to R. I. M. Dockyard, Bombay. I inch/80 feet.

(—) Government Moorings - Bombay. 1:25.000.

(—) Soundings and Fixed Points from Bell Passage to Brothers Island : West Coast of Siam (in 2 sheets). **a - 1021**

**Ministerie van Defensie (Afd. Hydrogr.)** - Catalogus van Kaarten en Boekwerken [*Elenchus chartarum nauticarum et periodicorum*] (Engl. rés.). Charts. 79 pp., 's-Gravenhage (1931). **a - 1022**

Title of charts, scale, date of printing, price. List of publications issued by the International Hydrographic Bureau at Monaco. Alphabetical index of names in titles of charts and plans.

**Norges Sjökarteverk** - [*Portulani*]. Oslo (1933-1934).

(—) Revised Editions : Den Norske Los III. **a - 1023**

**Norges Sjökarteverk** - [*Tabulæ hydrographicæ*]. Oslo (1933-1934).

(—) Porsangen: Fra Repvag til Kistrand. nº 105, 1 : 500.000.

(—) Norge - Island. nº 304, 1 : 1.400.000.

(—) Andenes - Fiskerhalvöya. nº 312. 1:500.000. **a - 1024**

**Servicio Hydrografico** - [*Tabulæ hydrographicæ*]. Madrid (1933).

(—) Desde Punta Lucero hasta Cabo Ogono. nº 942, 1 : 40.009.

(—) Los Cabezos e Isla de Tarifa. nº 628 a, 1 : 25.000.

(—) Barra y Fondeadero de Barbate. nº 621 a, 1 : 100.000.

(—) Rada y Fondeadero de Agadir. nº 181 a, 1 : 100.000. **a - 1025**

**U. S. Department of Commerce. Coast & Geodetic Survey** - Catalogue of Nautical Charts, Coast Pilots, Tide Tables, Current Tables. Tidal Current Charts, and Airway Maps [*Catalogus chartarum nauticarum, librorum pro navigatione litorea, tabularum pro æstibus, tabularum pro currentiis, chartarum pro æstuum currentiis, chartarum pro navigatione aëria*]. 25 charts, num. tables. 60 pp., U. S. Dpt. Comm., Coast & Geod. Surv., Serial 554. Washington, D. C. (1933). **a - 1026**

Information regarding items sold by the Coast and Geodetic Survey of the Department of Commerce and its authorized sales agents. Nautical charts are grouped in the following order: Atlantic and Gulf coasts, Puerto Rico, Virgin Island, the Canal Zone, the Pacific coast, Alaska, the Hawaiian and Guam, and the Philippine Islands. There are also listed United States coast pilots and intracoastal waterways (inside route) pilots, tide tables, current tables, tidal current charts, airway maps, miscellaneous maps and plans, and Philippine topographic maps and books on triangulation.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Supplement to United States Coast Pilot. Philippine Islands. Second (1927) Edition. Part I: Luzon, Mindoro, and Viscayas [*Supplementum ad librum pro navigatione litorea Provinciarum Foederatarum Americæ. Insulæ Philippinæ. Editio altera. Pars I.ª* Luzon, Mindoro *et* Viscayas]. U. S. Govmt. Print. Off., Coast & Geod. Surv., Ser. nº 399-6, 1-13. June 22, 1933. Washington, D. C. (1933). **a - 1027**

**U. S. Department of Commerce. Coast & Geodetic Survey** - Supplement to United States Coast Pilot. West Indies. Puerto Rico and Virgin Islands. Third (1929) Edition [*Supplementum ad portulanum litoreum Provinciarum Foederatarum Americæ. Indiæ Occidentales.* Porto Rico *Insulæque Virginis. Editio III.ª a. 1929*]. U. S. Govmt. Print. Off., Coast & Geod. Surv., Ser. nº 446/4, 1-8, Oct., 7, 1933. Washington, D. C. (1933). **a - 1028**

**U. S. Department of Commerce. Coast & Geodetic Survey** - Supplement to United States Coast Pilot. Philippine Islands. Part II: Palawan, Mindanao, and Sulu Archipelago. Second (1930) Edition [*Supplementum ad portulanum litoreum Provinciarum Foederatarum Americæ. Insulæ Philippinæ. Pars II.ª* Palawan Mindanao *et archipelagus* Sulu. *Editio altera (1930)*]. U. S. Govmt. Print. Off., Coast & Geod. Surv., Ser. nº 474-3, 1-12. Washington, D. C. (1933). **a - 1029**

**U. S. Department of Commerce. Coast & Geodetic Survey** - Supplement to United States Coast Pilot. Alaska. Part II: Yakutat Bay to Arctic Ocean. Third (1931) Edition [*Supplementum ad portulanum litoreum Provinciarum Foederatarum Americæ. Regio Alaskiana. Pars II.ª A Baja* Yakutat *ad Oceanum Arcticum. Editio III.ª (1931)*]. U. S. Govmt. Print. Off., Coast & Geod. Surv. Ser. nº 507-2, 1-26. March 27, 1933. Washington, D. C. (1933). **a - 1030**

**U. S. Department of Commerce. Coast & Geodetic Survey** - Supplement to United States Coast Pilot. Alaska. Part I: Dixon Entrance to Yakutat Bay, Edition of 1932 [*Supplementum ad portulanum litoreum Provinciarum Foederatarum Americæ. Pars I.ª Accessus ad Fretum* Dixon *et Bajam* Yakutat. *Editio 1932*]. U. S. Govmt. Print. Off., Coast & Geod. Surv., Ser. nº 545-2, 1-5. Febr. 20, 1933. Washington, D. C. (1933). **a - 1031**

**U. S. Department of Commerce. Coast & Geodetic Survey** - United States Coast Pilot. Atlantic Coast. Section B. Cape Cod to Sandy Hook. Third Edition. [*Supplementum ad portulanum litoreum Provinciarum Foederatarum Americæ. Sectio II.ª a Capite* Cod *ad* Sandy Hook. *Editio III.ª*]. 2 maps., num. tabl., 400 pp., U. S. Govmt. Print. Off., Coast & Geod. Surv. Ser. nº 556. Washington, D. C. (1933). **a - 1032**

This publication covers the Atlantic coast from Race Point, Cape Cod, to Sandy Hook, including Nantucket, Vineyard, and Long Island Sounds, New York Harbor, Hudson River, and tributaries. It is based mainly upon the work of the U. S. Coastal and Geodetic Survey, including the results of a special examination in 1932.

**U. S. Department of Commerce. Coast & Geodetic Survey** - United States Coast Pilot. The Hawaiian Islands, Second Edition [*Portulanus litoreus Provinciarum Foederatarum Americæ. Insulæ Hawaianæ. Editio altera*]. sever. tables, 1 map., 128 pp., U. S. Govmt. Print. Off., Coast & Geod. Surv., Ser. nº 558. Washington, C. D. (1933). **a - 1033**

This publication includes the islands and reefs extending westward to Midway and Kure Islands. The aids to navigation are corrected to January 10, 1933. Its contents is as follows: Index map. General information. Descriptions and sailing directions, Hawaii. Appendix: Coast Pilots and field stations of the Coast and Geodetic Survey. Navigational aids and the use of the charts. Remarks on the use of charts. Use of oil for modifying the effect of breaking waves. Rules of the road. international Harbor regulations, Territory of Hawaii. Meteorological table.

**U. S. Department of Commerce. Coast & Geodetic Survey** - United States Coast Pilot. Atlantic Coast Section A. St. Croix River to Cape

Cod. Third Edition [*Portulanus litoreus Provinciarum Foederatarum Americæ. Litora Atlantica. Sectio A. Flumen Sanctæ Crucis. Caput* Cod. *Editio III.ª*]. tabl., U. S. Govmt. Print. Off., Coast & Geod. Surv. Ser. nº 561, 322 pp. Washington, D. C. (1933). **a - 1034**

This publication covers the coast from St. Croix River to Race Point, Cape Cod, including Cape Cod Bay. It is based mainly upon the work of the United States Coast & Geodetic Survey, including the results of a special examination in 1932 The aids to navigation are corrected to May 20, 1933.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Supplement to United States Coast Pilot. Gulf Coast. 1926 Edition. Key West to Rio Grande [*Supplementum ad portulanum litoreum Provinciarum Foederatarum Americæ.* Gulf Coast. *Editio 1926*]. tabl., U. S. Govmt. Print. Off., Coast & Geod. Surv., Ser. nº 324-8, 1-53. Dec. 14, 1933. Washington, D. C. (1934). **a - 1035**

**U. S. Department of Commerce. Coast & Geodetic Survey** - Supplement to United States Coast Pilot. Alaska. Part I: Dixon Entrance to Yakutat Bay. Eight (1932) Edition. [*Supplementum ad portulanum litoreum Provinciarum Foederatarum Americæ. Regio Alaskiana. Pars Iº. Accessus ad Fretum* Dixon *et Bajam* Yakutat. *Editio VIII 1932*]. U. S. Govmt. Print. Off., Coast & Geod. Surv., Ser. nº 545-2, 1-11. Febr. 12, 1934. Washington, D. C. (1934). **a - 1036**

**U. S. Department of Commerce. Coast & Geodetic Survey** - Supplement to United States Coast Pilot. Atlantic Coast. Section B: Cape Cod to Sandy Hook. Third (1933) Edition [*Supplementum ad portulanum litoreum Provinciarum Foederatarum Americæ. Litora Atlantica. Sectio B. A capite* Cod *ad* Sandy Hook. *Editio IIIº (1933)*]. U. S. Govmt. Print. Off., Coast & Geod. Surv., nº 556-1, 1-13. Jan. 31, 1934. Washington, D. C. (1934). **a - 1037**

**U. S. Hydrographic Office** - Sailing Directions for the Southwestern Coast of Africa from Cape Palmas to Cape of Good Hope. Third Edition [*Portulanus pro navigatione in litora sudorientalia a Capite* Palmas *ad Caput Bonæ Spei*]. tabl. & maps., U. S. Hydrogr. Off., nº 105. Washington, D. C. (1932). **a - 1038**

The present supersedes the second edition of the volume H. O. 105 dated 1923, and contains a number of innovations. A certain number of paragraphs have been brought up to date, and at the end of the volume there is a special chapter on ocean passages describing them in detail. A sketch map shows the tracks followed by steamships and distances across the Atlantic and Indian Oceans.

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**An.** - Os quatro Periodos ou Escolas da Cartografia portuguesa [*Historia chartographiæ Lusitanæ*]. Anais Club Milit. Nav., Mai-Juin. 135-143. Lisboa (1933). **a - 1039**

**An.** - Photography of Plans and Charts [*Photographia tabularum et chartarum*]. (En franç. et angl.). Bull. Hydrogr. Int., 1, 8-9. Monaco (1933). **a - 1040**

Note sur un article intéressant concernant la photographie des plans et des cartes, publié par R. Reiss dans les « Allgemeine Vermessungs-Nachrichten ».

**An.** - Symbols and Abbreviations [*Symbola et abbreviationes*]. Bull. Hydrogr. Int., I, 18. Monaco (1934). **a - 1041**

Notice sur la publication par la Direction d'Hydrographie de Rio de Janeiro, Brésil, d'un petit fascicule donnant les symboles et abréviations qui seront employés sur les cartes brésiliennes à partir de l'année 1934.

**An.** - Ancient Cartography [*Chartographia vetus*] (In Engl. & French.). Bull. Hydrogr. Int., 4, 82. Monaco (1934). **a - 1042**

Summary of the contents of an account issued by the Division of Maps of the Library of the Congress (U. S. A.), of its activities and of the more important acquisitions during the fiscal year ending June 1933.

**An.** - Référence aux longitudes sur les cartes [*Dati de longitudinibus chartarum*]. (En franç. & angl.). Bull. Hydrogr. Int., 6, 111-112. Monaco (1933). **a - 1043**

Quelques détails supplémentaires fournis au Bureau Hydrographique International, contre sa demande, par le Directeur de la Nautische Abteilung der Marineleitung sur les données concernant les longitudes géographiques du levé continental de l'Allemagne, par rapport au déplacement des méridiens de 9'' vers l'Est effectué sur les nouvelles cartes allemandes.

**An.** - Mode d'indication sur les cartes des zones examinées au moyen de la drague hydrographique [*Agitur de zonis quæ examinantur dracæ hydrographicæ auxilio. Quæstio de methodibus pro earum inscriptione in tabulis*]. Bull. Hydrogr. Int., 7, 119-122. Monaco (1933).

(—) Voir: Lettre circulaire nº 5 H., 1932 du B. H. I. et Bull. Hydrogr. Int., VIII, 194 pp., IX, 209 pp., X, 230 pp., XI, 249 pp. (1932). **a - 1044**

Liste des réponses à la lettre-circulaire nº 5-H/1932 reçues au Bureau Hydrographique International. Propositions élaborées en tenant compte des discussions tenues à ce sujet ainsi que des systèmes suggérées dans les réponses reçues concernant l'indication sur les cartes des zones examinées au moyen de la drague hydrographique par le Comité de Direction du B. H. I.

**An.** - Symbols and Abbreviations: Areas of Magnetic Disturbances [*Symbola et abbreviationes*] (In Engl. & French). 2 figs., Bull. Hydrogr. Int., 12, 208. Monaco (1933). **a - 1045**

Reproduction of two symbols for areas of magnetic disturbance in use on some charts published by Sweden and Denmark respectively.

**An.** - L'aperçu de la cartographie étrangère [*Compendium cartographiæ exteræ*]. (En russe). Izv. Gos. Inst. Geodez. i Kartogr., 24-29. Leningrad (1931). **a - 1046**

**An.** - The Development of the Collection of Maps at the University of Chicago [*De augmento collectionis chartarum geographicarum in Universitate Cicagensi*]. Science, LXXIX, 2043, 176. New York (1934). **a - 1047**

## Maritimi Portus - Canales - Aestuaria.

**Assante Arturo** - Il porto di Napoli. Saggio storico, geografico, economico. Guida descrittiva, amministrativa, tariffaria e commerciale [*Portus Neapolitanus. Compendium historicum, geographicum, oeconomicum*] (Sotto gli auspici del Consiglio Provinciale dell'Economia Corporativa). 16 fig., 1 tav. f. t., 629 pp., Tip. Stab. Ind. Edit. Merid. Morace Edit., Napoli (1934). **a - 1048**

Il presente saggio è un primo tentativo di uno studio completo sull'emporio marittimo di Napoli. L'A. fa precedere alla « guida pratica » un sintetico studio storico, geografico, economico, che, passando in rassegna le caratteristiche del porto, attraverso i vari secoli, analizza e mette in rilievo due punti: *a*) Quale è il retroterra effettivamente servito dal porto di Napoli e quale il traffico che ha possibilità di essere incrementato; *b*) Secondo il concetto moderno di « specializzazione » cui tendono gli empori marittimi, quali sono i coefficienti del traffico — merci e passeggeri — degni di essere vagliati e sorvegliati.

**Baldacci A.** - Le Bocche di Cattaro [*Catarum eiusque accessus*]. Riv. di Geogr., Nuova Serie, 1, 16-19. Roma (1933). **a - 1049**

**Blossac J.** - Les ports atlantiques du Nord marocain [*De portibus atlanticis in Mauretania nordica*]. Corresp. d'Orient., a. XXVI, 435, 114-117. Paris (1934). **a - 1050**

**Cagli Henri** - Σχέδιον διαρρυθμίσεως καὶ ἐπεκτάσεως τοῦ λιμένος Πειραιῶς [*Ratio portus Piraei amplificandi et in melius reddendi*]. 7 diagr., Τεχνικὰ Χρονικὰ, I, 1 Mai, 445-462. Athenae (1932). **a - 1051**

**Canihac Gérard** - Le Port de Bordeaux. Son trafic maritime actuel et son importance économique [*Portus Burdigalensis eiusque hodierna frequentia mercium momentumque oeconomicum*]. 15 fig., 182 pp., G. Basuyau. Toulouse (1933). **a - 1052**

**Cleef (Van) Eugen** - Danzig and Gdynia [*Dantiscum et Gdynia*]. 3 figs., 2 tabl., Geogr. Rev., XXIII, 1, 101-107. New York (1933). **a - 1053**

Account of the important literature concerned with the respective position and rivalry between two of the great ports of the Baltic, Danzig and Gdynia. Danzig as a harbour. Prewar traffic through Danzig. Post-war traffic through Danzig. The foreign trade of Poland. Gdynia as a port. Gdynia versus Danzig.

**Deutsch Rich.** - Geographie der Haupt- und Grossverkehrshäfen Grossbritanniens unter besonderer Berücksichtigung der Zeit nach dem Kriege [*De geographia præcipuorum portuum commercialium Anglicorum, præcipue post bellum omnium maximum*]. aus: Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LI, 2, 286. Leiden (1934). **a - 1054**

**Dirkzwager G.** - Guide to the New Waterways for 1932, 58th Year [*Liber novi cursus maritimi pro a. 1932*]. 200 pp., Dirkzwager's Ship Agency. Maasluis (1932). **a - 1055**

Containing all particulars regarding the new waterways and the Harbour of Rotterdam.

**Dover Arthur W.** - Trenton's First Year as a Deep Water Port [*Portus* Trenton *maxima præditus altitudine*]. 1 fig., Naut. Gaz., CXXIV, 4, 11-12. New York (1934). **a - 1056**

Trenton's importance as a heavy tonnage center and strategic position as a reshipping point. Its establishment as a distribution center for ceramic materials, and for paper makers materials.

**Gabrielsky Harry** - L'importance de Gdynia pour la politique commerciale de la Pologne [*Momentum urbis Gdyniæ pro commerciali politica Polonorum*]. Rev. Econ. Int., XXIV, IV Oct., 154-160. Bruxelles (1932). **a - 1057**

**Garcia Figueras T.** - En torno al Estrecho de Gibraltar. Un proyecto fantástico de la « Atlantropa » [*De freto Gaditano*]. Resumen mens. de Estadist. del Com. Ext. de España, Junio. Madrid (1933). **a - 1058**

**Goblet Y. M.** - La Silésie-Baltique et le Port de Gdynia [*De Silesia-Baltica deque Portu Gdyniæ*]. 5 grav., 1 carte, Géogr., Air, Terre, Mer, LXII, 1/2, 1-16. Paris (1934). **a - 1059**

I. Déséquilibre économique de la Pologne morcelée; II. La Silésie-Baltique; III. Gdynia: histoire du port de Danzig et aperçu historique sur la construction du port de Gdynia; caractéristiques de l'emplacement de ce dernier port, données statistiques sur son trafic; IV. De la Silésie à la mer.

**Gray Alex** - Saint John Harbor. 1 fig., Naut. Gaz., CXXIV, 19, 4-6. New York (1934). **a - 1060**

The harbor is one of the oldest in Canada. Some historical hints. Economical situation. Pier and quay. Discussion on their construction.

**Humbert Jean** - Ports de Yougoslavie [*De portibus ad Yougoslaviam pertinentibus*]. 1 phot., La Méditerranée, IV, 1.er Mai, 80-81. Marseille (1932). **a - 1061**

**Jontel Georges G.** - Les grands ports coloniaux français. Pointe-Noire [*De magnis portibus colonialibus Gallicis. Portus* Pointe-Noire]. fig., phot. L'Afr. Franç., XLII, Sept., 532-542. Paris (1932). **a - 1062**

**Kantz Erich** - Der Hafen von Vlissingen. Seine Stellung und Entwicklungsaussichten im internationalen Verkehr [*Portus* Vlissingen *eiusque positio ac possibilitas progrediendi*]. Abb. & Kart., 401 S. Verl. Fischer Jena (1933). **a - 1063**

Im ersten Teile des Buches bespricht Vf. die heutigen Verhältnisse, die Entwicklung des Handels und des Verkehrs des Hafens von Vlissingen. Der zweite Teil schildert die Entwicklungsaussichten des Hafens von Vlissingen, dessen günstige geographische Lage und bequeme Verkehrsmittel mit dem Binnenlande ihn in der Zukunft als einen gefährlichen Konkurrenten des Hafens von Antwerpen bezeichnen.

**Kekoni Karl** - The Ports of Finland [*De portibus ad Finlandiam pertinentibus*]. Econ. Geogr., VIII, July, 217-244. Worcester (1932). **a - 1064**

**Lapicque P. A.** - Le Port du Tonkin [*Portus* Tonkin]. 1 fac-similé, 3 cartes, 64 pp., Impr. d'Extrême Orient. Hanoï (1932). **a - 1065**

**Léotard Jacques** - Marseille port maritime et aérien [*Portus Massiliensis pro navigatione maritima et aërionavigatione*]. 1 plan, diagr., La Méditerranée, IV, 1.er Mars, 17-20. Marseille (1932). **a - 1066**

**Lepine K.** - Le canal « Staline » entre la Mer Blanche et la Mer Baltique [*Canalis* Stalin *nomine inter mare Album et Mare Balticum*]. 6 fig., 6 tabl., Vodn. Transp., 12, 5-10. Moskva (1933). **a - 1067**

Description d'un nouveau système de canaux qui permet de réduire de 4000 km. le parcours entre la Baltique et la Mer Blanche. Topographie de la région traversée par les canaux ; sa géologie ; quelques détails de construction des écluses faisant part de la voie navigable et quelques indications concernant le système d'alimentation du canal. Description succincte des digues et barrages et principales caractéristiques des travaux hydro-techniques exécutés au cours de la construction du canal, dont la longueur, qui est de 227 km., est supérieure à la longueur de toutes les voies navigables artificielles existantes, telles p. ex. le canal de Suez et le canal de Panama. Néanmoins sa construction a pu être achevée en 20 mois seulement, battant ainsi tous les records précédents.

**Ljachnitzkij V. E.** - Methodik hydrologischer Untersuchungen bei Hafenforschungen nach den Errungenschaften der letzten 15 Jahre [*Methodice inquisitionum hydrologicarum in portibus studendis novissimis 15 annis*] (In russ., dtsch. rés). Mém. Inst. Hydr., X, 337-343. Léningrad (1933). **a - 1068**

Schilderung einer seit 15 Jahren angewandten Methodik hydrologischer Untersuchungen bei Hafenarbeiten, welcher folgendes zu Grunde liegt: das geographisch-hydrologische Prinzip der Forschungen, komplexe stationäre und Expeditionsarbeit, Verwertung der in wissenschaftlicher Hinsicht genaueren Bearbeitungsverfahren, Anwendung neuer Instrumente und ein besseres Instruieren.

**Masson Paul** - Les Bouches-du-Rhône. Encyclopédie départementale. Première Partie. Des Origines à 1789 [*Accessus ad Rhodanum. Encyclopedia dipartimentalis. Pars I.ª Ab originibus ad a. 1879*]. Nombr. fig., phot., cartes, lxxxii + 419 pp., I, H. Champion. Paris (1932). **a - 1069**

Dans le Tome: Préface générale par l'A. susindiqué; puis: `Les Origines, Géologie, Paléontologie, Préhistoire par M. Dalloni, H. De Gérin-Ricard, L. Laurent, J. Repelin.

**McLellan Harold J.** - Saint John, Canada's Great National Port of the Atlantic [Saint John Canada's *magnus portus oceani Atlantici*]. 5 figs., Naut. Gaz., CXXIV, 19, 7-9. New York (1934). **a - 1070**

Final phase of a ten-million-dollar reconstruction program pertaining to this port, and shipping facilities.

**Mecking L.** - Japans Häfen, ihre Beziehungen zur Landesnatur und Wirtschaft. [*De portibus ad Japoniam pertinentibus pro oeconomia ac natura regionis*]. 56 Abb., 85 Kart. u. Diagr., Mitt. Geogr. Ges., XLII, 592 S. Hamburg (1931). **a - 1071**

Das vorliegende bedeutende Werk besteht aus zwei Teilen. Im ersten allgemeinen Teile beschreibt Vf. Japan im ganzen: sein Klima, seine Küstenlinie und seine Geschichte auf der See. Der zweite Teil behandelt die japanischen Häfen, ihre historische Entwicklung und Bedeutung im Leben Japans.

**Miller Roscoe R.** - Hudson Bay and its Ports [*De baja Hudsonia eiusque portibus*]. 2 figs., chart and phot., Bull. Geogr. Soc., XXX, 207-213. Philadelphia, Pa. (1930). **a - 1072**

**Mott-Smith May** - Africa from Port to Port [*De navigatione præter litora africana*]. xiv + 424 pp. Hutchinson & Co. Ltd. London (1934). **a - 1073**

**Paravici Eugen** - Ueber verschleppte Flussmündungen auf den Salomonen [*De quibusdam accessibus ad flumina in insulis Salomonis*]. Geogr. Anz., XXXIII, 4, 97-99. Gotha (1932). **a - 1074**

**Pawlowski Aug.** - La course au tonnage: les grands ports français. Le port de Rouen [*De magnis portibus Gallicis. Portus Rotomagensis*]. La Navigation du Rhin, X, Févr. Strasbourg (1932). **a - 1075**

**Pondevaux Léon** - Le mouvement commercial du port de Strasbourg [*Frequentia commercialis portus Stratisburgiensis*]. Géogr., Terre, Air, Mer, LXI, 5/6, 364-365. Paris (1934). **a - 1076**

Données numériques sur le trafic du port de Strasbourg comparées avec sa situation sous le régime allemand.

**Pouder G. H.** - The Port of Baltimore. 4 figs., Naut. Gaz., CXXIV, 24, 11-12 & 31. New York (1934). **a - 1077**

Its improvement following American business. Port's trunk line and terminal railroads. Some statistical data.

**Rouch A.** - Le Maroc maritime [*De Mauretania maritima*]. 16 pl., cartes dont 13 plans de ports., Rev. d. Géogr. Maroc., 277-432. Casablanca (1932). **a - 1078**

**Sauls C. E.** - Mobile's Port Traffic on Upgrade [*De progressibus commercialibus portus* Mobile]. Naut. Gaz., CXXIV, 11, 11-13. New York (1934). **a - 1079**

Physical improvements of the port of Mobile, including the deepening of the outer bar ship channel. Bay channel from the port to the Gulf of Mexico. Statistical information about the traffic.

**Sermet J.** - Le port de Santander [*Portus* Santander]. Rev. Géogr. Commerc., LVI, 4e Trim. Bordeaux (1932). **a - 1080**

**Smigorzewski Casimir** - Poland's Access to the Sea [*De maritimis accessibus Polonis*]. G. Allen & Unwin Ltd. London (1934). **a - 1081**

On the port of Gdynia and the necessity of other Polish ports.

**Steinert Herrmann** - Die Randstaaten-Häfen, ihr Ausbau und ihr Verkehr [*De portibus nationum finitimarum eorumque muneribus ac frequentia mercium*]. Osteuropa, Juli, 574-584. Berlin (1932). **a - 1082**

Statistische Daten über die Häfen: Riga, Libau, Reval, Windau, Leningrad, Memel, Koenigsberg.

**Šviatecki Kazi** - Rozwój portu Gdanskiego [*De progressibus portus Dantisci*]. 13 fig., 8 tabl., 309 pp., Instytut Baltycki. Torun (1932). **a - 1083**

Sur l'état économique et politique du port.

**Vermole Ettore** - Il Castello di Gallipoli [*Castellum Callipolis*]. La Modernissima. Lecce (1933). **a - 1084**

Illustrazione storica architettonica di questo antico, cospicuo castello.

**Wilson Arnold T.** - The Suez Canal : its Past, Present and Future [*Canalis* Suez *tempore acto, hodierno, futuro*]. 1 sk.-map. Univ. Press., xvi + 224 pp. Oxford (1933). **a - 1085**

An attempt to elucidate the very complicated matter of the Suez Canal Company's concession. History of the Canal, including that of the waterway that links the Red Sea with the Mediterranean, from the days before the Trojan War. Career of de Lesseps ; the part played by the English Government ; international questions bound up with « neutral » highway in peace and war.

**Winkers Joseph H.** - The Port of Savannah, Ga. 4 figs., Naut. Gaz., CXXIV, 5, 6-9. New York (1934). **a - 1086**

The traffic of cotton. Statistical hints. Description of transportation facilities. Industrial prominent place of Savannah.

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**Carnegie (Centre Européen de la Dotation)** - Dantzig et quelques aspects du problème germano-polonais [*Dantiscum ac problemata Germanico-Polona*]. vi + 318 pp., Bull. 1-2-3-4-5. Paris (1932). **a - 1087**

Il s'agit de 9 études de plusieurs auteurs bien connus pour leur compétence dans les questions internationales.

**Ministry of Public Works. Egypt. (Physical Department)** - The Nile Basin [*Bacinus Niliacus*]. Num. tabl., 259 pp., Suppl. to Vol. IV, Paper N° 31, Govmt. Press. Cairo (1933). **a - 1088**

Ten-Day Mean and Monthly Mean Discharges of the Nile for the Years 1928-1932 and Normals for the period 1912-1932.

By H. E. Hurst, Director General Phys. Dpt. and P. Phillips, Director Hydrol. Serv. Phys. Dpt.

**Nederlandsche Maatschappij voor Nijverheid en Handel** - Beschouwingen over de haven van Rotterdam [*Observationes circa portum Roterodamiensem*]. Nijg & Van Ditmar N. V. Rotterdam (1932). **a - 1089**

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**(p. f.)** - Traffico nel Canale di Suez nel 1933 [*Frequentia mercium per canalem* Suez *a. 1933*]. Riv. Maritt., Anno LXVII, 9 (Suppl.) 51-60. Roma (1934). **a - 1090**

Articolo ricavato dal Bull. Décadaire del Canale del 5-7 Giugno e da altri numeri dello stesso bollettino. Notizie statistiche e confronti col Canale di Panama.

**An.** - Fleuves, Canaux et Ports : Notes Bibliographiques [*Flumina, canales et portus. Notæ bibliographicæ*]. 286 pp., Assoc. Perm. Int. des Congrès de Navigat. Bruxelles (1932). **a - 1091**

**An.** - Où en est la côte française des Somalis ? [*De litoribus Somaliæ ad Galliam pertinentibus*]. 3 fig., L'Afr. Franç., XLII, Nov. 657-663. Paris (1932). **a - 1092**

**An.** - Il Canale fra il Mar Baltico ed il Mar Bianco [*Canalis inter Mare Balticum et Mare Album*]. Boll. Soc. Geogr. It., X, 4/5. Roma (1933). **a - 1093**

Opere di escavazione di questo Canale lungo 226 chilometri che traversa la penisola di Carelia, ricca di boschi, carbone e granito.

**An.** - The Port of Genoa-Italy. 7 figs., Naut. Gaz., CXXIV, 1, 7-11. New York (1934). **a - 1094**

Geographical position. Historical hints. The recent works and facilities of the harbour. Development of Genoa as a port of importation and exportation. The Italian Riviera.

**An.** - The Port of Stockholm, Sweden. 7 figs., Naut. Gaz., CXXIV, 2, 6-10. New York (1934). **a - 1095**

Historical hints. The commerce. Chief articles of export. Communications. Description of the harbour and recent facilities. The suburbs.

**An.** - The Port of London. 6 figs., Naut. Gaz., CXXIV, 3, 6-10. New York (1934). **a - 1096**

Enormous importance of this port. Brief description of the docks. Some statistical commercial information. Total lineal quayage.

**An.** - The Port of Hamburg. 5 figs., Naut. Gaz., CXXIV, 7, 9-10. New York (1934). **a - 1097**

Geographical position of the port. Its importance. The character of Hamburg as a Free Port. Methods of trans-shipment. Imports and exports.

**An.** - The German Seaport of Bremen. Naut. Gaz., CXXIV, 7, 11-13 & 30. New York (1934). **a - 1098**

On the geographical location of Bremen and its importance for ocean-going vessels. The traffic. Improvements. Description of new facilities.

**An.** - The Port of Tampa, Fla. 4 figs., Nat. Gaz., CXXIV, 12, 6-8 & 29-30. New York (1934). **a - 1099**

Some historical sketches. Development of the Port of Tampa seriously handicapped in recent years because of its lack of a drydock. Brief description of all facilities.

**An.** - The Port of Callao, Peru. 8 figs., Naut. Gaz., CXXIV, 13, 6-11 & 30. New York (1934). **a - 1100**

Description, with illustrations, of the Port of Callao. Artistical hints. New port development. Business conditions in Pera. Statistical information.

**An.** - A Port of New York Report. Naut. Gaz., CXXIV, 13, 13, New York (1934). **a - 1101**

Information about the publication of a new edition of « The Port of New York ». This report is published in 3 parts : 1) containing the general report ; 2) the detailed description of piery, wharves and docks ; 3) the maps. Copies of the report may be obtained by interested parties on application to the Superintendent of Documents, Govmt. Print. Off. Washington.

**An.** - Ports of Port Arthur, Sabine, Beaumont Orange, Tex. Naut. Gaz., CXXIV, 13, 29. New York (1934). **a - 1102**

Announcement of the publication of a revised edition of Port Series Report N° 14 on « The Port of Port Arthur etc. ». The report contains information with regard to port and harbor conditions, port customs and regulations, services and charges fuel and supplies and all important commerce and shipping facilities.

**An.** - Key West, Southern Gateway to America [Key West, *accessus meridionalis ad Americam*]. 9 figs., Naut. Gaz., CXXIV, 14, 5-7. New York (1934). **a - 1103**

Location of Key West. Historical remarks. Actual conditions. Facilities for shipping.

**An.** - Antwerp Confident of Future [*Antuerpia spectat res futuras*]. 6 fig., Naut. Gaz., CXXIV, 14, 8-10 & 29. New York (1934). **a - 1104**

Actual conditions. The railroads serving the quays. Other shipping facilities. Ships lines. The hinterland of the port of Antwerp.

**An.** - Valparaiso. The Pearl of the Pacific. 8 figs., Naut. Gaz., CXXIV, 15, 7-11 & 30. New York (1934). **a - 1105**

Economical information. Protective works of the port. Antofagasta. Tourist traffic.

**An.** - Foreign Shipping at the Port of Philadelphia [*Frequentia mercium portus Philadelphiae*]. Naut. Gaz., CXXIV, 15, 13. New York (1934). **a - 1106**

Arrivals and sailings of vessels. Imports and Exports.

**An.** - The Port of Guayaquil, Ecuador's Commercial Center. 6 figs., Naut. Gaz., CXXIV, 16, 6-9. New York (1934). **a - 1107**

The location of Guayaquil. Some historical remarks. Port facilities. Statistical information.

**An.** - Brazilian Ports and Commerce. Santos. The World's Greatest Coffee Port. 6 fig., Naut. Gaz., CXXIV, 17, 6-9. New York (1934). **a - 1108**

Economical information. Principal export commodities. Principal imports. Ship construction. The port.

**An.** - Montevideo-Uruguay Outlet to World Commerce [Montevideo. *Momentum eius pro commercio Uruguaiano*]. 5 figs., Naut. Gaz., CXXIV, 18, 6-10. New York (1934). **a - 1109**

Historical-geographical abstract. Economical statistics. Advice for the future.

**An.** - Buenos Aires as Port and City. 7 figs., Naut. Gaz., CXXIV, 20, 5-8. New York (1934). **a - 1110**

Historical hints of the struggle for independence of Buenos Aires' pioneers. Need of a port. Rapid progress. Description of port works and facilities.

**An.** - Bordeaux, son port autonome, son activité maritime, industrielle et commerciale [*Portus autonomus Burdigalensis eiusque activitas maritima, industrialis et commercialis*]. nombr. fig., Le Sud-Ouest Econ., nº spéc. 237, 634-758. Bordeaux (1933). **a - 1111**

## CHEMIA ET PHYSICA MARIS.

### Chemia et Physica - Salsedo et temperatura - Transparentia - Densitas - Evaporatio - Aquae chimici componentes.

**Atkins W. R. G.** - The Rapid Estimation of the Copper Content of Sea-water [*De existimatione rapida äeris quod in aqua marina continetur*]. Journ. Mar. Biol. Assoc., XIX, 1, 63-66. Plymouth (1933). **a - 1112**

This content can be rapidly determined using the sodium diethyl-dithiocarbamate method followed by extraction with chloroform. References.

**Atkins W. R. G. & Poole H. H.** - The Use of Cuprous Oxide and Other Rectifier Photo Cells in Submarine Photometry [*Usus oxidi cuprici et aliarum rectificantium photocellularum in photometria submarina*]. 1 fig., Journ. Mar. Biol. Assoc., XIX, 1, 67-72. Plymouth (1933). **a - 1113**

Photo-electric cells of the rectifier type are useful for approximate measurements of light intensity, in air or under water, using a low-resistance galvanometer, the current through which may be reduced by a special shunt keeping the circuit resistance constant. References. (Author).

**Bigelow H. B.** - Physical Study of the Shelf Waters, Cape Code to Chesapeake Bay [*Studium physicum aquarum continentalium a promunturio* Cod *ad Bajam* Chesapeake]. Woods Hole Oceanogr. Inst., Rep. 1930-32, 31. Woods Hole, Mass. (1933). **a - 1114**

Horizontal projections for temperature and salinity at various depths levels, prepared for most of the cruises of the « Albatross II »; calculation of the dynamic contours for several of the months.

**Bigelow Henry B.** - Physical Oceanography of the Waters on the Continental Shelf, Cape Cod to Chesapeake Bay. [*Oceanographia physica aquarum Plateæ continentalis a promunturio* Cod *ad Bajam* Chesapeake]. Woods Hole Oceanogr. Inst., Rep. 1930-32, 38. Woods Hole, Mass. (1933). **a - 1115**

Brief account of the research performed by the « Atlantis » during the year 1932.

**Bigelow Henry** - Studies of the Waters on the Continental Shelf, Cape Cod to Chesapeake Bay. I: The Cycle of Temperature [*Studium aquarum continentalium a promunturio* Cod *ad Bajam* Chesapeake. *Pars Iª: Cyclus temperaturæ*]. 66 figs., 135 pp., Papers in Phys. Oceanogr. and Meteorol., II, 4, Woods Hole Oceanogr. Inst., Woods Hole, Mass. (1934). **a - 1116**

**Brooks Charles F.** - Measurements of Sea Surface Temperature [*Mensurae temperaturæ ad maris superficiem*]. Rep. Comm. Subm. Config. & Oceanogr. Circul., Nat. Res. Counc., 1932, 90-101. Washington, D. C. (1932). **a - 1117**

Continued operation of sea-water thermographs in American waters. Canadian work on surface-temperatures of Western North Atlantic. New installations during the year. Improvements in sea-water thermographs and their operation. Synoptic charts from sea-water thermograms. Measurement of sea temperature on express liners. Intake vs. bucket.

**Brooks C. F., Church P. E. & Allan K. B.** - Studies of Thermal Distribution at the Surface of the Northwestern Atlantic, Based on Thermograph Readings on Commercial Steamship Routes

[*De distributione temperaturæ ad superficiem Oceani Atlantici Nord-occidentalis ex registrationibus apparatuum thermometrographicorum præter mercatoriarum navium cursum*]. Woods Hole Oceanogr. Inst., Rep. 1930-32, 31. Woods Hole, Mass. (1933). **a - 1118**

Brief account of thirty-seven synoptic charts of surface temperatures of the Atlantic, west of 62° W. Long. and north of 30° N. Lat. elaborated on base of thermograph records collected from January 1929 to May 1931.

**Brooks C. F. & Harwood E. M. Jr.** - Studies of the Thermal Distribution at the Surface of the Western North Atlantic, Based on Thermograph Records on Commercial Steamship Routes [*De distributione temperaturae ad superficiem Oceani Atlantici Nord-occidentalis ex registrationibus apparatuum thermometrographicorum præter mercatoriarum navium cursum*]. Woods Hole Oceanogr. Inst., Rep. 1930-32, 29. Woods Hole, Mass. (1933). **a - 1119**

Brief account of the work started in 1929 of the drawing of weekly synoptic charts of surface temperatures of the Atlantic, west of the longitude of Bermuda to the Straits of Florida, and north of the Latitude of San Juan, P. R.

**Brujewicz S. W. & Blinov L. K.** - Estimation of Silica in Sea Water [*Existimatio silicii in aqua marina*]. (In Russ., Engl. rés.). Bull. State Oceanogr. Inst., U. S. S. R., 14, 44-45. Moscow (1933). **a - 1120**

**Brujewicz S. W. & Karpova N. P.** - Changes of temperature and of pH in Buffer Solutions [*Variationes temperaturae et* pH *in solutionibus occludentibus* (Buffer Solutions)]. (In Russ., Engl. rés.). Bull. State Oceanogr. Inst. U. S. S. R., 14, 55-64. Moscow (1933). **a - 1121**

**Brujewicz S. W. & Skopintzew B. A.** - Temperature and Salt Corrections in the Determination of pH in Sea Water [*Correctiones temperaturæ et salsedinis in determinando pH aquæ marinæ*] (In Russ., Engl. rés.). Bull. State Oceanogr. Inst. U. S. S. R., 14, 3-32; 33-43. Moscow (1933). **a - 1122**

**Buch Kurt** - Hydrografisk-Kemiska Studier uti Petsamo-Fjorden jämte angränsande delar av Barentshavet [*Studia hydrographico-chemica in fiordo* Petsamo *et propinquitatibus*] (Dtsch. Rés.). 2 Abb., 4 Tab., 2 Kart., Fennia, LVII, 4, 1-29. Helsinki (1933). **a - 1123**

Ergebnisse der vom Vf. im Sommer 1931 gemachten hydrographisch-chemischen Forschungen im Petsamo-Fjord nebst angrenzenden Teilen des Barents-Meeres. Organisation und Ausrüstung. Die hydrographischen Verhältnisse des Petsamo-Fjords. Mineralische Nährstoffe und biochemische Verhältnisse. Das Kohlensäuregleichgewicht im Verhältnis zur Atmosphäre. Literaturverzeichnis. Anhang: eine schematische Tiefenkarte und eine hydrographische Profilkarte des Petsamo-Fjordes.

**Buch Kurt** - Der Borsäuregehalt des Meerwassers und seine Bedeutung bei der Berechnung des Kohlensäuresystems im Meerwasser [*De acido borico eiusque continentia in aqua marina. Agitur etiam de eius momento ac significatione in calculando systhemate acidi carbonici in aqua marina*]. 1 Taf., 4 Tab., Rapp. Pr.-Verb., Cons. Expl. Mer, LXXXV, Append. 71-75. Copenhague (1933). **a - 1124**

Ergänzung zum Bericht über die im Frühjahr 1931 in Helsingfors von einer Arbeitskommission der Internationalen Meeresforschung ausgeführten Untersuchungen, an Hand einer spektrographischen Untersuchung über den Borgehalt des Meerwassers, welche bewies, dass dieser bedeutend höher ist, als bisher allgemein angenommen wurde. Berechnung der Einwirkung der Borsäure, die als ein integrierender Bestandteil der spezifischen marinen Grundstoffe zu betrachten ist, auf das Kohlensäuregleichgewicht.

**Buch Kurt & Gustafsson Charley** - Der Salz- und Temperaturfehler von Thymolblau [*De errore in determinandis salsedine ac temperatura, cæruli thymoli auxilio*] (Engl. Ausz.). 1 Fig., 4 Tab., Journ. Cons. Int. Expl. Mer, IX, 2, 173-180. Copenhague (1934). **a - 1125**

In der letzten Zeit ist man vor allem zum Thymolblau als Farbeindikator bei der kolorimetrischen pH-Bestimmung des Meerwassers übergegangen. Es fehlen aber für ihn bis jetzt genügend zuverlässige und speziell auf das Meerwasser bezogene Bestimmungen des Salz- und auch des Temperaturfehlers. Vorliegende Arbeit bezweckt die Ausfüllung dieser Lücke.

**Buch K. & Witting R.** - Etude systématique de balance de l'acide carbonique entre la mer et l'atmosphère [*Studium systhematicum permutationis acidi carbonici inter mare et atmosphæram*]. Assoc. Océanogr. Phys. Union Géod. Géoph. Int. Pr.-Verb., 1, 45-47. Helsingfors (1934). **a - 1126**

**Carter Neal M.** - Variations in Annual Sea-Water Temperatures [*De variationibus in annuis temperaturis aquæ marinæ*]. Ann. Rep. Biol. Board Canada, 1932, 79. Ottawa (1933). **a - 1127**

Results of computation and plotting of seven-day moving average for each day of twelve years' records at William head near Victoria by means of mechanical integration of a quantity representing the annual duration of a temperature above and below the 12-year average temperature, which show that although the upward trend is not so regular as first supposed, it is nevertheless quite definite. Recurrence of warm cycles during each year, as a very pronounced feature of the figures obtained.

**Carter Neal M. & Tully J. P.** - Oceanography of the Strait of Georgia [*De oceanographia Freti Georgiani*]. Ann. Rep. Biol. Board. Canada, 1933, 73. Ottawa (1934). **a - 1128**

Brief account of investigation carried out in order to ascertain the time of minimum vertical stability of sea-water and maximum uniformity in concentration of dissolved chemical constituents in the open strait, approximately five miles east of Nanaimo, and of a series of determinations of surface chlorinity and temperature at 15-minute intervals made on several crossings of the strait.

**Chauchard Paul** - Sur la teneur en oxygène dissous des eaux de la Seine maritime [*De oxygeno soluto in aquis Sequanæ maritimæ*]. C. R. Acad. Sc., CIIC, 6, 594-596. Paris (1934). **a - 1129**

Expériences faites au cours de la croisière du « Pourquoi Pas ? » lequel dut rester dans l'estuaire de la Seine, du 23 septembre au 13 octobre de l'an 1933.

**Clarke George L.** - Observations on the Penetration of Daylight into Mid-Atlantic and Coastal Waters [*De lucis penetratione in aquam Oceani Atlantici*]. 5 fig., 3 tabl., Biol. Bull., LXV, 2, 317-337. Lancaster, Pa. (1933).

(—) See: Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, Append. 47-51. Copenhague (1933). **a - 1130**

Measurements in the mid-Atlantic, in the Gulf of Maine, and in Woods Hole Harbor. Photometers employed. The most transparent water encountered was in the Sargasso Sea. Observations under varying conditions. References.

**Clowes A. J.** - Hydrology of the Bransfield Strait [*De hydrologia in Freto* Bransfield]. Discovery Rep., IX, 1-64. Cambridge (1934). **a - 1131**

**Danilčenko & Spino** - Sur la loi de variation du coefficient de carbonisation dans l'océan mondial [*De variatione coefficientis carbonisationis in oceano*]. Bull. Acad. Sc., X, Léningrad (1933). **a - 1132**

**Deacon G. E. R.** - A General Account of the Hydrology of the South Atlantic Ocean [*Relatio generalis de hydrologia Oceani Atlantici*]. Discovery Rep., VII, 171-238. Washington (1933).

(—) See rés. : H. A. Marmer : « Oceanography of the South Atlantic Ocean », Geogr. Rev., XXIV, 3, 500-501. New York (1934). **a - 1133**

Brief summary report of the oceanographic researches conducted in connection with the study of whales and whaling in the Falkland Islands Dependencies in the South Atlantic and Southern oceans since 1925 by the Discovery Committee. The author discusses the temperature, salinity, and oxygen, phosphate, and nitrate content of the waters of the region under consideration. Some hints on the currents existing in the area.

**De Buen Fernando** - Les caractères des eaux de Guipuzcoa [*De aquis apud* Guipuzcoa *earumque peculiaritatibus*]. 11 fig., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXVII, 49-53. Copenhague (1934). **a - 1134**

Compte rendu des résultats d'observations méthodiques des variations des conditions de température et de salinité des eaux côtières de la province basque de Guipuzcoa, effectuées pendant une série de mois en 1915 et en juillet-août 1932.

**De Buen Rafael** - Nuevos datos sobre caracteres oceanográficos del mar de España y costas del Portugal (Campañas del « Xauen » en 1932) [*Dati novi circa peculiaritates oceanographicas maris ad Hispaniam litoraque Lusitana pertinentis a. 1932*]. 6 fig., Inst. Esp. Oceanogr. Notas y Resúm., Serie II, 75, 1-14. Madrid (1933). **a - 1135**

Estudio sobre algunos datos que se obtuvieron aprovechando los viajes que el guardacostas « Xauen » tuvo que efectuar en junio de 1932, para transladarse desde el Cantábrico al Mediterráneo. Temperaturas, salinidades, densidades.

**De Buen Rafael** - Régime hydrologique dans la Mer d'Espagne et sur les Côtes Portugaises, en 1932 [*Regimen hydrologicum maris ad Hispaniam litoraque Lusitana pertinentis a. 1932*]. 6 fig., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXVII, 45-48. Copenhague (1934). **a - 1136**

Résultats des stations effectuées en juin et août dans la Mer d'Espagne et le long des côtes Portugaises. Déterminations de la température, de la salinité et de la densité des eaux entre la surface et 500 mètres de profondeur. Caractéristiques du régime hydrologique de la région.

**Demel Kazimierz** - Z pomiarów termicznych Baltyku [*De temperatura in aquis Polonis Maris Baltici*]. 1 carte h. t., Kosmos, LVII, 1/4, 97-119, 159-177. Lwów (1932).

(—) Trav. Stat. Marit. de Hel (1932-1933). **a - 1137**

Les observations ont été faites en deux points strictement déterminés (54° 36' N, 18° 47' 5 E) et (54° 37' N, 18° 51' E) chaque fois en 5 profondeurs. Les moyennes thermiques sont présentées sur un dessin. Les observations ont permis de constater une périodicité des variations thermiques dans les couches profondes de l'eau, correspondant à la périodicité de l'apparition des dépressions dans l'atlantique Nord.

**Dons Carl (Edit.)** - O. Nordgårds målinger av havvannets temperatur i Trøndelag 1922-1930 [*De mensuris peractis a* O. Nordgård *de temperatura in aqua marina apud* Troendelag *1922-1930*]. 4 Tab., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 5, 16-19. Trondheim (1934). **a - 1138**

I risultati delle misurazioni eseguite in 4 stazioni nel Trondhjemsfjord durante 1906-1910 in confronto a quelle degli anni 1922-1930 esposti in tavole. La temperatura media annuale, molto difficile a determinare a causa delle grandi variazioni di temperatura dell'acqua nel Trondhjemsfjord, è stimata a 7,2° C. a una profondità di più di 200 m. Influenza sul clima attorno al fjord.

**Dons Carl (Edit.)** - O. Nordgårds målinger av havvannets temperatur i Nord-Norge 1929 [*De mensuris temperaturæ aquæ marinæ Norvegiæ septentrionalis a. 1929 per* O. Nordgård *peractis*]. 3 Tab., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 6, 20-23. Trondheim (1934). **a - 1139**

Le tavole sui risultati delle misurazioni nel 1929 e per una parte anche dal 1899 danno le temperature e le loro variazioni nelle acque fra Trondheim e Hammerfest. L'influenza della temperatura sulla presenza di *Lophohelia*.

**Geissler H.** - Untersuchungen an der Pyknosonde während der Kattegat-Fahrt mit der «Hunte» im Herbst 1931 [*Inquisitiones, pykno-scandalii auxilio, in navi* Hunte *peractæ autumno 1931, perdurante traiectu per* Kattegat]. 1 Tab., 2 Taf., Ann. d. Hydrogr., LXII, 8, 322-326. Berlin (1934). **a - 1140**

Bericht über das Ergebnis der an der Pyknosonde an Bord der « Hunte » ausgeführten Versuche, Salzgehalt und Temperatur der Wassersäule allein mit der Pyknosonde zu bestimmen, und über den gesetzmässigen Fehler der Pyknosondemessung, aus welchem es hervorkommt, dass die Pyknosonde weniger geeignet ist, exakte Salzgehalts- oder Dichtewerte zu liefern, dass man aber vielleicht bei geschickten Arbeiten mit ihr imstande sein kann, periodische Aenderungen im Aufbau einer Wassersäule mit gut ausgebildeter Sprungschicht festzustellen.

**Geissler H.** - Zur Korrekturformel für die Richterschen Kippthermometer [*De formula ad corrigendum thermometrum reversibile e systhemate* Richter]. Ann. d. Hydrogr., LXII, 9, 378-382. Berlin (1934). **a - 1141**

An Hand der Arbeiten von Schumacher, Hidaka und dem Vf. wird die Genauigkeit der verschiedenen Korrekturformeln für das Richtersche Kippthermometer besprochen. In einem Nachtrage werden die Formeln von Hidaka und von W. Hansen zwischeneinander verglichen.

**Gila y Esteban Frutos A.** - Sobre el empleo de distinta « Agua Patron » y Buretas, en la determinación de Halógenos (método Mohr-Knudsen) en el agua del mar [*De utendis ampullulis in determinandis halogenis aquæ marinæ*]. Inst. Esp. Oceanogr. Notas y Resúm., Serie II, 70, 1-14. Madrid (1933). **a - 1142**

Estudio de la posibilidad de utilización de la agua normal de Copenhague y de otra agua patron para las investigaciones en los mares de Málaga y de Santander. Soluciones tipos. Determinaciones.

**Granqvist Gunnar** - Regelmässige Beobachtungen von Temperatur und Salzgehalt des Meeres Juli 1931-Juni 1932 [*Observationes temperaturæ ac salis continentia in aqua marina a mense Julio 1931 ad mensem Junium 1932*]. Tab., 2 Kart.,

Merentutkimuslaitoksen Julkaisu (Havsforskn. Inst. Skr.) 1-44. Helsinki (1933). **a - 1143**

Die Beobachtungsorte. Die Beobachtungen und die Instrumente. Die Bearbeitung der Beobachtungen und die Aufstellung des Beobachtungsmateriales. Tiefenbeobachtungen an den Jahresstationen 1931-VII - 1932-VI. Tiefenbeobachtungen an den Sommerstationen 1931-VII - 1932-VI. Oberflächenbeobachtungen an den Sommerstationen 1931-VII - 1932-VI.

**Granqvist Gunnar** - The Thalassological Summer Cruise in 1932 [*Navigatio thalassologica æstate 1932*]. Tabl., 1 map., Merentutkimuslaitoksen Julkaisu (Havsforskn. Inst. Skr.), 89, 16 pp. Helsinki (1933).

(—) The Thalassological Summer Cruise in 1933 90, 16 + v pp. Helsinki (1933). **a - 1144**

The results are expressed in tables concerning temperature, salinity, density ($\sigma_t = (S_t - 1)\ 1000$), hydrogen ion activity (PH), oxygen contents, percentage of oxygen saturation and alcalinity as well as meteorological data for different depths, temperature, and salinity of surface water.

**Granqvist Gunnar** - Regular Observations of Temperature and Salinity in the Seas around Finland, July 1932-June 1933 [*Observationes temperaturæ et salsedinis marium quæ Finlandiam circumdant a mense Julio 1932 ad mensem Junium 1933 peractæ*]. 2 figs., Merentutkimuslaitoksen Julkaisu (Havsforskn. Inst. Skr.), 92, 45. Helsinki (1934). **a - 1145**

After a general survey concerning the localities of observation, the instruments used and the computation of observations and arrangements of tables, the values concerning observations in the depth at year-stations and summer-stations, 1932-VII - 1933-VI as well as surface observations at year-stations and summer-stations, (temperature and salinity), 1932-VII - 1933-VI are expressed in tables.

**Hachey H. B.** - Hydrography of the Waters of the Halifax Area [*De hydrographia regionis* Halifax]. Ann. Rep. Work. Biol. Board Canada, 1932, 24. Ottawa (1933). **a - 1146**

Observations on the salinity and temperature of both off-shore and in-shore waters of the Halifax area ; the three distinct bodies of water noted ; the upward trend of the temperature ; fluctuation of the bottom and surface temperatures in the in-shore area within fairly wide ranges.

**Hachey H. B.** - Comparative Surface Water Temperatures [*Comparationes inter temperaturas aquarum ad superficiem*]. 1 table, Ann. Rep. Work. Biol. Board Canada, 1932, 24-25. Ottawa (1933). **a - 1147**

Results of the observations made at a number of stations established at representative points along the Atlantic coast. Table showing the monthly means of the surface water temperatures for August and February of 1931 for various points illustrating the differences observed in general throughout the period of observations, 1929 to 1932.

**Harwood E. Monroe & Brook Charles F.** - Monthly Sequence of Sea-Surface Temperature on the New York-San Juan Steamship Route [*Series menstruæ temperaturæ aquarum superficialium præter cursum pyroschaforum inter* New York *et* San Juan]. 2 figs., 3 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Nat. Meet., Apr. 27-29, 1933, 173-180. Washington, D. C. (1933). **a - 1148**

Comment of the record provided since April, 1926, by the steamship « Coamo » of the Puerto Rico Line, New York to San Juan of the surface-temperature at the depth of the ship's sea-water intake, determined by means of a Negretti and Zambra sea-water thermograph. Tables of average sea-water temperature, 1927-1932, and of monthly surface-temperature departures in degrees centigrade, 1927-32. Tables containing statements on monthly air-temperatures at the Blue Hill Observatory, monthly sea-surface temperatures taken on steamships of Puerto Rico Line, 1927-32, monthly departures from 5-year means of air-temperatures at the Blue Hill Observatory, and of sea-surface temperatures on the same steamships, 1927-32. Table with data on the widths in nautical miles of six temperature-divisions for route New York to San Juan, 1929-1932.

**Hauser Walter** - Bemerkungen zu den Korrektionsformeln für das Tiefsee-Umkippthermometer [*De formulis pro correctione thermometrorum abyssalium reversibilium*]. Ann. d. Hydrogr., LXII, 4, 145-147. Berlin (1934). **a - 1149**

Kritische Bemerkungen zu den Ausführungen von K. Hidaka und A. Schumacher über neue Korrektionsformeln zur Umkippthermometer Ablesung. (S. « Ann. Hydr. », 1933, S. 75 ff., « Mem. Imp. Mar. Obs. ». Kobe Japan, V, 1, 11, 1932).

**Helland-Hansen Björn** - The Sognefjord Section. Oceanographic Observations in the Northernmost Part of the North Sea and the Southern Part of the Norwegian Sea [*Sectio in* Sognefjord. *Observationes oceanographicæ in extrema regione septentrionali Maris Nordici et in regione meridionali Maris ad Norvegiam pertinentis*]. 7 figs., James Johnstone Mem. Vol., 257-274. Liverpool (1934). **a - 1150**

I. Earlier investigations ; II. Investigations in later years ; III. Variations in temperature and salinity, especially of the Norwegian Atlantic Current ; IV. Local variations ; V. Dynamic calculations.

**Idrac P.** - Recherches sur les mouvements et fluctuations de température des eaux sous-marines en Méditerranée [*Investigationes in motus ac fluctuactiones temperaturæ aquarum submarinarum Maris Mediterranei*]. 11 fig., Ann. Inst. Océanogr., XIV, 2, 21-35. Paris (1934). **a - 1151**

Etude systématique des mouvements et fluctuations de température des eaux sous-marines en divers points de la baie de Villefranche-sur-Mer et de celle de Monaco à diverses profondeurs, accomplie non pas seulement par des sondages périodiques, mais en s'efforçant d'obtenir des enregistrements continus, permettant de relever la forme et l'allure des courbes de variations thermiques des eaux profondes. A ce but l'A. y joint l'étude des mouvements verticaux des eaux de la mer. Il a construit deux nouveaux appareils : un enregistreur instantané ultra-sensible de température sous-marine et un mesureur de courants verticaux, dont il donne la description, ainsi que d'un thermographe bilame moins couteux et de construction plus simple que le premier des deux appareils susmentionnés. Il donne aussi des renseignements sur l'utilisation et l'amarrage des appareils et illustre, sur la base des résultats obtenus, la répartition des courants profonds.

**Idrac Pierre** - Thermographe enregistreur Idrac de haute précision pour les observations océanographiques sous-marines [*Agitur de thermographo registratore* « Idrac » *maxima præcisione ad observationes oceanographicas submarinas ducendas*]. 8 fig., Bull. Inst. Océanogr., 636, 1-7. Monaco (Princ.) (1933). **a - 1152**

Description d'un thermographe basé sur le principe du thermomètre à résistance électrique où ont été supprimées les difficultés qui faisaient obstacles à l'emploi de ce thermomètre à la mer. L'enregistrement est obtenu photographiquement. Indications sur la mise en route de l'appareil et sur le chargement de l'appareil photographique à la chambre rouge.

**Iselin C. O' D.** - Some Phases of Modern Deep-Sea Oceanography [*De hodierna studia oceanographica pro magnis maris altitudinibus*]. 4 pl., Ann. Rep. Smiths. Inst. for 1932, 251-267. Washington (1933). **a - 1153**

Works of the Woods Hole Institution.

**Iselin Columbus** - The Distribution of Temperature and Salinity in the Western North Atlantic [*De distributione temperaturæ et salsedinis in regionem occidentalem Atlantici Nordici*]. Woods Hole Ocean. Inst., Rep. 1930-32, 42. Woods Hole, Mass. (1933). **a - 1154**

Brief account on work performed during 8 cruises of the «Atlantis» since January 1st 1932. List of operations involved in the reduction of the observations to a suitable form and index of a preliminary report, drafted on hand of the material collected and the diagrams elaborated.

**Jacobsen J. P.** - Temperature and Salinity at the Surface of the North Sea and the English Channel [*Temperatura et salsedo ad superficiem Maris Nordici et Freti Britannici*]. 9 figs., tabl., Cons. Perm. Int. Expl. Mer, Publ. Spéc. 3-20. Copenhague (1934). **a - 1155**

Description of the methods used in preparing the Atlas published in 1933 by the Service Hydrographique of the Bureau of the International Council for the Exploration of the Sea. I. Introduction ; II. General remarks ; III. Detailed description : 1. The temperature means for the North Sea ; 2. The salinity means for the North Sea ; 3. The temperature and salinity means for the English Channel ; 4. The standard deviation of the salinity observations in the North Sea ; 5. Conclusions regarding values of standard deviation of salinity.

**Jacobsen J. P. & Thomsen Helge** - Periodical Variations in Temperature and Salinity in the Straits of Gibraltar [*Variationes periodicæ temperaturæ et salsedinis in Freto Gaditano*]. 8 figs., 4 tabl., James Johnstone Mem. Vol. 275-293. Liverpool (1934). **a - 1156**

On the basis of material collected from the «Dana» in 1921 and 1928, it has been found that in the eastern part of the Straits of Gibraltar at depths from 100 to 200 meters, the isothermal and isohaline levels rise and sink rhythmically with the semidiurnal periods of the tide. The results of observations on the rising and falling of these levels, which are not regular, are reported in the paper.

**Kalle K.** - Meereskundliche chemische Untersuchungen mit Hilfe des Zeissschen Pulfrich-Photometers. III. Mitteilung : Methodische Untersuchung der Phosphatgehaltbestimmung [*Inquisitiones oceanographico-chemicæ photometri* Pulfrich *auxilio. Communicatio III°. Studium methodicum determinationis continentiæ phosphati*]. 17 Tab., 1 Tabellentaf. u. 2 Taf. a. T., Ann. d. Hydrogr., LXII, 2, 65-74, 3, 95-101. Berlin (1934). **a - 1157**

Vf. hat eine methodische Untersuchung der Phosphatgehaltbestimmung mit Hilfe des Zeisschen Pulfrich-Photometers in distilliertem Wasser und künstlichem Meerwasser von 35 ‰ Salzgehalt durchgeführt. Er berichtet über die speziell untersuchte Abhängigkeit der Phosphatreaktion von : *a*) der Wellenlänge des Untersuchungslichtes im Photometer ; *b*) der Zusammensetzung und der Menge des Molybdänschwefelsäure-Reagenses, *d*) der Temperatur, *e*) der Zeit zwischen Reagenzzusatz und Ablesung der Farbtiefe, *f*) Licht und Luft. Vf. konnte teilweise sehr interessante Gesetzmässigkeiten von grossem praktischem Werte zu den obigen Faktoren gestatten und berichtet ausserdem über die Gesichtspunkte der praktischen Ausführung der Phosphatbestimmung.

**Kondyrev N. V.** - Manuel pour les déterminations hydrochimiques sur mer [*Liber de determinationibus hydrochimicis marinis*] (En russe). 10 fig., nombr. tabl., 79 pp., Bur. Hydrogr., Léningrad (1933). **a - 1158**

Préface. Détermination du chlore. Détermination de l'oxygène. id. de l'alcalinité. id. de l'hydrogène sulfuré. id. de la réaction active de l'eau de mer. Titrations colorimétriques. Détermination de la conductivité électrique de l'eau de mer. Tableaux.

**Kupata Tosirô** - On the Temperature of Sea Water and Meteorological Elements Observed at the East Coast of Korea [*De temperatura aquæ marinæ deque elementis meteorologicis observatis apud litora occidentalia regionis* Korea]. Abstr. in Jap. Journ. Astr. & Geoph., XI, 3, 51. Tokyo (1934). **a - 1159**

By means of self-recording instruments the author observed the water temperatures at depths of 1 m., 30 m., and 50 m. as well as air temperature atmospheric pressure, and waterstand at Kosindo, near Seisin on the east coast of Korea. Certain precautions have been taken in order to secure accuracy of records. Part of them is reproduced in the text. The temperatures observed have a remarkable relation to the number and quality of fishes caught in the net lowered at the places of observations.

**Lami Rob.** - Variations du pH de l'eau de mer à l'entrée de la Rance [*De pH aquae marinæ eiusque variationibus ad accessus fluminis* Rance]. Bull. Labor. Saint-Servan, 11, 9-11. Rennes (1933). **a - 1160**

L'A. a tenté, avec une technique plus précise que celle employée en 1929 par E. Fischer, de rechercher si on ne pouvait mettre en évidence à l'entrée de la Rance, des variations analogues à celles observées par A. Labbé au Croisic. Résultats.

**Le Gall J.** - Remarques hydrologiques (Croisière du navire «Estafette») pendant l'année 1931 [*Notitiæ hydrologicæ* (*Navigatio navis* «*Estafette*» *a. 1931*)]. 20 fig., Rapp. Pr.-V. Cons. Expl. Mer, LXXXIV, Rapp. Atlant. 1932, 14-22. Copenhague (1933). **a - 1161**

Compte rendu des observations hydrologiques faites à l'entrée occidentale de la Manche et l'entrée Sud de la Mer d'Irlande qui permettent de tirer une conclusion pratique au sujet de la pêche du maquereau dans la région explorée, ainsi que de donner une explication, se référant à l'inertie des eaux continentales.

**Loewe F.** - Hydrographische Untersuchungen in der Umanaqbucht (Westgrönland) [*Inquisitiones hydrologicæ in Bajam* Umanaq (*in Groënlandia Occidentali*)]. Ann. d. Hydrogr., LXII, 7, 302-303. Berlin (1934). **a - 1162**

Zusammenfassende Wiedergabe der Ergebnisse einiger hydrographischen Untersuchungen, welche vom Vf. im Laufe der «Fanck-Universal-Grönlandexpedition» im Sommer 1932 in der Umanaqbucht (71° N) durchgefürt wurden. Die ausführliche Bearbeitung derselben erscheint in den Veröffentlichungen des Arktischen Instituts in Leningrad.

**Maldura Carlo M.** - I principali caratteri chimici e fisici dell'acqua di mare [*Præcipui caracteres chimici et physici aquæ marinæ*]. Boll. Pesca, Piscicolt., Idrobiol. a. IX, 3, 469-481. Roma (1933). **a - 1163**

Complessità dei fenomeni chimici e fisici che avvengono nelle acque marine e difficoltà d' interpretazione dei fenomeni vitali, anche più semplici, che vi si svolgono. Valori qualitativi e quantitativi delle analisi, in rapporto alla stratificazione ; influenza dei vari fattori sulla vita degli organismi marini. (Vedi anche in : III corso Magistrale Marittimo Peschereccio. Ist. Poligr. dello Stato, Roma 1933).

**Marchand J. M.** - Hydrographic Investigations During 1930 [*Investigationes hydrographicæ a. 1930*]. 8 figs., 2 charts, 7 graphs, Fish. & Mar. Biol. Surv. Surv., Rep. N° 8, Spec. N° Rep. 2, 4-30. Pretoria (1932). **a - 1164**

I. Introduction ; II. Methods and standards of accuracy : A. Temperature ; B. Salinity ; C. Acidity and alcalinity. The object of this report is to bring together a rather scattered accumulation of data and to combine the same into a more homogeneous and intelligible whole.

**Marchand J. M.** - Salinity Results Obtained During 1931 [*Resultatus circa salsedinem a. 1931 obtenti*]. 1 table, Fish. & Mar. Biol. Surv., Rep. Nº 9 Ann. « C », 112-124. Pretoria (1932). **a - 1165**

Salinity results obtained by the method elaborated by Oxner and Knudsen from the analysis of water samples collected during the various survey cruises undertaken during 1931 by the survey vessel R. S. « Africana » on different sections of the South African Coast.

**Marchand J. M.** - Salinity Results Obtained During 1932 [*Resultatus circa salsedinem obtenti a. 1932*]. 1 tabl., Fish. & Mar. Biol. Surv., Rep. Nº 10, 104-109. Pretoria (1933). **a - 1166**

Results of determinations of salinity obtained from analyses of water samples collected during the various survey cruises undertaken during 1932 by the survey vessel R. S. « Africana » on the different sections of the South African Coast. Data obtained on temperature and pH determinations on Stations 236 A, off Durban.

**McDonald W. F. & Showalter A. K.** - Air- and Water-Temperatures in the West Indian Region [*Temperaturæ aëris et aquæ in regione Indiarum Occidentalium*]. 7 figs., 1 table, Nat. Res. Counc. Trans. Amer. Geoph. Union, 14th Ann. Meet. Apr. 27-29, 1933, 197-209. Washington, D. C. (1933). **a - 1167**

Account of some details from a computation of all the meteorological observations available in the files of the United States Weather Bureau, gathered from ships in the Antillean area, south of Bermuda, and eastward longitude 52º.5 during the years 1915 to 1929, inclusive. These computations were made from data tabulated for revision of the Central American Waters Pilot Chart of the United States Hydrographic Office. Discussion of sea- and air-temperature records, containing about 400,000 individual temperature readings.

**Means Thomas H.** - Variation and Control of Salinity in Sacramento-San Joaquin Delta and Upper San Francisco Bay, 1931 [*De variatione et inspectione salsedinis in delta* Sacramento-San Joaquin *et in baja superiore Sancti Francisci*]. 82 pls., Dept. Publ. Work., St. of California, Bull. 27, 437 pp. Sacramento, Ca. (1932-1933).

(—) See abstr. Nat. Res. Counc. Trans. Amer. Geoph. Union, 14 th Ann. Meet. Apr. 27-29, 392-393. Washington, D. C. (1933). **a - 1168**

Results of several years' investigations on the movement of salinity by tides and river-currents in the waters draining into the Pacific Ocean through the Golden Gate. Report of a detailed study to determine the laws under which salt-water moves upstream by tidal influences and a determination of the quantity of water which must flow down stream to counterbalance the effect of tides and maintain any given degree of salinity at any point of the river and bay system. Statement of both field- and laboratory-methods used in the investigation. Investigation of the Salt-Water Barrier.

**Moberg Erik G., Greenberg David M., Revell Roger & Allen Esther C.** - The Buffer Mechanism of Sea Water [*Potentia absorbens aquæ marinæ*]. 6 figs., 9 tabl., Scripps Inst. Ocean. Bull. Univ. Calif., Techn. Ser., 3, 11, 231-278. La Jolla, Ca. (1934). **a - 1169**

Generalized mass-law equations, applicable throughout any pH range, for the quantitative study of the buffer mechanism of sea water in terms of hydrogen ion concentration, titrable base, and total carbon dioxide, have been developed together with simplified equations which may be employed in certain limited pH ranges. Some of the correction factors to be used in the calculation of the dissociation constants of carbonic acid, and of the concentration of the carbon dioxide components of sea water are presented in tabular form.

**Moltschanov L. A.** - Wahrscheinlicher Grund des geringen Salzgehaltes des Balkhaschsees [*De probabili causa reductæ salsedinis in lacu* Balkhasch] (In russ., dtsch. Rés.). 2 Abb., Mém. Inst., Hydr., X, 320-326. Léningrad (1933). **a - 1170**

Beschreibung der Schwankungen, welchen der Salzgehalt des Balkhaschsees in Turkestan unterworfen ist. Erklärung dieser Erscheinung durch eine komplizierte Zusammenwirkung des Grundwassers, des oberirdischen Zuflusses, der atmosphärischen Niederschläge und der Verdunstung. Ergebnisse einiger direkten Beobachtungen über den Wechsel des Salzgehaltes des Balkhaschsees.

**Morton J. M.** - Chemical Investigations of Sea Water in the Halifax Area [*Investigationes chemicæ in aquam regionis* Halifax]. Ann. Rep. Biol. Board Canada, 1932, 30. Ottawa (1933). **a - 1171**

Phosphate investigations carried on at St. Andrews and, owing to the presence of Mr. T. Braarud, of Norway, tied up through an interchange of samples, within the experimental error, with investigations made on the other side of the Atlantic. Fluctuations in the amount of phosphate during the different seasons. Preliminary account of the work done on the amount of dissolved oxygen, and its correlation with the amount of phosphate.

**Needler A. B.** - Hydrography of Malpeque Bay Area ; Winter Conditions [*De hydrographia in baja* Malpeque. *Conditiones hiemales*]. Ann. Rep. Biol. Board Canada, 1932, 31. Ottawa (1933). **a - 1172**

Observations on the relationship between cooling of the water, the salinity and the trend of temperature ; stratification of the water layers after the ice is formed.

**Parr A. E.** - A Geographic-Ecological Analysis of the Seasonal Changes in Temperature Conditions in Shallow Water Along the Atlantic Coast of the United States [*De analysi geographico-oecologica variationum temperaturæ pro anni tempore in aquis haud altis apud litora Atlantica ad Americæ Provincias Foederatas pertinentia*]. Bull. Bingham Ocean. Coll., 4, Art. 3. New York (1933). **a - 1173**

Discussion of the records of surface temperature taken between 1928 and 1930 inclusive at nineteen selected lightships and lighthouses scattered along the coast from Maine to the Dry Tortugas. South of Cape the most important summer fisheries are found in this shallow water (10-fathom limit) which covers, roughly, an area estimated at 10,000 sq. miles. Six well determined thermal areas. Some of the ecological variations result where homothermal and heterothermal areas are adjacent.

**Pettersson Hans** - A Transparency-Meter for Sea-Water [*De apparatu ad perluciditatem aquæ maris mensurandam*]. 4 figs., Gtbgs Kungl. Vetensk.- o. Vitterh.- Samh. Handl. Femte följd. Ser. B. (Medd. Gtbgs Högsk. Oceanogr. Inst. 7), III, 8, 1-17. Göteborg (1934). **a - 1174**

A new instrument for measuring the transparency of sea-water to artificial light is described, examples of results found with it are related and lines for its use at oceanographic and biologic investigations are indicated. (Author).

**Pettersson Hans & Landberg Svante** - Submarine Daylight [*Perluciditas submarina*]. 5 figs., Gtbgs Kungl. Vetensk. o. Vitterh.-Samh. Handl. Femte följd. Ser. B. (Medd. Gtbgs Högsk. Oceanogr. Inst. 6), III, 7, 1-13. Göteborg (1934). **a - 1175**

A simple actionometer for studying submarine daylight by means of the new photo-electric Lange cell is described and instances of its use are given. It is expected to become useful to biologists on account of its simple construction and low cost. (Authors).

**Pettersson Hans & Landberg Svante** - Measurements of Submarine Daylight [*De luce submarina eiusque mensura*]. Nature, CXXXIII, 3351, 102. London (1934). **a - 1176**

On the method of Poole and Atkins for measuring the intensity of daylight penetrating into the sea by means of alkali-metal photo-cells, using a delicate balance method for measuring the very weak photo-currents.

**Pia Julius** - Neue Berechnungen der Löslichkeit des kohlensauren Kalkes [*Calculi novi circa solubilitatem carbonati calcii*]. zahlr. Tab. u. Formeln, Int. Rev. d. ges. Hydrobiol. u. Hydrogr., XXIX, 1/2, 84-112. Leipzig (1933). **a - 1177**

Kritische Betrachtung der von Schloesings, Johnston und Williamson, Tillmans und Heublein, Auerbach, Schäperclaus, Kline, Frear und Johnston ausgeführten Versuche.

**Rakestraw Norris W.** - Chemistry of the Waters of the Gulf of Maine in August, 1932 [*De chemia aquarum Sinus* Maine *mense Augusto 1932*]. 4 figs., 2 tabl., Biol. Bull., LXIV, 2, 149-158. Lancaster, Pa. (1933). **a - 1178**

The hydrographic features of this Gulf-temperature, salinity, aud dominant concentration of its waters are now known. Ocean biologists and scientists have devoted their attention to this area of the Gulf of Maine, particularly favorable for such detailed studies. Descriptions and results are given here.

**Rakestraw Norris W.** - Studies of the Physical Chemistry of Sea Water [*Studia chimico-physica aquæ marinæ*]. Woods Hole Ocean. Inst., Rep. 1930-32, 33. Woods Hole, Mass. (1933). **a - 1179**

Summary of the chemical work carried on at the Woods Hole Oceanographic Institution during the summer of 1931, consisting for the most part of a general chemical survey of the waters of the region, with respect to the following factors: chloride, phosphate, nitrate, nitrite, and oxygen.

**Rakestraw Norris W.** - Studies of the Chemistry of Sea Water [*Studia chimica aquæ marinæ*]. Woods Hole Ocean. Inst., Rep. 1930-32, 42-43. Wodds Hole, Mass. (1933). **a - 1180**

Summary of the results of the following chemical projects: 1. A more comprehensive study of the place and significance of nitrites in the nitrogen cycle in the sea; 2. A preliminary study of the occurrence of arsenic in sea-water; 3. Critical examination of methods for determining copper and iron in sea-water; 4. Substantial beginning of a method for the positive determination of dissolved nitrogen in sea water; 5. Preliminary work on the adaptation of quantitative spectrographic methods to the analysis of sea water; 6. Improvements of one of the methods for determining the « buffer capacity » (alkalinity) of sea water.

**Retowski L. O.** - Eine Beobachtung über den winterlichen Haushalt des Reliktensees Mogilnoje [*Agitur de quadam observatione circa hiemale regimen lacus* Mogilnoje] (Russ. Text., Dtsch. Rés.). 2 Abb., 1 Tab., Trans. Arct. Inst., U. R. S. S., III, 2, 47-49. Leningrad (1933). **a - 1181**

Die Ergebnisse der ersten im Jahre 1929 ausgeführten Apriluntersuchung über die thermischen und Salinitätsverhältnisse werden hier auch an Hand Tabellen und Kurven mitgeteilt. Vergleich mit den im März gemachten Beobachtungen.

**Riel (van) P. M.** - The Snellius Expedition [*De expeditione navis* « Snellius »]. 1 fig. & 2 charts, Journ. Cons. Expl. Mer, VII, 2, 212-217. Copenhague (1932). **a - 1182**

The present communication concludes those of prof. van Everdingen published in vol. V, N° 3 of the « Journal etc. » in which some extracts from the reports of the expedition in the Dutch East Indies of the « Snellius » have been given. On an annexed chart (N° 1) the whole track of the ship is indicated with the various stations where serial observations of wire soundings have been carried out. During 16 months about 33,700 sea miles have been covered, 32,450 echo soundings made and plotted after corrections on large-scale depth charts. Approximatively 2,000 samples of surface-water have been collected and salinity and temperature determinations made. 10,000 and 5,000 samples have been titrated for salinity and oxygen content respectively, 7,000 chemical determinations have been carried out, a great number of coral samples and animals has been collected, and other oceanographic work performed. On a second chart are indicated the three vertical sections made and a figure shows the salinity distribution in three vertical sections, along which the interchange of water with the Pacific Ocean is possible.

**Robinson Rex J. & Wirth Henry E.** - Report on the Free Ammonia, Albuminoid Nitrogen and Organic Nitrogen in the Waters of the Puget Sound Area, during the Summers of 1931 and 1932 [*Relatio de ammoniaca libera, azoto albuminoidi, azoto organico in aquis nomine* Pouget-Sound, *æstate 1931 et 1932*]. Journ. Cons. Expl. Mer, IX, 1, 15-27. Copenhague (1934). **a - 1183**

Determination of the free ammonia, albuminoid nitrogen and organic nitrogen in the waters of the Puget Sound area during the summers of 1931 and 1932 are reported. The average content of free ammonia was found to be less than 0.02 milligram of ammonia nitrogen per liter. The albuminoid nitrogen content averaging about 0.10 milligram per liter in the waters, studied, does not show the regular correlation with organic nitrogen that might be expected. The organic nitrogen content decreases with depth. No regular variation of total nitrogen with locality was found. This quantity increases with depth, but in an irregular manner. (Author).

**Robinson Rex J. & Wirth Henry E.** - Free Ammonia, Albuminoid Nitrogen, and Organic Nitrogen in the Waters of the Pacific Ocean off the Coasts of Washington and Vancouver Island [*De ammoniaca libera, azoto albuminoidi et azoto organico in aquis Oceani Pacifici longe a litoribus urbis* Washington *et insulæ* Vancouver]. 2 figs., 5 tabl., Journ. Cons. Expl. Mer, IX, 2, 187-195. Copenhague (1934). **a - 1184**

1. The quantity and the distribution of ammonia in the Pacific Ocean off the Washington coast corresponds to those found in other oceans; 2. The amount of albuminoid and organic nitrogen is less than that found in the inland waters of this region; 3. Other investigators have reported much larger values for albuminoid nitrogen in the Mediterranean and North Seas; 4. The vertical distributions of albuminoid and organic nitrogen show minima at eight hundred to one thousand meters with greater values at surface and bottom.

**Sawyer W. R.** - Light in Relation to Water [*De luce eiusque correlationibus cum aqua*]. Ann. Rep. Biol. Board Canada, 1932, 35. Ottawa (1933). **a - 1185**

Light penetration into natural waters. Heating of natural pool by solar radiant energy.

**Schott Gerhard** - Die Verteilung des Salzgehaltes im Oberflächenwasser der Ozeane [*De distributione salsedinis in aquam superficialem oceanorum*]. 1 T.-Fig., 1 Taf., James Johnstone Mem. Vol., 235-241. Liverpool (1934). **a - 1186**

Beiworte zu der neuen Ausgabe der in 1928 zuerst erschienen flächentreuen Karte der Salzverteilung im Oberflächenwasser der Ozeane. Die heutige Neuausgabe der Karte ist durch die Veröffentlichung eines neuen Beobachtungsmateriales rechtfertigt.

**Schubert v. O.** - Ergebnisse der ozeanographischen Serienbeobachtungen (Strommessungen und ozeanographische Serienbeobachtungen der 4-Län-

der Unternehmung im Kattegat 10-17. August 1931) [*Resultatus ex observationibus oceanographicis per series ductis*]. 18 Abb., Tab., Veröff. Inst. Meeresk. N. F., A. Geogr.-naturw. Reihe, 25, 61-144. Berlin (1934). **a - 1187**

Einleitung: Die meteorologischen Verhältnisse in der Beobachtungswoche. Die Wasserstandsbeobachtungen und der Luftdruck. Wassertransport und Strommessungen. I. Teil: Der Aufbau der Wassermassen und seine unperiodischen Aenderungen. A) Salzgehalt; B) Temperatur. II. Teil: Die periodischen Schwankungen von Salzgehalt und Temperatur. A) Beobachtungsmaterial und Art der Bearbeitung; B) Ergebnisse der harmonischen Analyse. C) Theoretische Betrachtungen. III. Teil: Der tägliche Gang und die sonstigen periodischen Schwankungen in der Deckschicht. A) Temperatur; B) Salzgehalt.

**Seiwell H. R. & Seiwell Gladys** - Investigation of the Phosphorus Cycle and Associated Factors in the North Atlantic Basin [*Inquisitiones in cyclum phosphori ac factores cum phosphoro consociati in bacino Atlantici nordici*]. Woods Hole Oceanogr. Inst., Rep. 1930-32, 46-48. Woods Hole, Mass. (1933). **a - 1188**

Summary of the observations made during the cruises of « Atlantis » in 1932 between the Bermuda Islands and the North American Coast, between Bermuda and the Nova Scotia coast and between Bermuda and Chesapeake Bay. In general, the observational program has consisted in determination of soluble phosphoric acid, total phosphorus, oxygen and pH at stations and depths wherever practical. Chemical analysis of marine plankton and investigation of the phosphorous cycle in marine sediments have also been carried on.

**Seiwell H. R. & Seiwell G. E.** - Ueber den Gesamtphosphorgehalt des Seewassers im westlichen Nordatlantischen Ozean [*De summa phosphorica in aqua marina in regione occidentali Atlantici Nordici*]. 2 Tab., 1 Karte, 1 Taf., Ann. d. Hydrogr. LXII, 1, 7-13. Berlin (1934). **a - 1189**

Die Beobachtungen, welche diesem vorläufigen Bericht zugrunde liegen, stammen von einer Fahrt der « Atlantis » im Nordwest-Atlantischen Ozean von Februar bis März 1932. Die wiedergegebenen Ergebnisse dürften die ersten ihrer Art sein, die aus dem offenen Ozean für die Oberfläche und das Tiefenwasser veröffentlicht werden. Bedeutung des Phosphats für die Fruchtbarkeit des Seewassers. Beschreibung des Analysenverfahrens, welche die Methode von Robinson und Kemmerer in etwas modifizierter Form darstellt. Die vertikale Verteilung des organisch gebundenen Phosphors.

**Slocum Giles** - Summary of Sea-Surface Temperature Data for 1932 [*Compendium notitiarum circa temperaturam aquarum ad superficiem a. 1932*]. 1 tabl., Monthly Weath. Rev., 61, 4, 115. Washington, D. C. (1933). **a - 1190**

Table showing the main sea-surface temperature for December 1931 and for the 12 months of 1932 in the Caribbean Sea and the Straits of Florida with some illustrative notes.

**Slocum Giles** - Summary of Sea-Surface Temperature Data for 1933 [*Compendium notitiarum circa temperaturam aquarum ad superficiem a. 1933*]. 1 tabl., Monthly Weath. Rev., 62, 1, 30. Washington, D. C. (1934). **a - 1191**

Mean monthly sea-surface temperatures for each month of 1933 in the Caribbean Sea and the Straits of Florida. For comparison, the 13-year means (1920 to 1932 inclusive) have been included in the reproduced table as « normal ».

**Somma Alberto** - Ancora sullo studio della trasparenza delle acque marine [*Studium perluciditatis aquæ submarinæ*]. 2 tab., Bull Inst., Océanogr., 635, 1-8. Monaco (Princ.) (1933). **a - 1192**

Nella presente pubblicazione l'A., facendo seguito ai suoi precedenti lavori (v.: A. Somma, « La transparence des eaux marines de Naples étudiée avec une source lumineuse ». « Bull. » n° 553 e « Su talune osservazioni di trasparenza delle acque marine nel golfo di Salerno », « Bull. » n° 608), rileva le differenze che si riscontrano allorchè si pongono a raffronto i dati raccolti nei due golfi di Salerno e di Napoli durante alcune osservazioni di trasparenza con l'utilizzazione di una sorgente luminosa convenientemente disposta. Discute quindi le ragioni e cause di dette differenze.

**Strachov N.** - K voprosu o pricinach i vremeni serovodorodnogo zarajeniia Cernogo mora [*Quæstio de die et causa occupationis Ponticæ per Hydrogenum sulphuratum*]. Zemlevedenie, XXXIV, Moskva (1932). **a - 1193**

**Strand Embrik & Ozolinš** - Hydrographische Untersuchungen der Hydrobiologischen Station im Rigaer Meerbusen und im Baltischen Meere. IV. (Lett. u. Dtsch. Text.). [*Inquisitiones hydrographicæ Stationis hydrobiologicæ in Sinum Cylipenum et in mare Balticum*]. 1 Tab., Fol. Zool. et Hydrobiol., V, 1, 38-40. Riga (1933). **a - 1194**

Die Ergebnisse der in der zweiten Hälfte des Jahres 1932 ausgeführten Untersuchungen über die Oberflächentemperatur und den Salzgehalt, die in der vorigen Abhandlung (Fol. Zool. Hydrobiol. IV, 2, 271-276, 1932) nicht mitgenommen werden konnten, werden hier in einer Tabelle mit Angabe von Datum, Uhrzeit.-St., Breite, Länge, t°, S ‰ wiedergegeben.

**Sverdrup H. U.** - Vereinfachtes Verfahren zur Berechnung der Druck- und Massenverteilung im Meere [*Methodus simplicior ad calculandas pressionis distributionem et maris densitatem*]. Tab., Geofys. Publ., X, 1, 1-9. Oslo (1933). **a - 1195**

Unter Hinweisung auf die von Hesselberg und dem Vf. aufgestellten Tabellen (Siehe Berg. Mus. Aarb. 1914-15, N° 14) sucht der Vf. hier zu zeigen, dass die ursprunglich von Bjerknes und Sandström (Statik der Atmosphäre und Hydrosphäre, Braunschweig 1912) benutzten Anomalien des spezifischen Volumens und der dynamischen Tiefe in einfacher Weise ermittelt werden können, wenn $\sigma t$ bekannt ist. Mit der Hilfe der hier mitgeteilten Tabellen wird eine viel grössere Genauigkeit ermöglicht.

**Sverdrup H. U.** - Wie entsteht die Antarktische Konvergenz? [*Quomodo formatur cumvergentia antarctica?*]. Ann. d. Hydrogr., LXII, 8, 315-317. Berlin (1934). **a - 1196**

Besprechung der Ursachen der Entstehung der Antarktischen Konvergenz um den ganzen Antarktischen Kontinent, um welchen sie eine scharfe Grenzlinie zwischen dem schweren antarktischen und dem leichteren subantarktischen Oberflächenwasser bildet.

**Terechov I.** - Echelle de marée flottante [*Schala æstus fluctuantis*]. Zap. po Gidrogr., 1, 15-18. Leningrad (1933). **a - 1197**

**Thomas Bertram D. & Thomson Thomas G. & Utterback Clinton L.** - The Electrical Conductivity of Sea Water [*De conductivitate electrica aquæ marinæ*]. Journ. Cons. Expl. Mer, IX, 1, 28-35. Copenhague (1934). **a - 1198**

The specific conductance of sea water has been measured over the entire range of concentrations found in nature. The measurements have been made at five-degree intervals from 0° to 25° inclusive. The data obtained by experiment have been analyzed by the method of least squares and interpolation formulas for the calculation of intermediate values have been derived for all of the temperatures at which the measurements were made. Tables have been calculated giving the specific conductance for every integral value of the chlorinity between 1 ‰ and 22 ‰ inclusive at each of the temperatures. (Author).

**Thompson T. G. & Houlton H. G.** - Determination of Silicon in Sea Water [*De silicio in aqua marina determinando*]. Industr. & Eng. Chem. Analyt. Ed., V, 417. Easton, Pa. (1933). **a - 1199**

**Thompson T. G. & Taylor H. J.** - Determination and Occurrence of Fluorides in Sea Water [*De fluoruris in aqua marina determinandis et reperiendis*]. Industr. & Engin. Chem. Analyt. Ed., V, 87. Easton, Pa. (1933). **a - 1200**

**Thompson G. T., Thomas B. D. & Barnes Cl. A.** - Distribution of Dissolved Oxygen in the North Pacific Ocean [*De distributione oxygeni soluti per Oceanum Pacificum Nordicum*]. 7 pls., 10 tabl. on pl., James Johnstone Mem. Vol., 203-234. Liverpool (1934). **a - 1201**

The present paper attempts to review the status of the problem of the distribution of dissolved oxygen in the waters of the oceans and to supplement the existing knowledge, particularly of the North Pacific Ocean. It contains a comprehensive treatment of oceanic circulation, which is necessary for a complete explanation of the well defined zones of minimum oxygen which are known to exist at various depths. The data reported in the accompanying tables, together with the results obtained by the « Dana », the « Carnegie », and the « Catalyst » show that the intermediate zone of a minimum oxygen is a characteristic property of a relatively large portion of the north and northeast Pacific. A summary of the causes which may effect changes in the quantity of dissolved oxygen are given, together with a brief description of the physical conditions of the northern Pacific, which produce situations that are entirely different from the conditions found in the North Atlantic. The relation of the dissolved oxygen to other constituents of sea water is also discussed.

**Thomsen Helge** - The Distribution of Phosphate and Nitrate in the North Sea in May 1932 [*De phosphatis et nitratis maris Nordici, mense Majo 1932. Quæstio de distributione*]. 8 figs., 1 tabl., Rapp. & Pr.-Verb., Cons. Expl., Mer, LXXXV Append. 42-46. Copenhague (1933). **a - 1202**

From April 29 to June 10 the R. S. « Dana » carried out fishery investigations in the North Sea under the leadership of Professor Johs. Schmidt. In addition to the fishery investigations, hydrographic investigations were made by the writer at 47 stations. These investigations consisted of determination of temperature, salinity, and phosphate and nitratecontent at various depths from the surface to the bottom.

**Tomiyama T.** - On the Stick Antimony Electrode for the Determination of pH. [*De electrodo antimonii ad pH determinandum*]. 7 fig., 4 tabl., Journ. Imp. Fish. Inst., XXIX, 1, 29-46. Tokyo (1933). **a - 1203**

The author studies the factors governing the potential of stick antinomy electrode such as shaking the electrode, temperature, time of immersion, presence of NaCl and their bearing on pH-E. M. F. curve. From the data obtained some explanations and criticism are also given of the divergency of results obtained by different workers.

**Tschirichin G. D.** - Hydrologische Uebersicht des südöstlichen Teiles des Laptev-Meeres [*Generalia de hydrologia regionis sud-orientalis Maris* Laptev] (Russ. Text., dtsch. Rés.). 4 fig., Expl., des mers d'U. S. S. R., 15, 13-31. Leningrad (1932). **a - 1204**

Flacher Bezirk, Tiefen bis nur 24 m. Bodenarten, Wasserdurchsichtigkeit, Farbe, Salzgehalt, Eis-und Stromverhältnisse.

**Utterback C. L.** - Light Penetration in the Waters of Southern Alaska [*De lucis penetratione in aquas regionis Alaskianæ meridionalis*]. 2 fig., 1 tabl., Journ. Opt. Soc. Amer. (Univ. Wash. Publ. Oceanogr. Suppl., ser. N° 14), XXIII, 10, 1-5. Washington (1933). **a - 1205**

The data and results presented constitute a report of a continuation of the work of the preceding paper. The interesting new feature of the waters of Southern Alaska is definite evidence of layering. In addition to photosynthetic action it is probable that this is caused, in part at least, by the discharge of rivers and by glacial effects. (Author).

**Utterback C. L.** - Variations in Visible Solar Light during Submarine Measurements [*De variationibus lucis solaris perdurantibus mensuris submarinis*]. Science, LXXVII, 118-119: London (1933). **a - 1206**

**Utterback C. L. & Jorgensen, Wilhelm** - Absorption of Daylight in the North Pacific Ocean [*De lucis diurnæ absorptione in Oceano Pacifico Nordico*] 6 fig., 2 tabl., Journ. Cons. Expl. Mer, IX, 2, 197-209. Copenhague (1934). **a - 1207**

The total vertical absorption coefficients, as here used, are found to be a good index of the transparency of the water. While sources of errors in the measurements are appreciable, the results are typical for the waters studied. There is a definite and marked decrease in the transparency of the water proceeding from the open ocean to inshore and lake waters. This is true for all wave-lengths studied. In the open ocean the red light is mostly absorbed in the first few meters leaving a deficiency of the red in the deeper waters. The region of greatest transparency is in general in the blue in ocean waters. This is in contrast to the inshore waters, where the greatest transparency is in the green. (Author).

**Utterback C. L., Thomas G. & Thomas Bertram D.** - Refractivity-Chlorinity-Temperature Relationships of Ocean Waters [*Correlationes inter refractionem, tenorem chlori et temperaturam aquarum oceanicarum*]. 2 tabl., Journ. Cons. Int. Expl. Mer, IX, 1, 35-38. Copenhague (1934). **a - 1208**

The purpose of this investigation was to study the relations between the chlorinity of ocean water and the refractive index ($d = 5893$) at various temperatures. Samples of water used. Experimental work shortly described. Results. Tables.

**Utterback C. L. & Watson Boyle J.** - Light Penetration in the Waters of the San Juan Archipelago [*De lucis penetratione in aquas archipelagi* San Juan]. 7 fig., Journ. Opt. Soc. Amer. (Univ. Wash. Publ. Oceanogr. Suppl. ser. N° 13), XXIII, 10, 1-10. Washington (1933). **a - 1209**

The object of this investigation was to determine the penetration of certain spectral bands of visible solar radiation. Apparatus and methods ; advantages and modification of the method. Necessity of obtaining a greater spectral distribution in the observations to be continued.

**Van Riel P. M.** - Surface Temperature in the Northwestern Part of the Atlantic Ocean [*De temperatura ad superficiem in regione nord-occidentali Oceani Atlantici*]. Ocean. Kon. Meteorol. Inst., 102. 's-Gravenhage (1933). **a - 1210**

**Vercelli F.** - La luce nel mare [*De luce in mari*]. Scientia, LV, 4, 262-269. Bologna (1934). **a - 1211**

Sono riassunti i concetti, i metodi ed alcuni risultati relativi al problema della propagazione e dell'estinzione delle radiazioni nelle acque dei mari, con particolare riferimento alle determinazioni eseguite da W. Beebe, mediante immersione in batisfera, e alle ricerche recentemente promosse nei mari italiani.

**Wiese W. J.** - Zur Kenntnis der hydrologischen Verhältnisse im Winter im Petschora Meer [*Res collectæ ad intelligendum regimen hiemale Maris* Petschora *nomine*] (In Russ., dtsch. Rés.). 1 Karte, 2 Tab., Arctica, 1, 99-114. Leningrad (1933). **a - 1212**

Bericht über die während der Fahrt des Eisbrechers « Krassin » im Petschora Meer ausgeführten hydrologischen Stationen und Beobachtungen über das Oberflächenwasser. Das vorhandene Material gestattet es, über die winterlichen Verhältnisse im Petschora Meere verschiedene Schlüsse zu ziehen mit besonderer Berücksichtigung der Schichtung der Wassermassen, des Salzgehaltes, der Wassertemperatur und der Alkalinität des Wassers in Bezug auf die Eisbildung.

**Wiese W. J.** - Beobachtungen über das Oberflächenwasser [*Observationes aquarum superficialium*] (In russ.). 1 Tab., Trans. Arct. Inst., VI, 13-23. Leningrad (1933). **a - 1213**

Oberflächenwasserbeobachtungen ausgeführt an Bord der Eisbrecher « Malyghin » und « Sibirjakov » in 1931.

**Wiese W. J.** - Temperatur und Salzgehalt des Meerwassers [*De temperatura et salsedine aquæ marinæ*] (In russ., dtsch. Rés.). 11 Diagr. u. Kart., mehr. Tab., Trans. Arct. Inst., X, 39-87. Leningrad (1933). **a - 1214**

1. Hydrologische Verhältnisse zwischen der Dickson-Insel und der Sverdrup-Insel; 2. Hydrologischer Schnitt im Laptew-Meer; 3. Stationen in der Nähe von Sewernaja Zemlja; 4. Beobachtungen über das Oberflächenwasser.

**Wiese W. & Laktionow A.** - Tiefseebeobachtungen [*Observationes hydrologicæ maris aquarum peraltarum*] (In Russ., dtsch. Rés.). 40 Abb. u. mehr. Tab., Sc. Res. Arct. Exped. on the « Sedov » in 1930. Hydrol. & Meteorol., Trans. Arct. Inst., I, 43-108. Leningrad (1933). **a - 1215**

Im Sommer 1930 besuchte der Eisbrecher « Sedow » den nördlichen noch gänzlich unerforschten Teil des Karischen Meeres, in welchem Tiefseebeobachtungen auf 25 Stationen ausgeführt wurden. Unter dem Namen Karischen Meere versteht Vf. die Gewässer, deren Grenzen folgendermassen bestimmt worden sind: im Süden- der Kontinent; im Nordwesten- die Linie, welche die Nordspitze von Nowaja Zemlja mit dem äussersten südöstlichen Teil von Franz-Joseph Land verbindet; im Norden- die Kontinentalstufe und im Osten- Sewernaja Zemlja. In der vorliegenden Arbeit sind die Ergebnisse der Beobachtungen über Temperatur, Salzgehalt, Alkalinität, Wasserstoffionenkonzentration und den Gehalt in Sauerstoff, Phosphaten, Sulfaten, Nitraten, Calcium und Magnesium der Gewässer des Meeres zusammenfassend wiedergegeben.

**Wirth Henry E. & Robinson Rex J.** - Photometric Investigation of Nessler Reaction and Witting Method for Determination of Ammonia in Sea Water [*Investigationes photometricæ in reactionem secundum* Nessler *ac methodus* Witting *ad ammoniacam in aqua marina determinandam*]. 3 figs., Ind. & Eng. Chem. Anal. Ed. (Univ. Wash. Publ. Oceanogr. Suppl. ser. N. 12), V, Sept. 15, 293. Easton, Pa. (1933). **a - 1216**

Examination of Nessler reagents according to four methods: Ringer and Klingen, Raben, Standard Methods of Water analysis, and Treadwell. Results compared with these obtained in sea water with the Witting reagents. Defense of the Witting method.

**Woerner H.** - Die Brauchbarkeit der funktelegraphischen Seeobsmeldungen zur Bestimmung von Wassertemperaturen [*De utendis notitiis marconigraphicis a navibus velicis transmissis ad aquæ temperaturam determinandam*]. 1 Abb., 1 Tab., 1 Taf. a. T., Ann. d. Hydrogr. LXII, 3, 103-109. Berlin (1934). **a - 1217**

Möglichkeit nach der allgemeinen Einführung der funktelegraphischen Uebermittlung von Wettermeldungen der Ozeandampfer eine grosse Anzahl Temperaturmessungen aus allen Teilen des Nordatlantik zu haben. Zwei verschiedene Methoden der Auswertigung des vorhandenen Materials. Untersuchung über die Wassertemperatur des Nord-Atlantik während der Monate: August, Oktober und November 1932 und Februar 1933. Möglichkeit die Temperaturanomalien mit Hilfe der beschriebenen Untersuchungsmethode festzustellen.

**Wüst G.** - Ueber die Bedeutung von Bodentemperaturmessungen für die ozeanographische, morphologische, chemische und geologische Erforschung der Tiefsee [*De mensuris temperaturæ fundi marini earumque momento pro studio oceanographico, morphologico, chimico, geologico aquarum abyssalium*]. 2 Taf., 1 Tab., James Johnstone, Mem. Vol., 242-256. Liverpool (1934). **a - 1218**

Auf Grund der Ergebnisse, welche dank der Mitarbeit der Vermessungsschiffe und Kabeldampfer erzielt werden konnten, zeigt Vf., dass der Wert und die Bedeutung von Bodentemperaturmessungen viel höher für die Meeresforschung zu veranschlagen ist, als man bisher im allgemeinen annahm. In der vorliegenden Arbeit bespricht er (I) den Stand der Forschung in der Atlantischen Tiefsee; (II) die Bedeutung der potentiellen Bodentemperaturen für die ozeanographische und morphologische Erforschung der atlantischen Tiefsee und (III) die Beziehungen zwischen dem antarktischen Bodenstrom und dem Kalkgehalt der Tiefsee-Sedimente des Bodenwassers in den drei Ozeanen.

**Wüst Georg** - Salzgehalt und Wasserbewegung im Suezkanal [*De continentia salina et motibus aquæ canalis* Suez]. 3 Abb., Naturwiss., XXII, 26, 447-450. Berlin (1934). **a - 1219**

Der Suezkanal nimmt in hydrographischer Hinsicht unter den Meeresstrassen eine Sonderstellung ein. Da Strommessungen nicht vorliegen, sind hier, unter Berücksichtigung der jahreszeitlichen Verschiebungen, des Salzgehaltes im Inneren des Kanals, der meteorologischen Faktoren, des Wasserstandes und der Fernwirkungen der Obenflächenzirkulation des Indischen Ozeans drei jährich verschiedene Strombilder indirekt abgeleitet worden.

**Wüst Georg** - Das Bodenwasser und die Gliederung des Atlantischen Ozeans [*De aqua in fundo marino Oceani Atlantici*]. 16 Abb., 8 Kart. u. Diagr., Wiss. Ergebn. dtsch. Atlant. Exp. « Meteor », 1925-1927, VI, I, Lief. 1, Berlin (1934).

(—) (S.: Gerhard Castens: « Georg Wüst: Das Bodenwasser und die Gliederung des Atlantischen Ozeans », Ann. Hydr., LXII, 5, 185-191. 4 Tab.). **a - 1220**

Geschichte der Erforschung des Bodenwassers. Das Quellenmaterial. Die horizontale Verteilung der Bodentemperatur und des Bodensalzgehaltes. Der vertikale Aufbau des Bodenwassers. Die Gliederung des Tiefseebodens. Listen des Quellenmaterials (Zusammenstellung der Messungen in mehr als 4000 m. Tiefe): *a)* Bodentemperatur *in situ* und potentiell; *b)* Bodensalzgehalte und potentielle Dichten; *c)* Quellennachweis zu vier meridionalen Längsschnitten des Raumes 3000 m Boden.

**Zo Bel C. E.** - Photochemical Nitrification in Sea Water [*De nitrificatione photochimica in aqua marina*]. Science, LXXVIII, 1984, 27-28. New York (1933). **a - 1221**

Observations in whose view it appears that, at least, part of the nitrification which occurs in the sea is photochemically activated.

**Zorell Franz** - Ein neuer Atlas für Temperatur und Salzgehalt im Oberflächenwasser der Nordsee [*Atlas novus temperaturæ et salsedinis aquarum ad*

*superficiem Maris Nordici*]. 1 Taf. a. T., Ann. d. Hydrogr., LXII, 3, 102-103. Berlin (1934). **a - 1222**

Einige Betrachtungen über das Material, seine Bearbeitung und Zusammenfassung, in « Atlas de la température et salinité moyennes de l'eau de surface de la Mer du Nord et de La Manche », veröffentlicht vom Bureau du Conseil Permanent International pour l'exploration de la Mer, Service Hydrographique. 1933.

**Conseil Permanent International pour l'Exploration de la Mer** - Atlas de Température et Salinité de l'Eau de Surface de la Mer du Nord et de la Manche [*Atlas novus temperaturæ et salsedinis aquarum ad superficiem Maris Nordici et Freti Britannici*]. 26 cartes, tabl., 32 pp., Andr. Fred. Høst et Fils. Copenhague (1933). **a - 1223**

Cartes des salinités moyennes et des températures moyennes dans les mers reportées dans le titre, basées sur les observations dont on a donné nouvelle dans les Bulletins Hydrographiques.

**Conseil Permanent International pour l'Exploration de la Mer** - Hydrologie: République Française [*De Hydrologia. Respublica Gallica*]. 1 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIV, Rapp. Atlant. 1932, 6-8. Copenhague (1933). **a - 1224**

Croisières et missions organisées ou utilisées pour des recherches océanographiques par la Marine Nationale Française et l'Office des Pêches Maritimes. Tableau des observations effectuées au cours de la croisière du Garde-Pêche « Estafette ».

**Conseil Permanent International pour l'Exploration de la Mer** - Hydrologie: Royaume de Grande Bretagne [*De Hydrologia*: *Regnum Britannicum*]. 1 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIV, Rapp. Atlant., 1932, 9-10. Copenhague (1933). **a - 1225**

Tableau des observations effectuées au cours des sorties régulières du navire H. M. S. «Salpa» en Janvier-Novembre 1931.

**Conseil Permanent International pour l'Exploration de la Mer** - Hydrologie: Etat Libre d'Irlande [*De Hydrologia*: *Status autonomus Hiberniæ*]. 1 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIV, Rapp. Atlant. 1932, 11-13. Copenhague (1933). **a - 1226**

Tableau contenant les résultats des observations effectuées au cours des croisières faites en 1931 par le navire irlandais « Muirichu » en février, mai, août et décembre sous la direction de Mr. G. P. Farran.

**Deutsche Seewarte** - Meereskundliche Beobachtungen auf deutschen Feuerschiffen der Nord- und Ostsee. Jahr 1932 [*Observationes Oceanographicæ ex pharis Germanicis Maris Nordici et Maris Baltici. a. 1932*]. Deutsche Seewarte, Hamburg (1934). **a - 1227**

**Hydrographic Department** - The Charts for the Bulletin of the... [*Chartæ pro Ephemeride ad Dipartimentum Hydrographicum pertinente*]. 134 pl., Bull. Hydrogr., Dpt. Imp. Japan Navy, VI, 134. Tokyo (1933). **a - 1228**

In the present volume the following data are recollected on 134 plates: Distribution of observation stations, the vertical distribution of temperature and salinity, the horizontal distribution of temperature and salinity for 0 m., 10 m.,..... 1000 m., the currents for 10 m., 25 m.,...... 300 m., transparency and colour of sea water. Its contents is as follows. Part I: The seas southward of Japan. Summer. Part II: The sea southward of Japan. Winter Part III: The seas eastward of Hanosyû. Summer. The seas southward of Japan. November. Part IV: The sea southward of Japan and tropical region in the western part of the North Pacific.

**Japanese Hydrographic Department** - The Report of Oceanic Survey in Western Part of the North Pacific Ocean Carried out by H. I. J. M. S. « Mansyû » from April 1925 to March 1928 [*Relatio circa specimina aquæ marinæ collecta a navi imperiali Japonia* « Mansyû » *ex Oceano Pacifico Nordico a mense Aprili 1925 ad mensem Martium 1928*] (In Jap.), 135 pls., Bull. Hydrogr. Dpt., 6, 1-496. Tokyo (1933). **a - 1229**

This report consists of the following three parts: 1. The results of observations of temperature and salinity, tables pp. 26-158; 2. The results of current observations, pp. 159-428; 3. The results of soundings pp. 429-458. As appendices, two papers are added: 1. The current in Tung-Hai », by S. Ogura; 2. « Some Oceanographical Investigations of the results of Oceanic Survey », by R. Sigematu. In a separate volume, stations of observations, distributions of temperature and salinity currents, etc. are dealt with. (See: Jap. Journ. Astr. & Geoph., XI, 3, abstr. 145, 44. Tokyo (1934).

**Service Hydrographique. Conseil Permanent International pour l'Exploration de la Mer** - Atlas de la température et salinité moyennes de l'eau de surface de la Mer du Nord et de la Manche [*Atlas temperaturæ et salsedinis mediæ in aqua superficiali Freti Britannici et Maris Nordici*]. 26 cartes, tabl., 3 pp. Service Hydrogr., Bur. Cons. Perm. Int. Expl. Mer. Copenhague (1933). **a - 1230**

Représentation et élaboration définitives de tout le matériel d'observation réuni depuis 1902 jusqu'à 1928 dans la Mer du Nord et La Manche sur la valeur moyenne de t et de S, sous forme de cartes mensuelles. Dans la préface sont illustrés les modes de la collection du matériel et sa portée. Les méthodes qui ont été suivies dans l'élaboration du matériel réuni seront décrites dans une publication ultérieure.

**An.** - Radio contenido en los sedimentos del fondo del océano [*De tenore radii in sedimentis fundi oceanici*]. Bol. Soc. Geogr. Nac., LXXIII, 12, 817-819. Madrid (1933). **a - 1231**

Résumé et interprétation des résultats de 68 analyses des sédiments du fond océanique dans le but de déterminer leur teneur en radium exécutées par le chimicien et naturaliste américain C. S. Piggot.

**An.** - New Industry to Recover Bromine from the Sea [*Industria nova bromi ex mari recuperati*]. Ind. & Eng. Chem. News Ed., XI, 244. (1933). **a - 1232**

Some information on the new manufacturing plants at Kure Beach, N. C., and the methods to be adopted for the treatment of sea water.

**An.** - The Temperatures and Densities of the Sea-Water Along the Japanese Coasts (May-Aug., 1933) [*De temperatura et densitate aquæ marinæ præter litora Japonia*] (In Jap.). tabl., Journ. Oceanogr., VI, 1, 113-134. Kobe (Japan) (1934). **a - 1233**

**An.** - Meteorologische und hydrologische Beobachtungen ausgeführt an Bord des Motorschiffes « Belukha » im Jahre 1930 [*Observationes meteorologicæ et hydrologicæ in navicula motore prædita* « Belukha » *a. 1930*]. 1 Tab., Sc. Res. Arct. Exped. on the « Sedov » in 1930. Hydrol. & Meteorol. Trans. Arct. Inst., I, 151-173. Leningrad (1933). **a - 1234**

Tagebuch der während der Reise im Karischen Meer von Archangelsk zum Delta des Stromes Lena ausgeführten meteorologischen und hydrologischen Beobachtungen.

## Energia marium - Penetratio energiæ solis radiantis.

**Fjeldstad Ekman Jonas** - Wärmeleitung im Meere [*De conductivitate thermica in mare*]. 3 Abb., Geofys. Publ., X, 7, 1-20. Oslo (1933). **a - 1235**

Unter Hinweisung auf seine zusammen mit Prof. Helland-Hansen ausgeführten Forschungen, besonders in Bezug auf die Temperaturschwankung im Biscaya-Gebiet, gibt der Vf. einige erläuternde Bemerkungen über die Wärmezufuhr und Wärmeleitungsfähigkeit des Meeres, die Temperaturverteilung, die Strömungen, den Austausch von Temperatur und Salzgehalt usw. und behandelt dann an Hand Formeln und Gleichungen das Wärmeleitungsproblem, die numerische Berechnung der Lösung und die Wärmeleitung mit veränderlichem Wärmeleitungskoeffizienten.

**Kitagawa Kingoro** - Sur le trajet d'un rayon sonore dans une couche peu profonde d'eau de mer [*De radio quodam sonoro per stratum marinum haud altum transeunte. Quæstio de eius traiectu*]. Mem. Coll. Sc., A, 16, 287-295. Kyoto (1933). **a - 1236**

Etudiant au point de vue des variations de la température les lois de croissance linéaire de la compressibilité et de la densité des eaux de mer suivant leur profondeur dans la mer, on en déduit une formule sur la vitesse de propagation des ondes sonores comme fonction de la profondeur. En conséquence, on arrive à une équation exprimant le trajet du rayon sonore dans la mer, dont la forme est tout à fait semblable à celle que l'on a déjà récemment trouvée. (Auteur).

**Kolhörster Werner** - Cosmic Rays under 600 Metres of Water [*De radiis cosmicis in maris profunditatem m. 600*]. Nature, CXXXIII, 3359, 419. London (1934). **a - 1237**

On new observations made with two sets of double counter coincidence apparatuses operating simultaneously. Bibliography.

**Richard Jules** - Sur l'utilisation des mouvements de la mer par l'ondo-pompe de F. Cattaneo de Voltri [*De utendis motibus maris per apparatum instar siphonis e systhemate* F. Cattaneo de Voltri]. 8 fig., Bull. Inst. Océanogr., 625, 1-20. Monaco (1933). **a - 1238**

Description de l'ondo-pompe de F. Cattaneo modifiée, installée à Monaco qui serait un excellent appareil simple et robuste actionné par les vagues et qui pourrait rendre de grands services.

**Stumpf Erwin** - Ozeanographie zur Ausnützung des Wärmegefälles im Meere [*De oceanographicis studiis quibus utendum est in lapsu temperaturæ maris determinando*]. 2 Abb., Karte, Diagr., Mitt. Geogr. Ges., LXXV, 1/3, 77-84. Wien (1932). **a - 1239**

**Sverdrup H. U.** - Arbeider i luft-og havforskning [*Studia meteorologica et oceanographica*] (Rés. angl.). 20 pp., Chr. Michelsen Inst. f. Vidensk. o. Åndsfrihet., Beretn. II, 5. Bergen (1932). **a - 1240**

Recherches faites spécialement sur le problème du transport de la chaleur. Explication du contre-courant équatorial dans le Pacifique.

**Vercelli F.** - Sulla propagazione delle radiazioni solari attraverso l'acqua [*De propagatione per aquam radiationum solis*]. James Johnstone Mem. Vol., 340-348. Liverpool (1934). **a - 1241**

Nel presente lavoro l'autore riassume i concetti della teoria dell'estinzione delle radiazioni per assorbimento e diffusione in un mezzo omogeneo; egli estende questa teoria alla propagazione delle radiazioni nell'acqua, deducendo le formule rappresentative del fenomeno e precisando quali siano i dati d'osservazione che debbono essere determinati per la completa conoscenza dei caratteri ottici del mezzo considerato. Quindi illustra anche il metodo di osservazione che deriva dalla teoria summenzionata.

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**An.** - Utilisation de l'énergie de la mer. Utilization of the Energy of the Sea [*De utilitate percipienda e maris energia*] (En franç. & angl.). Bull. Hydrogr. Int., 2, 40. Monaco (1933). **a - 1242**

Courte annotation (sur l'utilisation de l'énergie des mouvements de la mer au moyen de l'ondo-pompe Cattaneo) qui renvoie le lecteur désireux d'obtenir des renseignements plus détaillés à la description de l'appareil donnée par le Dr. Jules Richard dans les Comptes Rendues de l'Académie des Sciences, nº 25, Paris, Déc. 1932.

# MARIS DYNAMICA.

## Circulatio oceanica - Currentiae.

**Barlow E. W.** - Currents of the Arabian Sea and Bay of Bengal. A Further Investigation into their Seasonal Variations [*De currentia maris Arabici et Bajæ Bengalensis. Investigationes ulteriores in variationes pro anni tempore*]. 1 Tabl., Mar. Obs., XI, 113, 19-22. London (1934). **a - 1243**

**Barlow E. W.** - Currents of the Red Sea and the Part of the Indian Ocean north of Australia. I, II & III [*De currentiis Maris Rubri et regionis oceanicæ ad Australiam nordicam pertinentis*]. 2 figs., Mar. Obs., XI, 114, 115 & 116, 67-69, 110 & 150-154. London (1934). **a - 1244**

Meteorological conditions which affect the currents, with summary of current information.

**Bisschop (de) Eric** - Pacifique. Rapport nº 4 et Rapport nº 5 [*De Oceano Pacifico. Relationes Nº 4 et Nº 5*]. 2 cartes, Géogr., Terre-Air-Mer, LXII, 3/4, 182-189. Paris (1934). **a - 1245**

Rapp. n. 4: Recherche de l'Ile Saxegaard. Etude des courants rencontrés. Carte-schéma des courants moyens rencontrés par le capitaine de Bisschop au cours de l'expédition du « Fou-Po II » entre les méridiens 137º et 139º30 et au nord du parallèle 2º00 nord. Rapp. nº 5: Observations générales sur les « Vigies », dangers imaginaires pour la plupart, autrefois signalés, avec référence spéciale au phénomène de rencontre de courants opposés.

**Chahnazarov D. A.** - Note sur la détermination du sens de circulation des eaux d'une nappe océanique [*De circulatione aquarum oceanicarum determinanda*]. 3 fig., Bull. Inst. Océanogr., 614, 1-16. Monaco (1933). **a - 1246**

I. L'origine et les variations de la composition de l'eau océanique; II. Etude physique de l'eau de mer; III. Détermination du sens de la circulation des eaux dans une nappe aquifère. Méthode graphique, macro-circulation et micro et brady-mouvement des eaux salines ; IV. Essai d'une détermination du sens de la circulation des eaux océaniques.

**De Buen Rafael** - Algunas observaciones sobre corrientes [*Observationes quædam circa currentias*]. 2 fig., Año III, 4, 179-182. Madrid (1932). **a - 1247**

Corto articulo sobre la importancia del relieve submarino en las caracteristicas de las corrientes profundas y del origen de las mal denominadas corrientes frias costeras.

**Defant A.** - Ergebnisse der Strom- und Wasserstandmessungen im südlichen Kattegat (Strommessungen und ozeanographische Serienbeobachtungen der 4-Länder-Unternehmung im Kattegat 10-17. August 1931) [*Resultatus ex mensuris currentiarum et aquæ livelli in* Kattegat *meridion.*]. 24 Abb., Tab., 1 Taf. a. T., Veröff. Inst. Meeresk. N. F., A. Geogr.-naturw. Reihe., 25, 1-60. Berlin (1934). **a - 1248**

Vorwort. Die Kursschwankungen des Schiffes « Hunte ». Strommessungen auf der « Hunte ». Strommessungen der Schiffe « Poseidon », Japetus Streenstrup » « Nautilus » und « Skagerrak ». Strommessungen im Sund und Belt. Die Gezeitenstromverhältnisse auf den 5 Stationen im südlichen Kattegat. Die Analyse der Wasserstandsschwankungen während der Beobachtungsperiode. Die $M_2$ — Welle im Kattegat. Die theoretischen Gezeiten des Kattegats.

**Defant A. & Schubert (von) O.** - Strommessungen und ozeanographische Serienbeobachtungen der 4- Länderunternehmung im Kattegat, 1931 [*Mensuræ currentiarum observationesque oceanographicæ systhematice peractæ in regionibus quattuor ad* Kattegat *pertinentibus*]. 144 pp., Mittler & Sohn. Berlin (1934). **a - 1249**

**Demel Kazimierz** - Kilka uwag o wplywie Wisly na stosunki w zatoce Gdanskiej [*De Vistulæ influentia in aquas sinus Dantisci*] (En pol., rés. franç.). 6 graph., Kosmos, LVII, 1/4, 145-158. Lwòw. (1933). **a - 1250**

Contrairement à l'opinion du Prof. Borowik, soutenue dans le travail « Contribution sur les effets des eaux de la Vistule » sur les rapports dans le Golfe de Dantzig, l'A. démontre que (1) la Vistule ne produit pas des courants dans ce golfe, ceux-ci étant provoquées par le vent, et que (2) l'écoulement de la Vistule ne peut être considéré comme un indice de l'écoulement et du régime de la Mer Baltique.

**Felber Otto-Heinr.** - Oberflächenströmungen des Nordatlantischen Ozeans zwischen 15° und 50° n. B. [*Currentiæ superficiales Oceani Atlantici Nordici inter 15° et 50° latitud. nord*]. 6 Taf., Aus d. Arch. d. Deutsch. Seewarte, 53, 1, 5-18. Hamburg (1934). **a - 1251**

Die vorliegenden Untersuchungen beschränken sich auf die Frage der jahreszeitlichen Aenderung der Oberflächenströmungen im Nordatlantischen Ozean zwischen 15° N. B. und 50° N. B., also des Teiles des Ozeans, in dem sich die subtropische Konvergenz und der grösste Abschnitt der nördlichen Polarfront befinden. Es wird zuerst ein Ueberblick über die Arbeitsmethode und das Material gegeben ; Vf. geht dann zu der eigentlichen Beschreibung der Oberflächenströmung im Nordatlantischen Ozean, über bzw. des Nordäquatorialstromes und des Antillenstromes, des Golfstromes, der Polarfront, des atlantischen Golfstromes, des eigentlichen Konvergenzgebietes und des Kanarienstromes.

**Gustafson T. & Otterstedt B.** - Observations de courants dans la Baltique. 1931 [*De observatis currentiis maris Baltici a. 1931*]. Tabl., 12 + xvi pp., Svenska Hydrogr., Geol. Komm. Skr., Ny serie : Hydrogr., XI. Lund (1932). **a - 1252**

La station principale de 1931 fut choisie au SE de Gotland à la profondeur de 140 mètres, de manière à se trouver au centre du bassin le plus vaste et le plus profond possible. A une distance de 40 kilomètres autour de la station la valeur minima de la profondeur est encore environ de 100 mètres ; les côtes de Gotland et de Lettonie en sont éloignées d'à peu près 70 kilomètres. Les mesures des courants furent exécutées principalement à l'aide de trois instruments enregistreurs Pettersson. Le navire employé par l'expédition fut le Skagerrak. Les valeurs sont recueillies en tables.

**Hackey H. B.** - Movements Resulting from the Mixing of Stratified Waters [*De motibus ex commixtione aquarum stratificatarum*]. Ann. Rep. Biol. Board Canada, 1933, 20-21. Ottava (1934). **a - 1253**

Account of experiments conducted in a small tank in the laboratory of the Atlantic Biological Station St. Andrews, N. B. in order to demonstrate the horizontal movements set up by the mixing of stratified water. The results of the experiments warrant some conclusions concerning the dynamic gradients set up by the mixing of stratified waters, causing systems of « making » currents, and the effect of the wind blowing towards the mixing point, which considerably modifies the above systems. The differential movements set up in the tank under various conditions are comparable with observed movements under similar conditions in nature.

**Hackey H. B.** - Replacement of Bay of Fundy Waters [*De aquarum amotionibus in Baja* Fundy]. Ann. Rep. Biol. Board Canada, 1933, 21. Ottawa (1934). **a - 1254**

Account of an analysis of temperatures and salinities from the Bay of Fundy for the period 1924-1930, showing that the hydrographic conditions vary from year to year. Correlation of wind data with the vertical temperature gradients for the various years.

**Idrac Pierre** - Appareil Idrac pour la mesure de courants verticaux sous-marins [*Apparatus* Idrac *ad currentias verticales submarinas mensurandas*]. 1 fig., Bull. Inst. Océanogr., 637, 1-3. Monaco (Princ.). (1934).

(—) Voir aussi : C. R. Acad. Sc. CXCVI, Janv. 126-127. Paris (1933). **a - 1255**

Description d'un appareil destiné à mesurer la composante verticale d'un courant profond (sous-marin ou sous-lacustre) et qui se compose en principe d'une hélice à axe vertical et à palettes légèrement inclinées sur l'horizontale, monté dans un carter agencé d'une façon spéciale. L'appareil de lecture, à bord du bateau, se compose d'un pont de Wheatstone muni d'un milliampèremètre. L'appareil commence à donner des indications à partir d'un courant vertical de 3 cm par seconde, et peut être descendu à plusieurs centaines de mètres de profondeur.

**Iselin C. O'D.** - The Development of our Conception of the Gulf Stream System [*De progressione intelligentiæ nostræ in inquirendo in systhema currentiæ nomine* Gulf Stream]. 4 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1993, 226-231. Washington, D. C. (1933). **a - 1256**

Story of the study and exploration of the Gulf Stream. The four chief names under which this current-system or parts of it are now known. The two main conceptions of the Gulf Stream's influence in the eastern North Atlantic. Petermann's explanation of the whole situation, concerned with the mapping of the Gulf Stream. Ancient and recent work based on surface temperature and salinity conditions. The question of the Gulf Stream and the Atlantic Stream ; their delimitation. Results of sections made in the area of the current. In conclusion the author claims that logically it is justifiable to split up the Gulf Stream system into three parts on the basis of the structure of the current when examined in cross-section, and that historically there is good precedent to call these the Florida Current, the Gulf Stream, and the Atlantic Current.

**Kisindo S.** - (d'après une étude de) - Méthodes d'observations des courants océaniques suivies actuellement par l'Hydrographic Department de Tokyo et résultats obtenus à ce jour [*Methodus observationum currentiarum oceanicarum quibus utitur Dipartimentum Hydrographicum in* Tokio. *Resultatus*]. 2 fig., Rev. Hydrogr., XI, 1, 85-92. Monaco (Princ.). (1934). **a - 1257**

Description des méthodes d'observation qui peuvent se classer sous les cinq rubriques suivantes : 1) Mesure directe de l'écoulement de surface au moyen de flotteurs pour courants ; 2) Mesure du courant au moyen d'enregistreur de courants ; 3) Mesure de la température et de la salinité de l'eau et calcul dynamique du courant ; 4) Etude de la masse liquide en examinant la nature physique et chimique de l'eau de mer ; 5) Etude des conditions perpétuellement changeantes des courants océaniques.

**Mandelbaum Hugo** - Gezeitenströme und Restströme bei Borkum-Riff Feuerschiff auf Grund von Beobachtungen der Jahre 1924-28 [*De currentiis apud* Borkum-Riff]. 28 Abb., 11 Beispielbl., 22 Tab., Aus. d. Arch. dtsch. Seew. LIII, 4, 1-80. Hamburg (1934). **a - 1258**

I. Das Reststromproblem in der Deutschen Bucht auf Grund der bisherigen Untersuchungen ; II. Kritische Beurteilung von Gezeitenstromuntersuchungen zur Begründung eines geeigneten Verfahrens ; III. Das in der vorliegenden Arbeit angewandte Verfahren : 1. Die Aufteilung der Beobachtungen auf einzelne Mondhalbstunden ; 2. Die Zerlegung der gerichteten Stromgrössen in 2 aufeinander senkrecht stehende Richtungen ; 3. Berechnung der Gezeitenströme ; 4. Berücksichtigung ungleicher Gewichte in der Ausgleichsrechnung. IV. Ergebnisse der Berechnungen : A. Die Gezeitenströme ; B. Die Restströme. V. Zusammenfassung. VI. Uebersicht über die Bezeichnungsweise. Beispielblätter u. Tabellenverzeichnis. Anhang. Literaturverzeichnis.

**McEwen G. F.** - Oceanography and Hydrology : Monthly Averages of Surface Currents Along the Coast of Central California Computed from Temperatures [*Oceanographia et Hydrologia. Medii numeri menstrui currentiarum superficialium præter litora Californiæ Centralis calculati ex datis temperaturæ*]. 1 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 33-34. Washington, D. C. (1933). **a - 1259**

Explanatory comment to a table, showing statements on the amount of solar radiation penetrating the sea-surface, the resulting rate of evaporation, and that determined by means of evaporation-pans.

**Morsier (de) P.** - La circulation des eaux de l'Atlantique Nord [*De circulatione aquarum Oceani Atlantici nordici*]. ill., Rev. Marit., Juin, 754. Paris (1934). **a - 1260**

L'A. résume les travaux océanographiques de Pettersson, Sandström, Le Danois, du Commandant Beauge et de l'International Ice Patrol Service, qui étudient la formation des courants.

**Nares J. D.** - Procédé pour observer le courant en eau profonde à bord du navire, sans mouiller [*De observatione currentiarum in aqua peralta, a navi nullo ancorae auxilio*]. 1 fig., Rev. Hydrogr., XI, 1, 163-164. Monaco (1934). **a - 1261**

Simple procédé où l'on utilise un alignement à terre pour maintenir le navire en place et une bouée avec le moins d'orin possible.

**Nomitsu Takaharu** - On the Density Current in the Ocean. I The Case of No Bottom-Current [*De currentia densitatis in Oceano. I. Nihil currentiæ in fundo oceanico*]. Mem. Coll. Sc., A. 16, 261-274. Kyoto (1933). **a - 1262**

The writer defines a « density current » as such a current as would be produced by a local difference in density alone and not attended by any sloping of the sea-surface. He first finds the density-current in a uniform solenoidal field and show that current produced by the sudden generation of a local difference in density will attain its steady value in only a few hours, or days at most. But the density of the actual water in the real sea does not change sensibly during a few days and shows only the yearly variation, so that the density current may be considered as always having a steady value corresponding to the gradient of density from time to time.

Next the « convection current » composed of a density and a slope current influenced by land is discussed. The convection current of Ekman's type corresponds to the case of a long straight coast perpendicular to the density gradient. The writer corrects some errors in Ekman's result, and discusses several other cases of convection current. (Author).

**Nomitsu Takaharu** - A Theory of the Rising Stage of Drift Current in the Ocean. The Case of No Bottom-Friction [*Theoria circa stadium sublationis currentiæ oceanicae declinationis. Nihil attritus in fundo oceanico*]. Mem. Coll. Sc., A. 16, 275-287. Kyoto (1933). **a - 1263**

The author compares the results obtained supposing that the water is uniformly viscous but that there is no friction for slipping on the bottom with those in the previous case of « no bottom-current », and concludes: 1) For a very deep sea the current coincides exactly with that in the previous case ; 2) The shallower the sea, the stronger is the current and the larger becomes the angle of deflection from the direction of the wind, just contrary to the previous case ; 3) The velocity of the current oscillates around the steady value with a period of 12 pendulum hours as before, but it does not attain a definite value even when $t = \infty$, and the hodograph has an asymptotic circle whose radius is inversely proportional to the depth of the sea ; 4) The time required for the current to attain a quasi-steady state is about one third the time required for it to become steady in the previous case.

The real sea must of course be between the two extreme cases of « no bottom-velocity » and « no bottom-friction ».

**Nomitsu Takaharu** - On the Density Current in the Ocean. II. The Case of No Bottom-Friction. [*De currentia densitatis in Oceano. II. Nihil attritus in fundo oceanico*]. 4 figs., Mem. Coll. Sc., A. 16, 383-396. Kyoto (1933). **a - 1264**

First the « density current » in an open boundless sea with uniform solenoidal field and the « convection current » influenced by land are discussed under the condition of « no bottom-friction ». The writer thus finds that Ekman's current-diagram put forward by him as the fundamental convection current, represents nothing but the currents in an *enclosed sea* with no bottom-*friction* and that all the other current diagrams given by Ekman are more or less erroneous. As the source of these errors the writer enumerates four weak points in Ekman's theory (Author).

**Nomitsu Takaharu & Takegami Tohichiro** - A Theory of the Rising Stage of Drift Current in the Ocean. III. The Case of a Finite Bottom-Friction Depending on the Slip Velocity [*Theoria circa stadium sublationis currentiæ oceanicae declinationis. III. Attritus definitus in fundo ex velocitate lapsionis*]. Mem. Coll. Sc., A. 16, 309-331. Kyoto (1933). **a - 1265**

Having found that in a shallow sea there would be too grave a difference between the currents in the two cases of « no bottom-current » and « no bottom-friction » already dealt with, the writers treat the problem again on the assumption most probable for a real sea, that there can exist a bottom-velocity $V_h$ and bottom-friction

$$R_s = fp\,V_h^2 \text{ or } f'p\,V_h$$

according to the strength of $V_h$. The results show that : 1) For a deep sea, the current is approximately equal to those in the two cases of « no bottom-current » and « no bottom-friction ».

2) For a shallow sea, the mode of generation and distribution of the current will be very different according to the wind velocity and the turbulence of the sea. For a strong wind the current approaches that in the case of « no bottom-current », and for a weak wind that in the case of « no bottom-friction » ; 3) At a given latitude, the greater the wind velocity Q or the smaller the viscosity of water, the greater is the ratio of the bottom velocity $V_H$ to Q ; but this ratio cannot exceed a limited value, even if the wind velocity becomes infinite ; 4) The greater the depth of the sea, the smaller is the ratio $V_H/Q$ and it becomes zero for an infinitely deep sea. (Authors).

**Nomitsu Tahakaru & Takegami Tohichiro** - On the Development of the Slope Current and the Barometric Current in the Ocean. II. Different Bottom-Conditions Assumed [*De progressione currentiæ declivitatis deque currentia barometrica in Oceano. II. Diversæ condiciones fundi marini considerantur*]. Mem. Coll. Sc., A, 16, 333-351. Kyoto (1933). **a - 1266**

For the same reasons as those given in the writers' second and third reports upon the drift current in the ocean, the slope current is treated again on two different assumptions with regard to the bottom condition : (1) that there is « no bottom-friction » and (2) that there acts a finite resistance depending on the bottom-velocity. In the case of « no bottom-friction », the whole water from surface to bottom must have the same velocity and it coincides with the motion of the surface water of an infinitely deep ocean with « no bottom-current ». In the case of a « finite bottom-friction » due to the bottom-velocity, the mode of generation and distribution of the current will differ very much according to the magnitude of the surface slope and the viscosity of water. For a large slope and a small viscosity, the current approaches that seen in the case of « no bottom-current » ; and for a small slope and a large viscosity it approaches that seen in the case of « no bottom-friction ». Further, the current possesses a character similar in many other respects to that of the drift current found in the case of similar bottom-conditions, explained in the previous papers.

To put it briefly, the effect of a bottom-friction is to add to the current found in the case of « no bottom-friction » such a « no bottom-friction » drift current as would be produced by a wind traction equal to the given bottom-friction and acting there. (Authors).

**Nomitsu Takaharu & Takegami Tohichiro** - On the Density Current in the Ocean. III. The Case of a Finite Bottom Friction Depending on the Slip Velocity [*De currentia densitatis in Oceano. III. Attritus definitus fundi oceanici ex velocitate lapsionis*]. 6 figs., Mem. Coll. Sc., A. 16, 397-408. Kyoto (1933). **a - 1267**

The density current in a uniform solenoidal field is here treated again on the assumption most probable for a real sea, that there acts a finite bottom-friction depending on the slip velocity. The distribution of the steady current and the mode of development of the current are bound to be very different according to the magnitude of the density-gradient and the turbulence of the sea. For a large density-gradient and a little turbulence, the current approaches that seen in the case of « no bottom-current » ; and for a small density gradient and a large viscosity it approaches that seen in the case of no « bottom-friction ». (Authors).

**Petersson Hans & Kullenberg Börje** - Observations of Water Trajectories in the Open Sea [*De observata aquæ traiectione in mari aperto*]. Nature, CXXXIII, 3349, 29. London (1934). **a - 1268**

On the researches by the steamer « Skagerak » using free drifting current-crosses. Rotating currents discovered in the central Baltic. The details will be published in Svenska Hydrografisk-Biologiska Kommissionens Skrifter.

**Römer F.** - Flaschenposten gleicher und ähnlicher Richtung in der Ostsee [*Buticulæ æquali vel simili directione per mare Balticum*]. Arch. Dtsch. Seew., 5, Hamburg (1933). **a - 1269**

**Schaff G.** - La circulación general de los Océanos [*De circulatione generali in Oceanis*]. Bol. Soc. Geogr., XLIX, 3/4. Lima (1932). **a - 1270**

**Schott G.** - The Humboldt Current in Relation to Land and Sea Conditions of the Peruvian Coast [*De currentia Humboldtiana pro condicionibus terræ ac maris ad litora Peruviensia*]. sketches, Geogr. 87-98. London (1932). **a - 1271**

**Sigematu Ryôiti** - On the Current in the Okhotsk Sea and the Origin of Oyasio [*De currentia per mare* Okhotsk *deque origine* τοῦ « Oyasio »] (In Jap.). 3 pls., Suiro Yôhô (Hydrol. Bull.), 12, 325-328. Tokyo (1933). **a - 1272**

Two dynamical current charts of the Okhotsk Sea in summer season are prepared, one from the result of hydrographical observations in 1916 of the « Unyô Maru », Imperial Fisheries Institute, and the other from that in 1917. In these charts, a south-going current is revealed in the middle part of the sea. One part of this current returns northward off the west coast of Kamtchatka, and the remaining part runs out to the Pacific through the middle part of the Kurile Islands. In the western part of the sea, some systems of vortical currents are expected. (Author).

**Staub W.** - Die Strasse von Florida [*Fretum in Florida*]. Ztschr. Ges. f. Erdk., 5/6. Berlin (1933). **a - 1273**

**Sverdrup H. U.** - On the Vertical Circulation in the Ocean Due to the Action of the Wind with Application to Conditions Within the Antarctic Circumpolar Current [*De circulatione verticali in oceano per venti actionem, pro condicionibus currentiæ antarcticæ circum-polaris*]. Discovery Rep., VII, 139-170. Cambridge (1933). **a - 1274**

The A. begins with a review of the theory founded by V. W. Ekman on the wind drift-currents pointing out the importance of the wind as a direct factor in the formation of vertical circulations giving then some examples of this action off the African and American west coast and the antarctic convergence region. He adds a new intermediate return current to the Scheme of circulation developed by Merz-Wüst and agrees to the theory of Clowes concerning the origin of the abyssal water in the Western part of the Pacific.

**Thiel G.** - Strombeobachtungen deutscher Fischdampfer unter Island [*De observatis currentiis per piscatorias naves vaporales Germanicas apud Islandiam*]. 2 Tab., 4 Taf. a. T., Ann. d. Hydrogr. LXI, 10, 324-333. Berlin (1933). **a - 1275**

Ergebnisse der Beobachtungen, welche über Wetter Strom- und Eisverhältnisse bei Island und im Barentsmeere ausgeführt und in das von der Deutschen Seewarte zu diesem Zwecke entworfene Meteorologische Tagebuch für Fischdampfer eingetragen worden sind. Es wurden rund 731 Beobachtungen gemacht, deren Ziel war, eine Trennung der Meeresströmungen und Gezeitenströme vorzunehmen und Stromtabellen für gewisse, sich während des Fortgangs der Bearbeitung ergebende Orte zu berechnen, die für bestimmte Zeitunterschiede gegen das Hochwasser eines Bezugsortes die Richtungen und Geschwindigkeiten der Ströme während der Gezeitenperiode ergeben.

**Thiel G.** - Strombeobachtungen des Vermessungsschiffes « Meteor » unter Island [*De observatis currentiis sub Islandia per navem* « Meteor » *ad mensuras ducendas idoneam*]. 3 Taf. a. T., 5 Tab. i. T., Ann. d. Hydrogr., LXII, 11, 450-456. Berlin (1934). **a - 1276**

Beschreibung der Methode und der Geräte, mit welchen während der Fischereinutzfahrt des Vermessungsschiffes « Me-

teor» in die isländischen Gewässer im Februar-März-April des Jahres 1933 an verschiedenen Orten unter Island Strommessungen an der Oberfläche und in 20 m oder 10 m Tiefe ausgeführt wurden. Ergebnisse der von der Deutschen Seewarte ausgeführten Bearbeitung der Beobachtungen.

**Thorade H.** - Methoden zum Studium der Meeresströmungen [*Methodus ad currentias marinas studendas*]. 126 Abb., 3 Taf., Handb. biol. Arbeitsmethoden von Abderhalden, Lief. 418, Abt. II, (Physikal. Methoden, Teil 3, H. 3, 1865-3095). Berlin u. Wien (1933). **a - 1277**

**Thorade H.** - Ueber Stromunruhe. Nach Beobachtungen im Kattegat, August 1931 [*De currentiarum perturbationibus. Ex observationibus in* Kattegat, *mense augusto 1931*]. 7 Abb., 7 Tab., 2 Taf. a. T., Ann. d. Hydrogr., LXII, 9, 365-377. Berlin (1934). **a - 1278**

I. Das Beobachtungsverfahren: 1. Schnell aufeinander folgende Beobachtungen mit einem einzelnen Instrumente. 2. Verwertung der gleichzeitigen Aufzeichnungen zweier Instrumente. II. Zerlegung der Ableseunterschiede in ihre Bestandteile: 3. Fahrtstrom, langsame Schwankung und schnelle Unruhe. III. Die schnelle Unruhe: 4. Geschwindigkeit der schnellen Unruhe. 5. Richtung der schnellen Unruhe. IV. Die langsame Schwankung: 6. Langsame Schwankung und Seegang. 7. Langsame Schwankung und Schiffseinfluss. 8. Langsame Schwankung und Stromgeschwindigkeit. 9. Langsame Schwankung und Mischung.

**Torrico R.** - Porqué el Perù necessita un estudio de la corriente que lleva su nombre. [*De currentia Peruviensi ac eius momento*]. 5 graf. Mem. Cons. Oceanogr. Ibero-Americ., 14, 3-16. Madrid (1933). **a - 1279**

Resumen de los conocimientos actuales sobre la corriente del Perù. Relación de las alteraciones de la corriente del Perù con algunos problemas económicos. Necesidad para el estudio sistemático y racional de esta corriente.

**Vallaux C.** - Les hypothèses sur la circulation océanique profonde [*De hypothesi circa oceanicam profundam circulationem*]. Scientia, a. XXVIII, LV, 266, 410-417. Bologna (1934). **a - 1280**

Nos connaissances sur la circulation de surface. Etudes pratiques et scientifiques sur la circulation de subsurface. Mesures dans l'eau profonde. Sur la théorie hydrodynamique de Bjerknes et sur les critiques de Ekman. Les variables de Ekman. Observations. Synthèse de Buchanan. Conclusion.

**Wheeler J. F. G.** - Bermuda Biological Station [*Statio biologica ad insulas* Bermuda *pertinens*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 231-232. Washington, D. C. (1934). **a - 1281**

Drift-bottle work. Temperature measurements. Tide-gauge. Biological work.

**Wiese W. J.** - Die Triften des «Sibirjakow» im Tschuktschen-Meere [*De navi* «Sibirjakow» *eiusque declinatione per Mare nomine* Tschukhotsk] (In Russ., Dtsch. Rés.). 4 Kart., 2 Tab., Trans. Arct. Inst., X, 103-124. Leningrad (1933). **a - 1282**

Bericht über die während der Eistrift des «Sibirjakow» vom 18. September bis zum 1. Oktober 1932 von der Insel Idlidja bis ungefähr Kap Deschnew ausgeführten Positionsbestimmungen, Windmessungen, Eisverhältnissebeobachtungen, usw. Die Analyse der Eistrift gibt eine Andeutung über das Vorhandensein östlich vom Kap Ikigur eines antizyklonalen Wirbels, dessen Entstehung vom Vf. durch das Zusammentreffen einer nordwestlichen Strömung aus der Bering-Strasse mit der südöstlichen Strömung längs der Tschuktschenküste erklärt wird. Eine zweite kleine Eistrift machte der «Sibirjakow» zwischen der Insel Koljutschin und dem Kap Onman am 11-16. September.

**Witting Rolf** - A Current-meter, its Use and some Results [*De quodam apparatu ad currentias mensurandas. Quæstio de usu ac resultatibus*]. 8 figs. & diagrs., Journ. Cons. Expl. Mer, VII, 2, 218-232. Copenhague (1932). **a - 1283**

The paper describes a current-meter, its construction and the methods for the reduction of observations, and gives the results of some measurements made in the Kattegat during the summer of 1932. These results indicate that the currents can be rather complicated. Strata of rapid kinematic transition-where eddying and almost gliding occur-divided the sea into several layers within which pulsations of the current were to be assumed.

**Wüst G.** - Deep Water Circulation of the Atlantic [*De circulatione aquæ peraltæ Oceani Atlantici*]. Nature, CXXXIII, 3361, 484-485. London (1934). **a - 1284**

On the results of «Meteor» expedition and on the history of the investigation of the Atlantic deep waters.

**Wüst Georg** - Anzeichen von Beziehungen zwischen Bodenstrom und Relief in der Tiefsee des Indischen Ozeans [*Vestigia pertinentia ad correlationes inter currentias fundi marini et elationes fundi in Oceano Indiano*]. 3 Abb., Naturwiss., XXII, 16, 241-244. Berlin (1934). **a - 1285**

Frühere Untersuchungen. Untersuchungsmaterial. Kritische Betrachtung und Berichtigungen der Tiefenkarte von Groll. Neue Annahme einer Zweiteilung der indischen Bodenzirkulation in eine westliche und eine östliche. Erörterung ihrer Ausbreitung, Temperaturmessungen. Vergleich zwischen der West- und Ostmulde. Literatur.

**Zenkewitch L. A.** - On the Aeration of the Bottom Waters through vertical Circulation [*De aëratione aquarum in fundo marino per circulationem verticalem*]. (In Russ., Engl. rés.). 3 fig,. Bull. of the St. Oceanogr. Inst., 5. Moscow (1392). **a - 1286**

Ausgehend von der ungleichmässigen Verteilung der Benthos-Biomasse in der Barents-See, dem Weissen Meere und der Kara-See und angeregt durch eine Arbeit von Subov (1930), untersucht Vf. die Ventilationsverhältnisse der Bodenschichten durch die Vertikalzirkulation. Er unterscheidet eine Oxydationszone (0-100 und tiefer als 100 m), eine Oxydations-Reduktionszone (Bodenschicht im engeren Sinne) und Reduktionszone (die oberen mit Bodenorganismen belebten Bodenschichten).

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**Deutsche Seewarte** - Meereskundliche Beobachtungen auf deutschen Feuerschiffen der Nord- und Ostsee. Jahr 1922 [*Observationes oceanographicæ in navibus pharum ferentibus ad Mare Nordicum et Mare Balticum pertinentibus a. 1922*]. Deutsche Seewarte, Hamburg (1934). **a - 1287**

**Japanese Hydrographic Department** - Reports on Picked-up Current Bottles, Nos. 96-107 [*Relationes de buticulis fluctuantibus collectis. No 96-107*]. (In Jap.). Suiro Yôhô (Hydrogr. Bull.) 12. append. Tokyo (1933). **a - 1288**

The Hydrographic Department is throwing adrift several thousands of current bottles every year in the adjacent seas of Japan and at various places in the Pacific Ocean for the purpose of studying the ocean currents. 247 bottles picked up in the recent time are tabulated in the reports, by the following data: Date and place when and where thrown overboard. Name of ship thrown from. Date and place when and where picked up. Name of finder. (S.: Ogura. Jap. Journ. Astr. & Geoph., XI, abstr. 142, p. 43. Tokyo (1934).

**Svenska Hydrografisk-Biologiska Kommissionen** - Svenska Hydrografisk-Biologiska Kommissionens Fyrskeppsundersökning år 1932. (Engl. rés.) [*De investigationibus peractis in navibus pharum ferentibus a Commissione hydrographico-biologica Suetia a. 1932*]. many tabl., 1 chart, diagr., 62 pp. Elanders Boktr. A.-B. Stockholm (1934). **a - 1289**

The temperature of the air and the water, winds. Surface and bottom currents. Salinity. The quantity of heat contained in the Baltic: Observations, mean temperatures for every decade of the year; the quantity of heat and its relationship with the meteorological conditions; the amount of heat and the solar radiation.

**U. S. Department of Commerce Coast & Geodetic Survey** - Current Tables. Atlantic Coast, North America for the Year 1934 [*Tabulæ currentiarum. Litora Atlantica. America Nordica. a. 1934*]. 2 tabl., 6 diagr., 133 pp., U. S. Govmt. Print. Off., Coast. & Geod. Surv. Ser. nº 560. Washington, D. C. (1933). **a - 1290**

Calendar. Preface. Predicted currents. Current differences and constants. Velocity of currents at any time. Duration of slack. Coastal tidal currents. The Gulf Stream. Wind currents. The combination of currents. Current diagrams. Astronomical data. Publications of the Coast and Geodetic Survey relating to tides and currents. The purpose of the publication is to furnish information regarding currents to the mariner, the engineer, and the public generally.

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**An.** - Wieviel Prozent Ostsee-Flaschenposten werden aufgefunden? [*Numerus buticularum repertarum in Baltico mari*]. Arch. Dtsch. Seew., 5. Hamburg (1933). **a - 1291**

**An.** - Report of the Committee on Submarine Configuration & Oceanic Circulation, U. S. A. [*Relatio Comitati pro configuratione submarina et circulatione oceanica*]. Bull. Hydrogr. Int., 1, 10. Monaco (1933). **a - 1292**

Bref résumé du contenu du rapport.

## Aestus et apparatus mareographici - Maris livellus.

**Abbot C. G.** - The Rotation of the Earth [*De rotatione terrestri*]. Science, LXXIX, 2055, 454. New York (1933). **a - 1293**

Brief discussion of the author on the effect of Earth's rotation on the expansion of the atmosphere. Question about the sun's retarding influence on the tides.

**Bauer Hubert A.** - A World Map of Tides [*Aestuum totius mundi tabula*]. 1 map, 3 tabl., Geogr. Rev., XXIII, 2, 259-270. New York (1933). **a - 1294**

The author gives an analysis and description of a *geographical* map of the world's tides elaborated in order to meet the deficiency of a geographic representation of the results of the work of a tidal mathematician, who has developed tidal knowledge, especially prediction, to a degree almost beyond the limits of practical needs. In the paper are discussed the technical basis, the general interpretation of the map, the additional hydrodynamic laws involved, as well as mixed tides and their distribution, semidiurnal tides, diurnal tides and tideless regions. In the tables are given three lists of stations with semidiurnal tides, stations with diurnal tides and stations with mixed tides.

**Berezkine V. A.** - Les flux dans la Mer des Frères Laptev et dans la Mer Sibérienne Orientale [*De æstibus in mari nomine* Laptev *et in mari Siberiano orientali*] (En russe). 5 fig., 2 tabl., Zap. Idrogr., 5, 9-24. Leningrad (1933). **a - 1295**

**Blockmans J.** - Récapitulations décennales des observations de marées faites sur l'Escaut maritime et ses affluents soumis à la marée pendant la période 1921-1930 [*Recapitulationes decennales observationum æstuum in* Escaut *maritimo peractarum eiusque confluentibus sub actione æstuum ab a. 1921 ad a. 1930*]. nombr. tabl., Ann. Trav. Publ., 4, 573-595, XXXV sér. II. Paris (1934). **a - 1296**

Les règles suivies pour l'élaboration de ces récapitulations sont identiques à celles de deux périodes décennales précédents. Voir tome XVII, p. 863, 1912 et tome XXVIII, sér. II, 5, p. 693, 1927.

La plupart des appareils marégraphiques, détruits au cours des hostilités 1914-1918, ont été rétablis.

**Cline Isaac M.** - Tides and Coastal Currents Developed by Tropical Cyclones [*Aestus atque currentiæ litoreæ cyclonibus tropicalibus excitatæ*]. Monthly Weath. Rev., 61, 2, 36-38. Washington, D. C. (1933).

(—) Voir extrait en franç. dans : Union Géod. & Géoph. Int., Ann. Comm. Raz de Marée, 3, 19-21. Paris (1933). **a - 1297**

The author has been convinced by personal experience that the high tides developed by the hurricane winds on the coast are not only the greatest destructive agents but also one of the outstanding indicators of the intensity and the extent of the storm and the place towards which it is moving. In the present paper he gives some examples of the above phenomenon and a summary of his work on « Relation in changes in storm tides on the coast of the Gulf of Mexico to the center and movement of hurricane », elaborated on hand of the automatic tide records and meteorological and other data which had been recorded in tropical cyclones from 1900. He also deals briefly with development of coastal currents by the swells sent out by the winds of the right-hand rear quadrant of the cyclone.

**Courtier A.** - Note sur la variation du niveau moyen de la mer à Brest (France) en fonction de la pression atmosphérique [*Nota de maris livelli medii variatione apud* Brest (*in Gallia*) *pro atmosphærica pressione*]. 4 tab. d. t., 3 tab. h. t., Union Géod. & Géoph. Int., Ann. Comm. Raz de Marée, 3, 22-35. Paris (1933). **a - 1298**

Coefficient du rapport théorique qui existe entre la baisse du niveau de la mer et la montée du baromètre à mercure. Détermination expérimentale de ce coefficient. Dans la présente note l'A. apporte une contribution nouvelle à l'étude de cette dernière question en ce qui concerne le Port de Brest. Il publie aussi le bulletin des niveaux moyens mensuels de la mer à Brest pendant 45 années consécutives qui représentent une documentation importante sur les variations du niveau moyen de la mer sur les côtes de l'Océan Atlantique.

**Critikos N. A.** - Le mouvement extraordinaire des marées qui s'est manifesté dans l'Egée en Avril 1928 [*Aestuum motus abnormis in mari Aegaeo mense aprili 1928*]. 1 fig., Union Géod. & Géoph. Int. Ann. Comm. Raz Marée, 1, 29-40. Paris (1931). **a - 1299**

Description de mouvements extraordinaires de marée qui se sont manifestés en Grèce du 20 au 29 avril 1928 en coincidence avec de nombreuses sécousses séismiques qui se produisirent dans différentes zones d'ébranlement de la Péninsule Balcanique et de l'Asie Mineure occidentale. L'état météorologique de la Grèce Orientale et de l'Egée du 20 au 29 avril 1928. Conclusions sur l'origine des marées extraordinaires observées.

**Defant Albert** - Gedanken über interne Gezeitenwellen [*De internorum æstuum undis*]. James Johnstone Mem. Vol., 310-315. Liverpool (1934). **a - 1300**

Nach einer kurzen Uebersicht der ersten Untersuchungen über die internen Gezeitenwellen, versucht der Vf. an Hand seiner eigenen Beobachtungen und der Arbeiten von O. Persson, J. P. Jacobsen, N. Zeilon und W. Ekman die folgenden Fragen zu beantworten: « Was sind die internen Gezeitenwellen und wodurch werden sie hervorgerufen ». In seinen Schlussfolgerungen bestätigt er, dass beim Problem der internen Gezeitenwellen noch viele Fragen einer sowohl experimentellen als theoretischen Klärung bedürfen.

**Doodson A. T. & Corkan R. H.** - The Principal Constituent of the Tides in the English and Irish Channel [*De æstuum præcipuo constituente in Freto Britannico deque Freto Hiberno*]. 4 charts., Phil. Trans. R. Soc. of London, Ser. A, 231, 29-53. London (1932). **a - 1301**

**Eginitis Demetrius** - Les marées dans la science ancienne [*De æstibus apud scientiam veterem*]. Praktika Acad. Athènes, 7, 194-203. Athènes (1932).

(—) Scientia, XXVII, Giugno, 385-393. Bologna (1933). **a - 1302**

Résumé des connaissances et des interprétations du phénomène des marées au cours des cinq siècles qui séparent Platon de Pline. Après un examen critique des textes anciens, l'A. démontre que certaines idées attribuées aux anciens écrivains, et en particulier à Aristote, sont dues à une interprétation erronée de leurs textes. Il prétend même qu'Aristote a considéré les marées de l'Atlantique somme la conséquence de la réflexion de l'onde de la marée des côtes et qu'il a, par conséquent, été le précurseur de la théorie moderne des marées qui les envisage comme étant des ondes stationnaires.

**Emmons Gardner** - Study of the Circulatory and Thermal Results of the Pumping Effect of the Tides over Submarine Slopes [*De effectu circulatorio ac thermico æstuum in clivos submarinos*]. Woods Hole Oceanogr. Inst., Rep. 1930-32, 32. Woods Hole, Mass. (1933). **a - 1303**

Brief account of observations made in connection with a study of thermal effects produced by the tide flowing over the slope between Nantucket Shoals and the deep waters of the Gulf of Maine.

**Gibson A. H.** - Tidal Estuaries: Forecasting by Model Experiments [*De æstuariis æstuosis. Quæstio de modulis ad experientias ducendas*]. Nature, CXXXIII, 3374, 969-972. London (1934). **a - 1304**

Some hints about Reynold's models of estuaries of simple symmetrical form. Reynold's conclusions. Critical remarks on the use of tidal models. The silt problem. Severn estuary. A Severn model to a horizontal scale of 1 : 8500 and a vertical scale of 1 : 200. General remarks and conclusions.

**Grace S. F.** - The Principal Semi-Diurnal Constituent of Tidal Motion in the Gulf of Mexico [*De præcipuo constituente semidiurno motus æstuum Sinus Mexicani*]. 1 fig., sev. tabl., Monthly Not. R. Astron. Soc., Geophys. Suppl., 3, 3, 156-162. Edinburgh (1933). **a - 1305**

The diurnal ($K_1$) tidal motion of the Gulf of Mexico has been examined by the author in a previous paper (S. F. Grace: « The Principal Diurnal Constituent of Tidal Motion in the Gulf of Mexico », M. N. R. A. S., Geophys. Suppl., 3, 70-83, 1932). In the present paper the $M_2$ tidal motion is considered, with the same method as that in the first paper; it refers to the four subsidiary motions, the combination of the subsidiary motions and contains a co-tidal chart which differs entirely from that given by Harris. It resembles more that of Sterneck.

**Hasse G.** - Le « Verdronken Land » de Saaftingen [*De regione submersa* Saaftingen *nomine*]. 1 fig., Bull. Soc. Belge de Géol., XLI, 3, 210-213. Bruxelles (1932). **a - 1306**

Une marée exceptionnelle a cassé les digues mal construites et a inondé le pays de Saaftingen.

**Hidaka Kôji** - Development of the Sloping Sea-Level near a Shore Due to Wind [*De inclinatione, ventorum causa, livelli marini apud litora*] (In Jap.). Umi to Sora, 13, 255-261. (?) (1933). **a - 1307**

Mathematical investigation of the development of sloping sea-level near a shore after a wind has set in. The sea is supposed to be of an infinite extent having a uniform depth except on one side where the sea is limited by a straight shore of an infinite lenght. (See: Abstr. by T. Okada, Jap. Journ. Astr. & Geoph., XI, 3, abstr. 148, 45, Tokyo 1934).

**Hidaka Kôji Takatsugu, Kubo Tokio & Yasui Zeniki** - Tidal Currents at the Station where S. S. « Yasima Maru » was foundered by Typhoon on Oct. 18, 1933 [*Agitur de currentia æstuosa apud stationem in qua navis* « Yasima Maru » *naufragium fecit per typhonem die 18 mensis Octobris 1933*] (In Jap.). tabl. & pls., Journ. Oceanogr., VI, 1, 103-112. Kobe (1934). **a - 1308**

**Kirkpatrick R. Z.** - Panama Tidal Differences [*Aestus differentia in regione Panamensi*]. chart. diagr., Milit. Eng., XXIV, May-June, 236-237. Washington (1932). **a - 1309**

**Kjaer Rolf & Fjeldstad J. E.** - Tidal Observations in the Arctic [*Observationes altorum æstuum in Oceano Arctico*]. 8 figs., 7 tabl., Skrifter om Svalbard og Ishavet, 14, 1-14. Oslo (1934).

(—) Voir rés. franç. dans: Rev. Hydrogr., XI, 1, 93-97. Monaco (1934). **a - 1310**

These observations have been carried out on the Norwegian Arctic Expeditions sent out in the years 1930-1933 by Norges Svalbard- og Ishavs-undersøkelser i Oslo. Observations in Bear Island, Southeast Greenland, and East Greenland. Methods of analysis. Comparison with results from other stations. The values of harmonic constants and hourly values in centimetres of height of sea-level referred to an arbitrarily selected zero level as well as meteorological observations are all expressed in tables.

**Klingenberg K. S.** - Lists Containing the Highest (Lowest) observed High (Low) Water Yearly for the Time 1922-1932 (Norway) [*Tabulæ aestuum*]. 8 tabl., Union Géod. & Géoph. Int., Ann. Comm. Raz de Marée, 3, 36-41. Paris (1933). **a - 1311**

Listes contenant les plus hautes et plus basses eaux observées sur les côtes de Norvège, au cours des années 1922-1933 et comportant également des renseignements sur les eaux basses et hautes les plus voisines des plus hautes et des plus basses eaux observées.

**Kolynbakin B.** - Données sur les marées dans la Baie d'Ob et près de l'Ile Balyi [*Notitiæ de maris æstibus in baja* Ob *nomine et propter insulam* Balyi]. Zap. po Gidrogr., 1, 34-42. Leningrad (1933). **a - 1312**

**Kövensligethy Radó** - Az Arapály Jelensége a Világegyetemben [*De maris æstibus eorumque phænomenis*]. Tenger, XXIV, 1/6, 3-5. Budapest (1934). **a - 1313**

**La Cour D.** - Conditions anormales du niveau de la mer dans les eaux danoises les 15 et 16 janvier 1931 [*Condiciones abnormes maris livelli in aquis Danicis diebus 15 et 16 mensis Januarii 1931*]. 33 fig., 11 tabl., Union Géod. & Géoph. Int., Ann. Comm. Raz de Marée, 2, 30-117. Paris (1932). **a - 1314**

Traduction française de l'ouvrage paru dans « Publikationer fra det danske meteorologiske Institut, Meddelelser », nº 4, Copenhague. Résultats de l'observation des marées exceptionnelles consécutives au cyclon du 15 janvier 1931, centré sur l'Islande. Renseignements météorologiques et océanographiques parvenus à l'Institut Météorologique Danois. Commentaire des tableaux, graphiques et cartes dressés sur la base de ces renseignements, portant sur l'action directe des vents, le mécanisme de la progression et la régression des eaux, les seiches, les courants marins, etc. Les observations les plus curieuses reportées dans le présent ouvrage, se rapportent aux différences considérables de niveau à Drodgen et aux passages étroits entre les îles du sud et l'opposition fréquente de la direction du courant et des vents.

**Lelacheur & Sammons J. C.** - Tides and Currents in Long Island and Block Island Sound [*Aestus et currentiæ propter* Long Island *et* Block Island Sound]. ills., 186 pp., U. S. Govmt. Print. Off. Washington (1933). **a - 1315**

**Lettau Heinz** - Freie Schwingungen (Seiches) des Kurischen Haffes [*Oscillationes liberæ* (*Sessae*) *in* Kurisches Haff]. Schr. der Phys. ökon. Ges. zu Königsberg i Pr., LXIII, 3/4. Königsberg (1932). **a - 1316**

Diese Studie gründet sich auf die vom preussischen Geodätischen Institut, Potsdam, unternommenen Schreibpegelaufzeichnungen. Der Vf. entwickelt seine Theorie, dass die verschiedenen Seiches von Cyklonen verschiedener Geschwindigkeit abhängen. (Siehe Gerl. Beitr. z. Geophys., XXXVII, 1, 1932).

**Marmer H. A.** - Mean Sea Level as a Geophysical Datum [*Marium livellus medius ac datus geophysicus*]. diagr., Amer. Journ. of Sc., XXIV, 35-45. New Haven (1932). **a - 1317**

**Marmer H. A.** - The Datum of Soundings in Tidal Waters [*Signum scandaliorum in aquis æstuosis*]. Milit. Eng., Nov.-Dec., 483-485. Washington (1933). **a - 1318**

**Marmer H. A.** - The Importance of Tide-Observations [*Aestuum observationes earumque momentum*]. Nat. Res. Counc., Trans. Amer. Geogr., Union, 14th Ann. Meet. Apr. 27-29, 1933, Comm. Ocean Basins, Append. C, 21-22. Washington, D. C. (1933). **a - 1319**

Two directions in which the systematic and continuous observations of tides at a number of places are important in connection with the problems of the geophysical and geological study of oceanic basins, possibility of an accurate determination of basic data from which both heights of land and depths of the sea may be measured, and furnishing of quantitative data for determining coastal stability. The author emphasizes also another interesting question, upon which the above observations may throw light, i. e. the stresses within the Earth.

**Marmer H. A.** - Las caracteristicas de la marea [*Aestuum peculiaritates*]. Rev. Gen. Mar., LVI, Junio/Julio. Madrid (1933). **a - 1320**

**Marmer H. A.** - The Greatest Daily Tide [*De maximo æstu diurno*]. Geogr. Rev., XXIV, 2, 334-335. New York (1934). **a - 1321**

Information on hand of observations made by Russian and Japanese investigators which show that the Okhotsk Sea is to be added to the regions in which daily tides occur. These tides have a special interest, because they have large range, i. e. the average range is of 22 feet and on one day even a range of 37 feet has been reported. These tides, writes the author, represent the greatest daily tides in the world.

**Marmer H. A.** - Phénomènes de marée dans l'East River, Port de New York [*De æstuum phænomenis in* East *flumine, in portu* New York]. 4 fig., Rev. Hydrogr., XI, 1, 98-106. Monaco (Princ.) (1934). **a - 1322**

Résultats d'une étude complète des marées et des courants des chenaux du port de New York faite conjointement par le Coast and Geodetic Survey et par le Corps des Ingénieurs de l'Armée des Etats Unis d'Amérique, au cours de laquelle les marées ont été observées à environ 80 emplacements distribués sur les deux rives des 14 Milles marins de l'East River; ces observations ont permis d'enregistrer le caractère local de la marée ainsi que les variations d'heure des pleines mers et de l'amplitude de place en place. Les résultats obtenus sont intéressants non seulement pour ce chenal maritime très important, mais jettent aussi une certaine lumière sur le problème général des marées dans un chenal réunissant deux bassins marégraphiques indépendants.

**Marmer H. A.** - The Variety in Tides [*Variatio æstuum*]. 7 figs., U. S. Nav. Inst. Proc., LX, 3, 373-380. Annapolis, Md. (1934). **a - 1323**

Differences in the form of tides over the world. Examples. Explanations.

**Ogura Sinkiti** - The Tides in the Seas Adjacent to Japan [*De æstibus marium ad Japoniam pertinentium*] (In Jap.). 65 pls., Bull. Hydrogr. Dpt., 7, 1-189. Tokyo (1933).

(—) S. Abstract in Jap. in Suiro Yôhô, 7 pls., 12, 183-190, 227-240. Kobe (1933). **a - 1324**

This paper is written principally for the purpose of supplying those interested in the problems of daily motions of sea water with data on tides and tidal currents in the adjacent seas of Japan. In addition, a brief summary of the results of investigations on the tides hitherto made by various authorities are given. The harmonic constants of $M_2$, $S_2$, $K_1$ and $O_1$ tides are given for 704 stations in the seas near Japan and 69 along Japanese coast. The annual and secular fluctuations of sea-level are studied in the last section of the volume. The appended plates show the observed tidal curves at 28 stations, co-tidal charts of $M_2$ and $K_1$ tides, co-range charts of $M_2+S_2$ and $K_1+O_1$ tides, current charts, etc. (See abstr. by the author, Jap. Journ. Astr. Geoph., XI, 3, abstr. 143, 44. Tokyo, 1934).

**Ogura Sinkiti** - On the Tide and Tidal Currents in the Northern Part of the Hwang Hai (Yellow Sea) [*De æstibus, æstuumque currentiis in parte septentrionali* Hwang Hai] (In Jap.). 18 pls., Suiro Yôhô (Hydrogr. Bull.), 12, 47-61, 89-99, 137-149. Tokyo (1933). **a - 1325**

Results and analysis of observations made at 12 stations remote from land in the Hwang Hai, carried out in recent years by the Hydrographic Department and fisheries institutions of Japan. The observations at each station have been made at various depths below the surface and extended for about 24 hours. The directions, velocity, and time of the maximum and minimum currents have been obtained both for semi-diurnal and diurnal currents. By assuming probable relations existing among the amplitudes and phase-retardations for semi-diurnal component tides and those for diurnal components, the author derived the harmonic constants of $M_2$ and $K_1$ currents for the directions of the maximum and minimum velocities. At the end of the paper the author studies the tides in the northern part of the Hwang Hai on hand of current and tidal observations. He also calculates the gradient of sea-level and directions of co-tidal and co-range lines. (See also Jap. Journ. Astr. & Geoph., XI, 3, abstr. 137, 41-42, by the author, Tokyo, 1934).

**Ogura Sonkiti** - On the Tidal Currents in the Wakamatu Harbour [*De æstuum currentiis in portu*

Wakamatu] (In Jap.). 3 pls., Suiro Yôhô (Hydrogr., Bull.), 12, 521-527. Tokyo (1933). **a - 1326**

The tidal currents in the Wakamatu Harbour, on the northern coast of Kyûsyû were studied on hand of data of observations made by the Mariners' Association in Wakamatu, from May, 1931, to April, 1932. The inner and the outer harbours. Direction and maximum velocity of the tidal currents in the narrows, by which the two harbours communicate. Charts showing the flood and ebb currents in the harbour at their maximum strength (See : Summary by the author. Jap. Journ. Astr. & Geoph., XI, 3, abstr., 141, 43. Tokyo, 1934).

**Okada M. & Miyosi K.** - Tidal Oscillations in Sagami Bay [*De æstus oscillationibus in baja* Sagami]. Journ. Imp. Fish. Inst., Dec. 15-28. Tokyo (1933). **a - 1327**

**Okada T. (Director)** - Tidal Currents in the Muroran Harbour (Hokkaidô). (Aug. 1932) [*Aestuosæ currentiæ in portu* Muroran (Hokkaido)]. Journ. Oceanogr., VI, 2, 241-246. Kobe (1934). **a - 1328**

**Orrego Lira** - Chili. Raz de marée observés dans divers ports [*Cilena regio. De æstuosis phænomenis in portibus diversis*]. 8 fig. d. t., 2 pl. h. t. Union Géod. & Géoph. Int., Ann. Comm. Et. Raz de Marée, 3, 42-49. Paris (1933). **a - 1329**

Renseignements sur quelques phénomènes marins observés dans le Port de Coquimbo, le Port de Constitucio, le Port d'Antofagasta et le Port d'Iquique au Chili, dont l'origine ne peut être attribuée qu'à des mouvements séismiques très lointains et que, par conséquent, l'on peut considérer comme des raz de marée.

**Pettersson O.** - Interne Gezeiten-Wellen [*Aestuum undæ internæ*] (In dtsch, engl. Rés.). 12 Abb., Cons. Perm. Int. Expl. Mer, Rapp. & Pr.-Verb. des Réunions, LXXXII, 1-26, i-viii. Copenhague (1933). **a - 1330**

Vf. schildert die internen Gezeiten-Wellen, welche von ihm entdeckt worden sind, (s. O. Pettersson : « Strömstudier vid Oestersjöns portar », Sv. Hydrogr. Biol. Komm. Skr. III, 1908, und : O. Pettersson : « Gezeitenähnliche Bewegungen des Tiefenwassers », Publ. de Circonst., n° 47, Ref. in Krümmels Handb. d. Ozeanogr. II) Diese internen Gezeiten-Wellen sind als direkte Wirkungen der vertikalen Komponente der Gravitation des Mondes und der Sonne zu betrachten. Dass man bisher die Bedeutung der vertikalen Komponente der Flutkraft verkannt hat, beruht darauf, dass man den Einfluss der Schichtung des Meeres übersah. Die hier besprochenen internen Bewegungen des Meeres sind keine freien Wellen sondern gezwungene Gezeiten-Wellen in den Zwischenschichten des Meeres. Es wird ausserdem die innige Verbindung zwischen der ozeanischen Zirkulation und den Gezeitenphänomenen besprochen. (S. Uebers. in franz : James Johnstone Mem. Vol., 294-309. Liverpool, 1934).

**Proudman J.** - On the Distribution of Tides Over an Element of the Sea [*De æstuum distributione per elementum quiddam marinum*]. James Johnstone Mem. Vol., 316-323. Liverpool (1934). **a - 1331**

The object of the present paper is to find formulae relating to an elementar region which is bounded by two radii and by two transverse circular arcs. Over such a region the curvature of the earth is supposed to be negligible and the depth of the sea to be sensibly uniform. The radius of the outer arc is supposed to be small compared with a tidal wave-length and the normal components of current to be sensibly uniform over each side. In the paper six independent solutions of the tidal equations over the region are reported.

**Rauschelbach H.** - Die Hochseepegelbeobachtungen im südlichen Kattegat im August 1931 [*De hydrometricis observationibus in altum peractis in* Kattegat *meridionali, mense Augusto 1931*]. 7 Tab., 2 Taf. a. T., Ann. d. Hydrogr., LXII, 5, 6, 177-185 ; 233-250. Berlin (1934). **a - 1332**

Bericht über die vom 12. bis 17. August 1931 mit einem nach den Angaben des Vf. erbauten Hochseepegel ausgeführten Beobachtungen an der Ankerstation des R. F. D. « Poseidon » an 56° 21.0' N-Br. und 11° 59, l'0-Lg. I. Teil. Auswertung der Beobachtungen : A. Ausführung der Beobachtungen. B. Ablesung der Aufzeichnungen. Zusammenstellung der Beobachtungen. Innere Genauigkeit der Beobachtungen. II. Teil. Bearbeitung der Beobachtungen. A. Non-harmonisches Verfahren. B. Harmonisches Verfahren. Ermittlung der harmonischen Konstanten. Darstellung der Beobachtungen. Berechnung der harmonischen Konstanten. Auswertung der Beobachtungen von Hesselö.

**Romanovskij** - Influence du prélèvement de l'eau pour l'irrigation des fleuves du bassin de la Mer Caspienne sur le niveau de cette dernière [*De influentia detractionis aquæ ad irrigandum ex fluminibus bacini maris Caspii in libellum maris*]. 2 graph., 2 tabl., Ghidrotekhn. Stroit., 8, 14-22. Moskva (1933). **a - 1333**

Après quelques considérations de caractère général sur les fluctuations et les variations du niveau de la Mer Caspienne, l'A. étudie le bilan d'eau de cette mer en fonction de l'apport des fleuves qui viennent s'y jeter et de l'évaporation de l'eau de sa surface. Il fait ensuite le calcul de la quantité d'eau qui sera prélevée des affluents de cette mer lors de l'accomplissement des travaux projetés pour l'irrigation de la région Volgo-Caspienne ; détermine la dépendance de la superficie de la Mer Caspienne de l'abaissement de son niveau, ainsi que l'abaissement même du niveau par suite des travaux d'irrigation et illustre enfin l'effet de l'abaissement de la Mer Caspienne sur la navigation. Vu que l'abaissement de la Mer Caspienne pourra avoir des conséquences très défavorables pour la navigation et la pêche dans cette mer, ainsi que sur le climat et les conditions sanitaires de la région environnante, l'A. illustre dans la dernière partie de son article les mesures qui, selon lui, pourraient empêcher l'abaissement du niveau de la Mer Caspienne, tout en permettant de prélever la quantité d'eau nécessaire pour l'irrigation des terrains de la région Volgo-Caspienne.

**Romer** - Raz de marée et marée de tempête à la Martinique du XVII-ème siècle à nos jours [*De undis æstuosis, æstibusque procellosis in* Martinique *a sec. XVII in hodiernum*]. Union Géod. & Géoph. Int., Ann. Raz de Marée, 136-141. Paris (1932). **a - 1334**

Liste, avec notes illustratives, des plus forts raz de marée et marées de tempête connus depuis 1666 jusqu'à nos jours, qui ont provoqué des pertes sérieuses à la Martinique.

**Schokaljsky J. M.** - Niveau de l'Océan Mondial [*Livellus oceanorum*] (En russe, rés. franç.). Mém. Inst. Hydrol., X, 345-347. Léningrad (1933). **a - 1335**

Le nivellement de précision exécuté aux Etats Unis a démontré que le niveau de l'Océan Pacifique est plus haut de celui de l'Atlantique, ainsi que le livellement de précision entre Kronstadt et Vladivostok a démontré que le niveau à Kronstadt est de 1,87 m. plus haut de celui observé à Vladivostok, de 0,24 m. plus haut que celui d'Arkhangeljsk, de 0,49 plus haut que le niveau de la mer à Odessa. Il résulte de ces observations que le niveau de l'Océan Mondial est situé plus haut à l'ouest qu'à l'est, dans l'Eurasie qu'en Amérique. (Auteur).

**Springstubbe Helmut** - Die Gezeiten-Erscheinungen im St. Lorenzgolf. Beitrag zu den Untersuchungen über Gezeiten-Erscheinungen in Mittel- und Randmeeren, in Buchten und Kanälen [*De æstibus eorumque phænomenis in Sinu Sancti Laurentii. Contributio in inquisitiones de æstibus in maribus mediterraneis et externis, in canalibus et sinibus*]. 17 Tab., 4 Taf. m. 2 Kart. & 17 Abb., Arch. Deutsch. Seew., LIII, 2, 3-33. Hamburg (1934). **a - 1336**

Der Zweck der vorliegenden Untersuchung sollte nur sein zu beweisen, dass die Anwendung der hydrodynamischen Theorie sogar in Fällen möglich ist, wo die verwickelte Gestalt des Meeresbeckens auf den ersten Blick eine theoretische Bestimmung der Gezeiten aussichtslos erscheinen lässt, wenn nur die Aufteilung des Nebenmeeres in einzelne Schwingungsgebiete günstig genug erfolgt. Sein Inhalt ist folgender : I. Der bisherige Stand der Erforschung. II. Die Anwendung der hydrodynamischen Theorie auf die Gezeiten des St. Lorenzgolfes. III. Zusammenfassung der Ergebnisse.

**Stachenwitch V.** - Les marées dans l'embouchure du fleuve Indiga [*De æstibus ad accessus fluminis* Indiga]. Ber. Hydrogr., 2, Leningrad (1933). **a - 1337**

**Stenij S. E.** - Vedenkorkeusarvoja 1931 ja 1932. Vattenståndsuppgifter 1931 och 1932 [*Dati de maris livello a. 1931 et 1932*]. 1 Abb., zahlr. Tab., Merentutkimuslaitoksen Julkaisu (Havsforskn. inst. skr.), 93, 1-88. Helsinki (1934). **a - 1338**

Ergebnisse der in den Jahren 1931 und 1932 an den Küsten Finnlands auf 16 Mareographenstationen und 20 Pegelstationen ausgeführten Wasserstandsbeobachtungen in Tabellen ausgedrückt mit erklärender finnischer und schwedischer Text. Wie in früheren Arbeiten dieser Art beziehen sich alle Angaben auf eine Referenzfläche, die 200 cm. unter einem berechneten Mittelwert um 1921. o liegt. Alle Beobachtungszeiten sind in Ost-Europäischer Zeit (Greenwich + 2 Stunden) angegeben.

**Teilhard de Chardin P.** - Observations sur les changements de niveau marin dans la région d'Obock [*Observationes de variationibus livelli marini in regione* Obock]. C. R. Soc. Géol. de France, 7 Nov., 180-181. Paris (1932). **a - 1339**

**Thorade H.** - Die Gezeitenwelle des Atlantischen Ozeans. Nach A. Defants Bearbeitung der « Meteor »-Beobachtungen [*De undis æstuosis in Oceano Atlantico. Studium peractum ab* A. Defant *ex elaborationibus observationum navi* « Meteor » *perfectarum*]. 1 Abb., 1 Taf. a. T., Ann. d. Hydrogr., LXII, 1, 1-7. Berlin (1934). **a - 1340**

1. Stand der Frage. Bedeutung des auf « Meteor » gewonnenen Materials ; 2. Die Strommessungen und ihre Bearbeitung : harmonische Analyse der Schiffskurse bei der Bearbeitung der Ankerstationen ; 3. Ergebnisse der Strombeobachtungen : grosse Verschiedenheit der Ströme in verschiedenen Tiefen ; die atlantischen Gezeiten als ein Gemisch von selbständigen und Mitschwingungsgezeiten, in welchen aber die letzteren überwiegen ; 4. Die inneren Gezeitenwellen.

**Toyohara Yoshikazu** - On the Tides and Seiches of Osahi-Bay [*De æstibus ac sessis in baja* Osahi]. Mem. Coll. Sc., A, 15, 203-214. Kyoto (1932). **a - 1341**

The mean sea level, the tidal constants and the seiches are discussed here on the basis of the tidal records of five years at Osahi.

**Vaughan Cornish** - Tidal Bores [*Undæ æstuosæ inter se controversæ*]. Geoph. Suppl. to Monthly Not. of R. Astron., III, 5. London (1933). **a - 1342**

The author describes observations made by him on tidal bores on the Severn and Trent. He urges the need of a co-operative study of the Trent bore, by a group of students equipped with tide-gauges, current meters and kinematographic cameras. (See : Letter to the Editor on the subject in : Nature CXXXIII, 3356, 295. London, 1934).

**Zeilon Nils** - Experiments on Boundary Tides [*Experimenta de æstibus limitatis*]. 4 pls., Gtbgs Kungl. Vetensk. o. Vitterh.-Samh. Handl. (Medd. Gtbgs Högsk. Oceanogr. Instit. 8), III, 10, 1-8. Göteborg (1934). **a - 1343**

Preliminary report on the experiments concerning submarine breakers (« shelf » experiments), « surface » or « wind » experiments, and « bottomcurrents », the results of which will be published in detail later on. Description of the apparatus used.

**Zhemerov Z.** - Niveau moyen de la Baltique près de Kronstadt et sa connection avec les repères fondamentaux du nivellement sur le Continent [*De livello medio maris Baltici propter* Kronstadt *eiusque connexione cum livellis Continentis*]. Zap. po Gidrogr., 1, 19-33. Leningrad (1933). **a - 1344**

**Zubov N. N.** - Elementary Treatise on Tides [*Tractatus elementaris de æstibus*] (In Russ.). maps, diagrs., 125 pp., Ghidro-Meteorol. Kom. S. S. S. R. & R. S. F. S. R., Moskva (1933). **a - 1345**

Series of lectures delivered in the Hydro-Meteorological Institute in Moscow. Fundamentals of the static theory of tides. The shortcomings of this theory. The dynamical theory of tides. The theory of seiches. Influence of the ice cover upon the elements of the tide. Principles of the harmonic analysis and tidal predictions. Cotidal world maps of Harris and of Sterneck. Tides in their influence upon the hydrological régime of the oceans. The economic significance of the tides as a source for hydroelectric power. Actual and possible interplay of tidal motions in their intimate association with the entire field of oceanographic research.

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**Bureau Hydrographique International** - General Repertory of Tidal Authorities and Tidal Records. Répertoire général des Services Marégraphiques et des Observations marégraphies [*Compendium generale munerum mareographicorum et observationum*] (Suite). 2 tabl., Rev. Hydrogr., XI, 1, 107-110. Monaco (1934). **a - 1346**

Informations (en anglais et français) sur l'organisation du Service des Marées et détails des enregistrements marégraphiques existants en Pologne (v. : « Rev. Hydr. », IX, 1, 58-101, 1932 ; IX, 2, 166-224, 1932 ; X, 1, 147-161, 1933).

**Bureau Hydrographique International** - Courants de marée [*Aestuum currentiæ*]. Rev. Hydrogr., XI, 2, 102-114. Monaco (1934). **a - 1347**

Résumé des réponses reçues par le Bureau à la lettre circulaire N° 2-4 de 1933 concernant les services des marées à travers le monde.

**Coast & Geodetic Survey** - Tide and Current Work [*De operibus circa æstus et currentias*]. Ann. Rep. Secr. of Comm. 1933, 119-121. U. S. Govmt. Print. Off. Washington (1933). **a - 1348**

Tide and current survey of New York Harbor. Tide gauges established. Pole and meter current observations, density and temperature observations. Standard disk bench marks established and recovered.

Oregon coast, Florida coast survey. Tide stations. Navy Department assistance.

**Coast & Geodetic Survey** - Tide and Current Surveys : Methods, Instruments and Purposes [*De æstuum et currentiarum observationibus. Methodus, instrumenta, proposita*]. Serial N. 280. Washington (1934). **a - 1349**

The present tasks of the tidal work ; Datum planes, bench marks, tide tables and tidal predictions, types of tides, tidal theories, accuracy of tide tables. Currents : types of currents, periodic ones of tidal origine, and non-periodic ones due to meteorological conditions. Other activities of the Coast & Geodetic Survey, as for instance the preparation of charts.

**Commission pour l'Etude des Raz de Marée** - Documents scientifiques inédits [*De ineditis documentis scientificis*]. 5 pl. h. t., 1 fig., Union Géod. & Géoph. Int., Comm. Raz Marée, 1, 27-75. Paris (1931). **a - 1350**

A) Liste par ordre chronologique, des envahissements du littoral par la mer, parvenus à la connaissance du Secrétariat; B) Renseignements dans l'ordre alphabétique des pays, sur les envahissements brusques du littoral: Grèce, Dahomey, Guadeloupe, Indochine, Italie, Madagascar, Martinique, Mauritanie, Nouvelle-Calédonie, Réunion, Saint-Pierre et Miquelon, Sénégal.

**Commission pour l'Etude des Raz de Marée** - Renseignements, dans l'ordre alphabétique des pays, sur les envahissements brusques du littoral par la mer, parvenus à la connaissance du Secrétairat [*Notitiæ, ex ordine alphabetico regionum dispositæ, circa inundationes repentinas in litora quæ ab Officio a secretis cognitæ fuerunt*]. nombr. fig. et tabl., Union Géod. & Géoph. Int., Ann. Comm. Raz de Marée, 2, 24-156. Paris (1932). **a - 1351**

Informations parvenues des pays suivants: Alaska, Annam, Australie, Cuba, Danemark, Etats-Unis, France, Grande-Bretagne, Hawaii, Inde, Martinique, Nouvelle-Guinée, Réunion, Saint-Domingue, Togo, Tunisie.

**Commission pour l'Etude des Raz de Marée** - Renseignements, dans l'ordre alphabétique des pays, sur les envahissements brusques du littoral par la mer, parvenus à la connaissance du Secrétariat [*Notitiæ, ex ordine alphabetico regionum dispositæ, circa inundationes repentinas in litora quæ ab Officio a secretis cognitæ fuerunt*]. 10 fig., 4 tabl. d. t., 4 pl. h. t., Union Géod. & Géoph. Int., Ann. Comm. Raz de Marée, 3, 42-76. Paris (1933). **a - 1352**

Information provenant du Chili, Cuba, Etats-Unis d'Amérique, France, Grande-Bretagne, Grèce, Hawaii, Italie, Japon, Madagascar, Nouvelle Calédonie, Réunion.

**Deutsche Seewarte** - Gezeitentafeln für das Jahr 1934 [*Tabulæ æstuum a. 1934*]. Deutsche Seewarte. Hamburg (1933). **a - 1353**

Die vorliegende Auflage besteht aus zwei verschiedenen Teilen: im ersten sind die europäischen, im zweiten-die aussereuropäischen Häfen beschrieben. Im ersten Teilen sind Voraussagungen für 25 europäische Hafen an gegeben, unter welchen zwei zum ersten mal in Betracht gekommen sind, und zwar: Aberdeen und Southampton. Voraussagungen für 32 aussereuropäischen Häfen sind im zweiten Teile veröffentlicht worden, welcher neue Voraussagungen für die Häfen von Dar-es-Salam und Yokohama enthält.

**Hydrographic Department** - Chinese Admiralty Tide Tables for the Year 1933 [*Aestuum tabulæ a. 1933 ad Prefecturam Classis Sinensis pertinentes*]. tabl., Chinese Navy, Shanghai (1933). **a - 1354**

En dehors des prédictions pour Side Saddle, Woosung et Shihpu Road, contenues aussi dans l'édition de 1932, dans la présente édition des prédictions ont été publiées aussi pour Tsingtao.

**Hydrographic Department** - Tide Tables for the Arctic and White Sea for the Year 1934 [*Aestuum tabulæ Maris Arctici et Maris Albi a. 1934*] (In Russ.). 11 tabl., Hydrogr. Dpt., Hydro-Meteor. Sect., 7-107. Leningrad (1933). **a - 1355**

Preface. Arctic: I. Times and heigths of high and low waters in Ekaterininskaya Harbour; II. Hourly heigths of sea-level in Ekaterininskaya Harbour; III. Corrections of times of the high and low waters in Ekaterininskaya Harbour for finding the times of the same waters according to the standard time in other points of the Arctic; IV. Heigths of the sea-level in several points of the Arctic corresponding to the given level-heigths in Ekaterininskaya Harbour; V. Corrections of sea-level at a given height of the barometer; VI. Direction and speed of tidal streams for some points on Mourman coast. Examples. White Sea: the above data for the region southward Sviatoi Nos, Kanin Nos, Kem (Popov Islands).

**Hydrographic Department** - Tide Tables for the Pacific 1934 [*Aestuum tabulæ Oceani Pacifici a. 1934*] (In Russ., Engl., Ind. & titles). 11 tabl., Hydr. Dpt. Hydro-Meteor. Sect., 5-63. Leningrad (1934). **a - 1356**

Préface. De-Castries Bay: Table I. Times and heights of high and low waters in the De-Castries Bay; Table II. Hourly heights of sea-level in the De-Castries Bay. Langr Island: Table I. Times and heights of high and low waters at the Langr Island; Table II. Hourly heights of sea-level at the Langr Island. Nagaeva Bay: Table I. Times and heights of high and low waters in the Nagaeva Bay. Table II. Hourly heights of sea-level in the Nagaeva Bay.

Table A. Corrections of times of high and low waters and coefficients of the tide in standard ports for finding the times of the same waters and heights of sea level in other points of the Pacific. Table B. The times of the moon's transit over the meridian of Greenwich 1934. Table C. Lunar intervals and amplitudes for the Matuga point. Table D. Lunar intervals and amplitudes for the Cape Astronomitscheskij. Examples.

**Hydrographic Office of Leningrad** - Tide Tables [*Aestuum tabulæ*] (In Russ. with titles & rés. in Engl.). Hydrogr. Off. Leningrad (1932). **a - 1357**

Tide Tables for the Arctic and White Seas for the year 1933. The volume gives times and heights of high and low water at Ekaterininskaja Harbour and Kem, and also hourly heights of sea level in the same localities.

**Hydrographic Service** - Annual Tide Tables of Bangkok Bar for 1933 [*Aestuum tabulæ annuae scopulorum* Bangkok]. tables, Bangkok (1932). **a - 1358**

En plus des prédictions d'heure en heure la présente publication contient des renseignements sur les signaux et sur le pilotage de l'entrée de la rivière.

**Hydrographic Service** - Bangkok Bar Tide Tables [*Tabulæ æstuum*]. Bangkok (1933-34). **a - 1359**

**Hydrographic Service** - Tide Tables [*Tabulæ æstuum*]. Tokyo (1933-34). **a - 1360**

**Japanese Hydrographic Department** - On the Tides in the Oita Harbour [*De æstibus in portu* Oita] (In Jap.). Suiro Yôhô (Hydrogr. Bull.), 12, 475-477. Tokyo (1933). **a - 1361**

The tides in the Oita Harbour in the western part of the Naikai were studied on hand of observations extending for 12 months. The values of monthly mean sea-level and harmonic constants of tides are calculated. The heights of high and low waters on the days of new and full moon, monthly maximum and minimum heights are tabulated. (See: S. Ogura. Abstr. 140, Jap. Journ. Astr. & Geoph. XI, 3, 43. Tokyo, 1934).

**Japanese Hydrographic Department** - Tidal Currents in the Yokohama Harbour [*De æstus currentiis in portu* Yokohama] (In Jap.). 15 pls., Jap. Hydr. Dpt., 1-21. Tokyo (1933). **a - 1362**

Results of tidal-current observations carried out in the Yokohama Harbour by the « Sea-Casualty Prevention Committee » for one month in the summer of 1932. From these data of observations the mean state of currents was obtained and 8 current charts prepared. The currents in the harbour are very weak, not greater than 0,8 knots even at the point of the maxi-

mum velocity, the entrance to the harbour, and the velocity and direction of current considerably differ from day to day. Such variations of currents cannot be related with the local wind, weather and so on. (See : S. Ogura. Abstr. 146, Jap. Journ. Astr. & Geoph., XI, 3. Tokyo, 1934).

**Marine Minister** - New Zealand Nautical Almanac and Tide Tables [*Almanachus nauticus æstuumque tabulæ Novæ Zelandiæ*]. Wellington, New Zeland (1933). **a - 1363**
31st edition of this important work, containing information concerning ports of New Zealand and supplementary information concerning the « New Zealand Pilot », 10th Ed. 1930.

**Ministerstwo Robot Publicznych. Panstwowa Sluzba Hydrograficzna w Polsce.** - Stacja Mareograficzna na Ploskiem Wybrzezu Baltyku w Gdyni [*Statio mareographica* Gdynia *in litoribus Polonis Maris Baltici*] (En pol., rés. franç.). 9 fig., 6 tabl., Min. Rob. Publ. 5-22. Warszawa (1932). **a - 1364**
Avant-propos. Description sommaire de la station maréographique. Repères du maréographe et leur nivellement.

**Servicio Hydrografico de la Republica Argentina** - Tablas de Marea para 1933 [*Aestuum tabulæ a. 1933*]. Buenos Aires (1933). **a - 1365**
Ce manuel présente sous une forme commode les renseignements concernant les prédictions de chacun des ports principaux de l'Argentine.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Current Tables. Pacific Coast. North America and Philippine Islands for the Year 1934 [*Currentiarum tabulæ. Litora oceani Pacifici. America Nordica. Insulæ Philippinæ a. 1934*]. 2 tabl., 2 diagr., U. S. Govmt. Print. Off. Coast. & Geod. Surv. Ser., n. 555, 7-119. Washington, D. C. (1933). **a - 1366**
Calendar. Preface. Table 1. Predicted currents. Table 2. Current differences and constant. Velocity of currents at any time. Duration of slack. Coastal tidal currents. Wind currents. The combination of currents. Current diagrams. Astronomical data. Publications by the Coast and Geodetic Survey relating to tides and currents.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Tide Tables. Pacific Ocean and Indian Ocean for the Year 1934 [*Aestuum tabulæ. Oceanus Pacificus et Oceanus Indianus a. 1934*]. 7 tabl., U. S. Govmt. Print. Off., Coast & Geod. Surv. Ser. n. 557, 263 pp. Washington D. C. (1933). **a - 1367**
The present volume contains full daily predictions for 96 reference ports and differences and constants for about 1,700 stations on the Pacific and Indian Oceans and tributary waters. It also contains a table for obtaining the height of the tide at any time, a table of local civil time of sunrise and sunset for every fifth day of the year for different latitudes, a table for the reduction of local civil time to standard time, a table of moonrise and moonset for 13 places, and a table of Greenwich civil time of the moon's phases, apogee, perigee, greatest north, south and zero declination, and the time of the solar equinoxes and solstices.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Tide Tables. Atlantic Ocean for the Year 1934 [*Aestuum tabulæ. Oceanus Atlanticus. a. 1934*]. 7 tabl., U. S. Govmt. Print. Off. Coast & Geod. Surv. Ser., n. 559, 283 pp. Washington, D. C. (1933). **a - 1368**
The present volume contains full daily predictions for 49 reference stations and differences and constants for about 2,200 stations on the Atlantic Ocean and tributary waters. 1. Predicted tides. 2. Tidal differences and constants. 3. Height of tide at any time. 4. Local civil time of sunrise and sunset. 5. Reduction of local civil time to standard time. 6. Moonrise and moonset. 7. Astronomical data.

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**An.** - Wasserstandshöhen an den 9 Pegeln des Preussischen Geodätischen Instituts im Jahre 1933 [*Aquæ livelli eorumque altitudines ex novem schalis Instituti Geodetici Borussici a. 1933*]. 2 Tab., Ann. d. Hydrogr., LXII, 11, 463-464. Berlin (1934). **a - 1369**
Ergebnisse der Auswertungen der 9 selbstschreibenden Pegel in 2 Tabellen zusammengefasst. Der Bezugshorizont ist bei den einzelnen Stationen der gleiche wie im Jahre 1932 (S. Ann. d. Hydrogr., S. 169, 1933).

**An.** - Observations of the Tides at Polar Stations [*De observationibus æstuum in stationibus polaribus*] (In Russ. & Engl.). Bull. Arct. Inst., 5, 222 & 254. Leningrad (1934). **a - 1370**
Brief account of observations on tides performed at 18 soviet polar stations in order to secure more material with the view of elaborating a cotidal chart of the Polar Sea.

**An.** - New Method of Inserting Information on Tidal Streams on British Admiralty Chart [*Methodus nova pro significatione æstuum maris in tabulis ad Britannicam Classis Præfecturam pertinentibus*]. Bull. Hydrogr. Int. 5, 94-95. Monaco (1933). **a - 1371**
Procedure to be employed in future to show tidal streams' information on all new British Admiralty Charts and new editions of charts, according to Notice to Mariners, nº 11/409, London, 18th March, 1933.

**An.** - Harmonic Constant Tide Calculator [*Apparatus ad æstus maris calculandos, constantum armonicarum auxilio*]. (In Engl. & French.). Bull. Hydrogr. Int., 6, 113. Monaco (1933). **a - 1372**
Information on the invention by Able Seaman J. Patterson of H. M. S. « Hood » of a new Harmonic Constant Tide Calculator.

**An.** - New Tidal Signal. France [*Aestuum significationes novæ*]. (In Engl. & French.). Bull. Hydr. Int., 5, 96-97. Monaco (1934). **a - 1373**
Description d'un nouveau type de signal de marée, dont l'établissement est annoncé dans l'Avis aux Navigateurs Français, nº 1538 de 1934.

**An.** - Liverpool Observatory and Tidal Institute. Annual Report 1933 [*Observatorium ac Institutum pro æstibus maris in* Liverpool. *Relatio annua a. 1933*] (In Engl. & French.). Int. Hydrogr. Bull., 4, 80-81. Monaco (1934). **a - 1374**
Indication concerning predictions and new tidal analysis prepared by the Tidal Institute. Construction of a new electrically operating tide-recorder designed by Dr. Doodson in collaboration with Chadburn's (Ship) Telegraph Co. Mention of publications issued by the Institute.

**An.** - L'Observatoire et Institut Maréographique de Liverpool (The Liverpool Observatory & Tidal Institute) [*Observatorium ac Institutum mareographicum in* Liverpool]. 2 fig., Rev. Hydrogr., XI, 1, 111-112. Monaco (1934). **a - 1375**
Organisation et activité du Tidal Institute de Liverpool. Description de la machine à prédire les marées de M. Roberts possédée par l'Institut et fonctionnant à plein rendement. (v. aussi : « Annual Report of the Liverpool Obs. & Tid. Inst. for the years 1929-1932).

## Undarum motus.

**Cornish Vaughan** - Ocean Waves and Kindred Geophysical Phenomena [*Undæ oceanicæ phænomenaque geophysica consentanea*]. 26 pls. xv + 164 pp. Univ. Press. Cambridge (1934). **a - 1376**

Study of all kinds of waves; those of the ocean; those of sand, of snow, of rivers, etc. This work is an attempt to find a scientific explanation of their formation and to give mathematic formulae expressing their power.

**De Haan P.** - Breakers in Smooth Water. Brisants en eau calme [*De undis in aquis placidis*] (En angl. & franç.). Bull. Hydrogr., Int., 1, 17. Monaco (1933). **a - 1377**

Extrait d'un travail publiè dans « De Zee », et « Den Helderc, novembre 1932, p. 636. Il résulte que le sillage provoqué par la proue du navire au nouveau cap se propage et, rencontrant l'ondulation de l'ancien sillage, brise sur cette dernière. Ce phénomène qui n'est pas généralement connu donnerait peut-être l'explication d'un grand nombre d'Avis aux Navigateurs qui constatent l'existence de brisants à des endroits, où l'on ne constate d'habitude rien d'extraordinaire.

**Fjeldstad Ekman Jonas** - Interne Wellen [*Undæ internæ*]. 11 Abb., 2 Tab., Geofys. Publ., X, 6, 1-35. Oslo (1933). **a - 1378**

Einleitende Bemerkungen über vorhergehende Untersuchungen. Wellen ohne Erdrotation. Interne Wellen in einem rotierenden Meere. Berechnung der internen Wellen. Numerische Integrationsmethode. Numerische Beispiele. Methoden zur Entdeckung interner Wellen. Literaturverzeichnis.

**Lettau Heinz** - Ausgewählte Probleme bei stehenden Wellen in Seen [*Problemata selecta pro undis stationariis in maribus*]. 4 Tab., Ann. d. Hydrogr., LXII, 13-20. Berlin (1934). **a - 1379**

In der vorliegenden Arbeit sind folgende Probleme berührt worden: I. Anregung von stehenden Wellen in Seen durch nichtperiodische Kräfte. II. Einwirkungsmöglichkeit von Seichesströmungen auf Ufer und Tiefenverhältnisse. III. Abänderung der Dauer der freien Eigenschwingungen bei stattfindender Tiefenbeeinflussung. IV. Turbulenzreibung in Seen.

**Majo Ester** - L'altezza delle onde del mare e la velocità del vento nel golfo di Napoli [*De undarum altitudine et venti celeritate in Sinu Neapolitano*]. Boll. della Soc. dei Nat., XLV, 295-307. Napoli (1933). **a - 1380**

Dalle osservazioni dello stato del mare, della direzione e della velocità del vento dal 1922 al 1927 si ricavano le frequenze mensili dello stato del mare in corrispondenza della velocità e della direzione del vento. Si determina l'andamento annuo del vento e la frequenza degli stati del mare. Da misure dirette di altezza delle onde, in corrispondenza dei vari stati, si determina una relazione pratica in funzione della velocità del vento.

**Montagne Robert** - Peut-on prédire la houle en Afrique sur les côtes de l'Atlantique ? [*Num tempestates propter litora Atlantica Africana prædici possunt ?*]. Union Géod. & Géoph. Int., Ann. Comm. Raz de Marée, 2, 15-23. Paris (1932). **a - 1381**

L'extrème violence des mouvements de houle inattendus et fréquents apparaissant sur les côtes du Maroc et de la Mauritanie. Nécessité de la construction de ports créés au moyen de longues et puissantes jetées pour assurer le déchargement et le chargement ininterrompus des navires. Origine de la houle liée au déplacement des grands systèmes dépressionnaires de l'Atlantique nord qui viennent aborder sur les côtes de l'Europe occidentale entre l'Ecosse et le Portugal. Organisation des observations pour les cartes isobariques de l'Atlantique et observations spéciales du phénomène de la houle. Possibilité de l'organisation à l'aide de la radio-télégraphie d'un service de renseignement et de prévision sur la houle sur les côtes de l'Atlantique.

**Nomura S.** - Secondary Undulations in the Bay of Muroran and the Gulf of Hunkawan, Hokkaido, Japan [*Undulationes secundariæ in baja* Muroran *ac Sinu* Hunkawan Hokkaido *in Japonia*] (In Jap.). Umi to Sora, 13, 120-123 (?) (1933). **a - 1382**

By examination of the record of a Kelvin tide gauge installed at the Harbour Work Office, Muroran, the author noticed the frequent occurrences of the secondary undulations in the Bay of Muroran and the Gulf of Hunkawan. In the present paper he gives the description and the calculation of the ondulation. (See : Abstract by T. Okada, Jap. Journ. Astr. & Geoph., XI, 3, abstr. 149, 46. Tokyo, 1934).

**Williams C. H.** - Notes on Sea and Swell Observation [*Mare undosum. Observationes*]. 3 figs., Mar. Obs., XI, 115, 105-108. London (1934). **a - 1383**

Paper of practical character on waves' dimensions, speed, period. General observation. Methods of measuring seas and swells. Results of experiments.

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**Landesanstalt fuer Gewaesserkunde und Hauptnivellements** (im Auftrage des Preussischen Landwirtschaftsministerium bearbeitet in der...) - Die nordfriesischen Inseln vor und nach der Sturmflut vom 11. Oktober 1634 [*Insulæ Frisicæ consideratæ ante et post tempestatem die 11 Octobris 1634*]. 4 Karten, 95 S., E. S. Mittler & Sohn. Berlin (1934). **a - 1384**

In dem vorliegenden Buche werden aus dem grossen Werke von F. Müller « Das Wasserwesen an der schleswig-holsteinischen Nordseeküste » jene Teile zugänglich gemacht, welche mit der grossen Sturmflut vom 11. Oktober 1634 im Zusammenhang stehen. Nach allgemeinen Betrachtungen über die Methode des damals üblichen Deichbaus wird die Gestalt der Inseln Alt-Nordstrand, Amrum, Föhr und Sylt unter eingehender Benutzung zeitgenossischer Quellen eingehend dargelegt, sowie der Verlauf der grossen Sturmflut und der Zustand der Inseln nach der Flut.

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**An.** - Sea Waves in the Laboratory [*Undæ marinæ ad experientias ducendas in laboratorio excitatæ*]. Science, LXXVIII, 2014. 9. New York (1933). **a - 1385**

Short note. Prof. Kenneth Reynolds hopes to be able to tell how to design sea-walls that will hold real storm waves in a bay, with storms created in a miniature ocean contained in a concrete tank.

## Hydrodynamica theorica.

**Asfazadour Armen** - Sur les lignes de courant autour d'une plaque en rotation, placée dans un courant fluide [*De lineis circum laminam rotantem positam in currentia quadam fluida*]. 3 fig., C. R. Acad. Sc., CIIC, 3, 245-247. Paris (1934). **a - 1386**

Les recherches de M. Riabouchinsky sur l'autorotation des girouettes ont amené l'auteur à construire effectivement les lignes de courant autour d'un plan mince, avec et sans circulation, dans un courant fluide. Etude analytique des phénomènes moyennant l'expression du potentiel complexe.

**Bjerknes V., Bjerknes J., Solberg H. & Bergeron T.** - Hydrodynamique physique : avec applications à la météorologie dynamique. (Recueil des Conférences-Rapports de documentation sur la physique. Vol. 23) [*De hydrodynamica physica, cum applicationibus ad meteorologiam dynamicam*]. Vol.

I, II & III, Les Presses Universitaires de France. Paris (1934).

(—) Voir : Bibl. Océanogr. 1933, p. 155 : a - 1983. **a - 1387**

**Blumberg O.** - Zur rationellen Organisation der methodologischen hydrometrischen Untersuchungen [*De inquisitionibus hydrometricis methodologicis earumque ratione*] (In russ., dtsch. Rés.). 1 Tab., Mém. Inst. Hydrol., XI, 10-19. Léningrad (1933). **a - 1388**

Nach der Behauptung, dass die wissenschaftliche Behandlung der hydrometrischen Fragen ein Uebereinkommen des theoretischen und praktischen Gesichtspunktes fordert, beschreibt der Vf. die Methodologischen Stationen, d. h. Laboratorien in natürlichen Verhältnissen, welche ein natürliches Objekt untersuchen. Er gibt ausserdem eine kurze Uebersicht der experimentellen Untersuchung zur Prüfung der Frage der Präzision der Wassermengebestimmungen.

**Drisko John B.** - Wave-motion in a Channel [*De motu undoso in canali*]. 4 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933. Washington, D. C. (1933). **a - 1389**

An account of the investigation on power- or increment-waves and tidal-waves made at the Massachusetts Institute of Technology and experimental work carried on in a small channel 41.5 feet long 15 inches deep, and having a mean width of 5 inches.

**Ertel H.** (A Review by K. Hidaka) - Eine neue Methode zur Berechnung der Eigenschwingungen von Wassermassen in Seen unregelmässiger Gestalt [*De nova ratione ad calculum persolvendum fluctuationum aquæ in maribus forma inæquali*]. Journ. Oceanogr., VI, 2, 289-292. Kobe (1934). **a - 1390**

**Gandgadharan G.** - Neuer Geschwindigkeitsmesser für turbulente Strömungen [*Apparatus novus ad velocitatem currentiarum turbulentarum mensurandam*]. 4 Abb., Mém. Hydrol. Inst. Tech. Hochsch., 4, München. (In russ.) Mém. Inst. Hydrol., XI, 227-229. Léningrad (1933). **a - 1391**

Beschreibung eines neuen Geschwindigkeitsmessers, welchem vom Erfinder der Nahme « Hitzdrahthydrometer » gegeben wurde.

**Hachey H. B.** - Hydrodynamics of Waters of Scotian Shelf [*De hydrodynamica aquarum plateæ Novæ Scotiæ*]. Ann. Rep. Biol. Board Canada, 1933, 20. Ottawa (1934). **a - 1392**

Results of modern hydrodynamical treatment of data obtained in the water area on the south coast of Nova Scotia in 1932.

**Judis Heinz** - Was lehren uns schnellschwimmende Hochseetiere für die Fortbewegung von Booten und Schiffen ? [*Quæ nos docent animalia marina celeriter natantia quoad motum navicularum et navium*]. 3 Abb., Naturwiss. 3, XXII, 19, 303-304. Berlin (1934). **a - 1393**

Bericht über die vom Vf. mit einem von ihm erfundenen Mechanismus sowie mit Paddelboot und einem längs verschiebbaren Seitenbordmotor ausgeführten Versuche. Es wird gezeigt, dass Paddelbetrieb eine starke Bugwelle hervorruft, während bei Flossenbetrieb fast keine Wellenbildung vorhanden ist.

**Kaufmann Walther** - Angewandte Hydromechanik [*De hydrodynamica applicata*]. vii + 293 pp., Band 2 : Ausgewählte Kapitel aus der technischen Strömungslehre. Julius Springer. Berlin (1934). **a - 1394**

**Kitagawa Kingoro** - Sur la propagation des ondes de dilatation dans la mer [*De propagatione undarum dilatationis*]. Mem. Coll. Sc., A, 15, 327-340. Kyoto (1932). **a - 1395**

L'A. établit l'équation du mouvement de l'onde sonore, cherche la solution générale de cette équation par la méthode des séries et arrive à l'étude du trajet de la propagation d'une onde sonore. Formule relative au sondage sonore.

**Leighly John** - Turbulence and the Transportation of Rock Débris by Streams [*Agitur de turbulentia ac subvectione detritorum saxeorum per flumina*]. 6 figs., 1 table, Geogr. Rev., XXIV, 3, 453-464. New York (1934). **a - 1396**

In the present statement and a recent paper published elsewhere (J. B. Leighly ; « Toward a Theory of the Morphologic Significance of Turbulence in the Flow of Water in Streams » Univ. of Calif. Publ. in Geogr., VI, 1, 1-2, 1932, Berkeley) the author makes an attempt toward the formulation of a theory of the morphologic activity of streams, with special regard to the simple action of gravity on the regolith that forms the surfaces of slopes. He considers the distribution of turbulence in stream cross sections, the relation between turbulence and turbidity and the diffusion of suspended matter as phase of transportation.

**Matuzawa T.** - Comparison of Movement of Water in a V-shaped Bay with that in a U-shaped Bay [*Comparatio motus aquarum in baja instar V cum motu aquarum in baja instar U*]. 3 figs., Jap. Journ. Astr. & Geoph., XI, 2, 67-70. Tokyo (1934). **a - 1397**

Experience has taught that in case of tunamis movement of water is more violently developed in a V-shaped bay opening direct on the Ocean than in bays of other type. The author explains the fact analytically.

**Mezheraup N. M.** - Die Variationen der Geschwindigkeit in der Nähe von Messpunkten [*De velocitatis variationibus apud puncta in quibus mensurae fiunt*] (In russ., dtsch. Rés.). 8 Abb., 5 Tab., Mém. Inst. Hydrol., XI, 19-34. Leningrad (1933). **a - 1398**

Resultate von Untersuchungen zur Ermittlung der Fehler, die infolge ungenauer Koordination des Messpunktes entstehen. Experimentelle Bestimmung der Geschwindigkeitsvariationen nach zwei Parametern (Breite und Länge des Gerinnes). Unstete Veränderlichkeit der Geschwindigkeiten in der Breite des Wasserlaufes. Ihre Rolle bei der Bestimmung von Wassermengen.

**Nomitsu Takaharu** - A Theory of the Rising Stage of Drift Current in Ocean. I. The Case of No Bottom-Current [*Theoria distributionis in altitudinem currentiæ oceanicæ raptoriæ. I. Nihil currentiæ fundi marini*]. 2 figs., Mem. Coll. Sc., A, 8, 161-175. Kyoto (1933). **a - 1399**

Fjeldstad's solution of the rising stage of drift current in a sea of finite depth is too laborious and inconvenient for practical use. The present author has been able to solve the same problem in a way that is exceedingly easy and very rich in physical meaning and also very convenient for numerical calculation, as he exemplifies with several ocean depths D/10, D/4, D/2, D, and 2D, where D means the so-called « Reibungstiefe ». According to the results, when a constant wind begins to blow over a boundless sea, the current produced may be taken to reach a steady state in time, as shown below.

| Depth of the sea . . . | D/10 | D/4 | D/2 | D | 2D |
|---|---|---|---|---|---|
| Time in pendulum hours | 1 | 6 | 18 | 48 | 120 |

In the course of his discussion, the writer obtains also the formula for the decay of the steady current when the wind suddenly stops, and shows that the subtraction of this decaying current from Ekma's steady value furnishes the developing stage of current required. (Author).

**Nomitsu Takaharu** - On the Development of the Slope Current and the Barometric Current in the Ocean. I. The Case of No Bottom-Current [*De progressibus currentiæ in clivum et currentiæ barometricæ in Oceano. I. Nihil currentiæ fundi marini*]. 2 figs., Mem. Coll. Sc., A, 8, 203-214. Kyoto (1933). **a - 1400**

The writer deals first with the development of a slope current theoretically and shows that the current will oscillate asymptotically around a steady value with a period of 12 pendulum hours and that the time required for it to become steady is substantially equal to that for the drift current.

The « barometric current » produced by a local difference in atmospheric pressure is next discussed, and it is emphasized that this may have in reality much more importance than is usually considered. (Author).

**O'Brien Morrough P.** - Review of the Theory of Turbulent Flow and Its Relation to Sediment-Transportation [*De reinspecta theoria currentiæ turbulentæ eiusque correlatione cum subvectione sedimentorum*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 487-491. Washington, D. C. (1933). **a - 1401**

The present paper is a review of the theory of turbulent flow developed by Osborn Reynolds, Prandtl, von Karman, and Taylor, and of its application to the distribution of suspended material by Schmidt and others.

**Okada M. & Miyosi K.** - Experimental Studies of the Water Movement in Coastal Regions of the Sea. I. Tidal Oscillations in Sagami Bay [*Studia ad experimentum ducta motus aquarum in regionibus litoreis marinis. I. Oscillationes æstuum in baja* Sagami]. 8 figs., 1 table, 15 pl., Journ. Imp. Fish. Inst., XXIX, 1, 15-28. Tokyo (1933). **a - 1402**

In the present paper a method of experimental studies of the periodic oscillation of water modelled after the semidiurnal tidal motion in Sagami Bay and its vicinity is described. Some qualitative results are also given.

**Quarleri Angelo** - Sulla teoria della « scia » nei liquidi perfetti. Risoluzione del problema nel caso del cilindro rotondo [*De « rima ». Quæstio de eius theoria in liquidis perfectis. Casus cylindri rotundi et solutio*]. 5 fig., Rend. Circ. Mat. di Palermo, LVII, 2, 196-209. Palermo (1933). **a - 1403**

Premessi brevi richiami della teoria, l'A. esamina l'impostazione generale del problema dovuta al Levi-Civita, per passare poi a studiare il caso particolare del cilindro, giungendo all'equazione.

$$T(\sigma) + \frac{a^2}{\pi} \int_0^{\frac{\pi}{2}} e^{T(\sigma_1)} \sin \sigma_1 (1 + \sin \sigma_1) \log \left[\frac{\sin \sigma_1 + \sin \sigma}{\sin \sigma_1 - \sin \sigma}\right]^2 d\sigma_1 = 0 \tag{1}$$

che ha la forma tipica delle equazioni integrali non lineari studiate da A. Hammerstein .Esposto poi brevemente la ricerca di questi, l'A. risolve l'equazione (1).

**Reynolds Kenneth C.** - Investigation of Wave-Action on Sea-Walls by the Use of Models [*Investigationes in undarum actionem in oras maritimas modulorum auxilio*]. 3 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Nat. Meet., Apr. 27-29, 1933, 512-516. Washington D. C. (1933). **a - 1404**

After having emphasized the damages, which battering seas, high tides, storm-driven, on-shore winds always cause along the sea-coasts and particularly at many beach communities, the author indicates the characteristics of an ideal sea-wall and illustrates the purpose of model-studies, which is to put in evidence the advantages and the disadvantages of different types of walls. He gives then the description of apparatuses used in his investigation, and an account of preliminary studies carried out in order to ascertain if the waves as generated were of correctly simulating nature. He indicates the scope of the tests and communicates their results on a vertical sea-wall.

**Rossby C. G.** - Studies of the Stress Exerted by the Wind as a Propulsive Force on the Surface of the Sea, and of the Evaporation from the Latter [*Sollicitatio, venti causa, ac vis propulsionis in superficiem marinam et evaporationem*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 34. Woods Hole, Mass. (1933). **a - 1405**

Brief summary of the calculation of the tangential stress of the wind along the ocean surface and of regular evaporation measurements carried out on board the » Albatross II » and the « Atlantis ».

**Rossby C. G.** - Investigations in Meteorology and Physical Oceanography [*Inquisitiones meteorologicae et physico-oceanographicae*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 45-46. Woods Hole, Mass. (1933). **a - 1406**

Summary of the results of a theoretical study of atmospheric and oceanic turbulence and of ten months' evaporation records from the Nantucket Lightship and from the « Atlantis ».

**Rossby C. G.** - Investigations in Meteorology and Physical Oceanography [*Inquisitiones meteorologicæ et physico-oceanographicæ*]. Woods Hole Oceanogr. Instit., Rep. 1933, 30-31. Woods Hole. Mass. (1934). **a - 1407**

Continuation of the theoretical investigation of the homogeneous surface layer of the ocean ; effect of converging and diverging flow on its thickness ; development of the baro-thermograph for accurate recording of the vertical temperature distribution whithin the surface layer (0-200 m.) ; completion of the routine evaluation and tabulation of all evaporation measurements made on board the « Atlantis ».

**Rubey W. W.** - Equilibrium-Conditions in Débris-Laden Streams [*Aequilibrium in currentiis detrita trahentibus*]. 1 fig., 1 table. Nat. Res. Counc., Trans., Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 497-505. Washington, D. C. (1933). **a - 1408**

In this paper the author gives a theory which may eventually lead to a general expression of stream-equilibrium, i. e. to express the quantitative effect of the various factors that influence the slope of graded streams, with especial reference to Gilbert's ideas that, either by cutting their beds or by building them up with sediment, streams always tend to make for themselves channels and slopes that, over a period of years, will transport exactly the load of sediment delivered into them from above. This work of streams is highly important in several fields of ecology ; they remove rock-débris from the sites of weathering and transport it to flood-plains, lakes, and oceans, where it is deposited to form new rocks. The author gives a derivation of a general equation for the equilibrium of graded streams and studies its general validity.

**Satkevitsch A. A.** - Analyse générale des mouvements tourbillonnaires [*Motus vorticosi eorumque analysis generalis*] (En russe, rés. franç.). Mém. Inst. Hydrol., IX, 1-16. Léningrad (1933). **a - 1409**

Rapport lu dans la séance du 11 janvier 1933 de la Section hydraulique et mathématique de l'Institut Hydrologique de l'U. R. S. S. Importance de l'application des coordonnées naturelles, ayant la direction de la vitesse, du tourbillon et de leur normale commune pour chaque point du courant, à l'étude des courants tourbillonnaires. Position relative des vecteurs de la vitesse et du tourbillon, comme critérium pour la classification typique des courants. Construction de la méthode d'analyse dynamique du courant : « méthode des deux vecteurs-forces A et B ».

**Satkevitsch A. A.** - Remarques méthodiques sur la théorie des mouvements discontinus de Kirchhoff [*Observationes per methodum theoriae motuum discontinuorum secundum* Kirchhoff]. 4 fig., 1 tabl., Mém. Inst. Hydrol., IX, 17-26. Léningrad (1933). **a - 1410**

Observations qui permettent d'appliquer la théorie de Kirchhoff non seulement aux lignes de contour du courant, mais aussi à ses points intérieurs. Ces observations sont illustrées moyennant leur application au problème classique du mouvement d'un liquide dans un espace de deux dimensions contre un obstacle plan, normal au courant, autour duquel ce dernier se divise en deux parties symétriques.

**Schlichting H.** - Neuere Untersuchungen über die Turbulenzentstehung. (Aus den Forschungen der Kaiser Wilhelm-Gesellschaft zur Förderung der Wissenschaften) [*Inquisitiones novæ de origine turbulentiæ*]. 5 Abb., Naturwiss., XXII, 22-24, 376-381. Berlin (1934). **a - 1411**

Unter Hinweisung auf Untersuchungen von v. Rayleigh, Prandtl, Tollmien, Tietjens u. a. behandelt der Vf. die Frage: Unter welchen Bedingungen entsteht Turbulenz? und schliesst folgendes: Es zeigt sich also auch hier wieder, dass die Methode der kleinen Schwingungen durchaus brauchbare Ergebnisse liefert, wenn man nur die physikalisch wichtigen Grössen Profilkrümmung und Zähigkeit in richtiger Weise berücksichtigt. Obwohl auf diesem Gebiete noch manche Einzelheit zu erledigen ist, so kann man heute doch schon sagen, dass in Prinzip die Instabilität der Laminarströmung gegen kleine Störungen und damit die Entstehung der Turbulenz aufgeklärt ist.

**Sverdrup H. U.** - Dynamic of Tides on North Siberian Shelf (Results from the « Maud » Expedition) [*Aestuum dynamica in platea Siberiæ nordicæ. (Resultatus ex navigatione navis* « Maud »)] (In Jap.). Journ. Oceanogr., VI, 1, 143-170. Kobe (Japan) (1934). **a - 1412**

A review by T. Kubo of the paper published in Geofys. Publ., IV, 1924.

**Vogel Herbert D.** - Movable Bed-models [*Moduli mobiles alveorum fluminum et portuum*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 509-512. Washington, D. C. (1933). **a - 1413**

Hydraulic models for the solution of problems relating to the improvement of rivers and harbours may be grouped into two general classes distinguished from each other by the character of the bed employed. The purpose of this article is to present a brief but comprehensive outline of the methods of design and utilization of movable bed-models, and to describe their particular fields of usefulness.

**Woskressenskij S. W.** - Das Wesen und die weiteren Entwicklungslinien der Hydrometrie [*De Hydrometria eiusque progressibus*]. (In russ., dtsch. Rés.). Mém. Inst. Hydrol., XI, 5-9. Léningrad (1933). **a - 1414**

In der neuen Anschauung ist die Hydrometrie als quantitativer Teil der Hydrologie betrachtet, der sich mit der momentanen und dauernden, zeitlichen und räumlichen Koordination der Wasserelemente, der Bestimmung ihrer Kasualität, den Aggregat-Uebergängen, den Messungsmethoden und dem Aufstellen entsprechender Charakteristika des Wassers bei verschiedenen dynamischen Vorgängen, deren analyse und Synthese befasst. Die hydrometrischen Arbeiten in der U. d. S. S. R. verfolgen in erster Linie volkswirtschaftliche Zwecke. Die weitere Entwicklung der Hydrometrie beruht auf einem komplexen Erforschen aller Wasserobjekte, auf Massenbeobachtungen und experimentellen Arbeiten spezieller methodologischer Prüfungsanstalten und Laboratorien und auf theoretischen Untersuchungen.

**Woskressensky S. V.** - Ueber die Tätigkeit des Hydrometrischen Büros [*De Officio Hydrometrico eiusque activitate*] (In russ. dtsch. Rés.). 1 Tab., Mém. Inst. Hydrol., XI, 188, 196. Léningrad (1933). **a - 1415**

Fortschritte der Arbeiten des Büros im Gebiete der theoretischen und experimentellen Hydrologie. Richtlinien der nächsten Entwicklung seiner Arbeit.

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**Z. V. D. I.** - Nouveaux résultats des recherches sur la turbulence [*Resultatus ex novis inquisitionibus de turbulentia*]. Ann. Trav., Publ. de Belgique, XXXV, 2ª sér., 1, 135-140. Paris (1934). **a - 1416**

Extrait d'un travail de L. Prandtl dans Neuere Ergebnisse der Turbulenzforschung. Résultats obtenus pour les conduites et appliqués au calcul des résistances exercées sur des plaques. Propriétés des écoulements dans des canaux convergents, divergents et courbes, des phénomènes de mélange de jets liquides avec leur entourage et des mouvements qui se produisent derrière les corps mobiles. L'auteur communique des relations nouvellement découvertes entre les échanges de vitesse turbulents et les échanges de chaleur.

# GEOPHYSICA.

## Meteorologia.

**Abercromby Ralph** - Weather: the Nature of Weather Changes from Day to Day. New Edition revised and largely rewritten by A. H. R. Goldie [*Natura variationum atmosphæricarum in dies*]. num. ills., 8 pls., xii + 284 pp., Kegan Paul & Co. Ltd. London (1934). **a - 1417**

Enlarged edition fully illustrated. Many examples of weather described with help of charts and diagrams. Last theories on cyclones given and discussed.

**Abetti Giorgio** - Le ricerche sulle relazioni fra fenomeni solari e terrestri [*Inquisitiones de correlationibus inter phænomena solaria et terrestria*]. Ricerca Scient., I, 1, 3-12. Roma (1933). **a - 1418**

Si espone lo stato presente delle ricerche sulle relazioni fra fenomeni solari e terrestri per le quali è stata nominata nel 1924 una Commissione Internazionale dal Consiglio Internazionale delle Unioni Scientifiche. Premessi quali siano i fenomeni terrestri che dipendono dal Sole, si dimostra che il modo di propagazione dell'influenza solare deve accadere per mezzo di fasci di corpuscoli emanati da fuochi ben determinati nelle regioni solari perturbate. Le osservazioni fatte in diverse stazioni sparse in tutto il globo sono raccolte in un bollettino internazionale pubblicato a Zurigo sotto gli auspici dell'Unione Astronomica internazionale. Tre rapporti sono stati editi dalla Commissione dal 1924 a tutt'oggi i quali trattano delle più importanti ricerche e risultati ottenuti nella fisica solare, nel magnetismo terrestre, nelle comunicazioni radio-telegrafiche e nella meteorologia terrestre, sempre in relazione alla dipendenza dei fenomeni terrestri da quelli solari.

**Alfani Guido** - Venticinque anni di valori pentadici. Parte I: Barometro e Termometro [*De valoribus pentadicis vigintiquinque annos calculatis. Pars Ia : Barometrum et Thermometrum*] (Pubblicazioni dell'Osservatorio Ximeniano dei Padri Scolopi, Firenze, N. 144), 5 grafici, 73 pp. (testo litografato). Firenze (1932). **a - 1419**

Ciascuna pagina contiene tutte le medie d'una sola pentade ottenute durante 25 anni d'osservazione. Nel basso di ciascuna pagina sono riportate le medie parziali e generali. L'ultima linea rappresenta il valore medio di 5 anni d'osservazione.

**Aliverti G.** - Sul metodo dell'effluvio per misure di radioattività atmosferica [*De utenda methodu effluvii ad radioactivitatem atmosphœricam mensurandam*]. 5 ills., Atti R. Acc. delle Sc. di Torino, LXVII, disp. 14a, 15a, 376-385. Torino (1931-1932). **a - 1420**

Viene assoggettato ad uno studio più approfondito il metodo dell'effluvio, ideato lo scorso anno dall'A. per misure della radioattività atmosferica. Si dimostra quali siano le condizioni di maggiore efficienza dell'apparecchio e vengono esposti i risultati di diverse esperienze che confermano i vantaggi pratici del metodo e la completa attendibilità delle determinazioni che si possono effettuare con tale dispositivo.

**Amerio Alessandro** - Un registratore della radiazione solare [*Index radiationum solarium*]. 1 ills., 1 tav. f. t., Rend. R. Istit. Lombardo Sc. e Lett., LXV, 11/15, 596-600. Milano (1932). **a - 1421**

Descrizione dell'apparecchio, e breve cenno sugli accorgimenti adottati affinchè le misure fornite da detto apparecchio siano le più precise.

**Ångström A.** - Bericth über Ausstrahlungsmessungen [*Relatio de mensuris radiationis atmosphœricœ*]. Secr. Organ. Meteorol. Int., 15, 1-12. Utrecht (1933). **a - 1422**

Empfehlung des Kompensationspyrgeometers bei Ausstrahlungsmessungen unter der Voraussetzung, dass gewisse Vorsichtsmassregeln beobachtet werden. Einwendung dagegen und Verteidigung.

**Ångström A.** - Ueber die Trübung der Atmosphäre [*Obscuratio atmosphœrœ*]. Secr. Organ. Meteorol. Int., 15, Anl. 9, 1-2. Utrecht (1933). **a - 1423**

Unter Hinweisung auf zwei vorhergehende Arbeiten (On atmospheric transmission of sun radiation. Geogr. Ann. I, II, 2, 2-3, 1929, 1930) weist der Vf. hier auf den Potsdamer Standardfilter hin, um die aktinometrischen Messungen möglichst gut ausnützen zu können. Er betont aber, dass die aktinometrischen Messungen nur eine synoptische Vorstellung von der Trübung und dem Wassergehalt geben und dass man für exaktere Werte in Bezug auf die Strahlenschwächung sich anderer sehr verfeinerten Methoden bedienen müsse.

**Antonov V. P.** - Klimat i kurorty injnogo berega Kryma [*De climate et variationibus climaticis litoris meridionalis in Crimea*] (Rés. angl. et tatare). 31 fig., 88 pp., Mus. Geogr. locale. Ialta (1932). **a - 1424**

**Armellini G. & Andrissi G.** - La radiazione del Sole nel 1931 e nel 1932 [*De Solis radiatione a. 1931 et a. 1932*] Atti R. Acc. Naz. Lincei - Rend. Cl. Sc. Fis., Mat. e Nat., XVII, 8, 605-610. Roma (1933). **a - 1425**

In continuazione di un precedente lavoro, gli AA. espongono le misure sopra la radiazione del Sole, da loro eseguite al Campidoglio nel biennio 1931-32. Le misure vengono poi ridotte alla distanza media del Sole dalla Terra, ed in una tabella sono esposti i valori medi mensili dedotti dalle osservazioni degli ultimi quattro anni, sia per la radiazione solare integrale, sia per la radiazione filtrata, con filtri di luce di vario colore. Dalla tabella, con alcuni calcoli, viene poi dedotto il valore, *medio annuo*, sull'assorbimento che l'atmosfera esercita sopra la radiazione solare ed il risultato è assai vicino a quello da loro trovato, altra volta, con osservazioni fotometriche di stelle.

**Ballard J. C.** - Report on Sounding-balloon Work Carried Out in the United States During the Polar Year [*Relatio de observationibus peractis äerosphœricorum auxilio in Americœ Provincis Foederatis perdurante anno polari*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 104-105. Washington D. C. (1934). **a - 1426**

Short preliminary study of the United States Polar Year aerological data computed and tabulated as prescribed by the International Commission for the Exploration of the Upper Air, with especial reference to a number of features which heretofore have been untouched. Account of a number of interesting results found.

**Baschin O.** - Das Nordlicht-Observatorium in Tromsö [*De observatorio aurorœ borealis in* Tromsö]. Naturwiss., XXII, 4, 64. Berlin (1934). **a - 1427**

Kurze Notiz: Leitung, Entstehung, Arbeitsprogramm. (S. Publ. Norske Inst. kosm. Fys., 1, 1932. Bergen).

**Baumann Gerhard Heinz** - Grönland-Flug von Gronau 1931 [*De aëronavigatione in Groënlandiam a* Gronau *peracta a. 1931*]. 1 Taf., Aus. d. Arch. d. Dtsch. Seewarte, LII, 4, 33-48. Hamburg (1933). **a - 1428**

Bericht der während des Sommers 1931 gemachten Beobachtungen in Bezug auf Luftdruck, Winde, Nebel, Wassertemperatur, Eisverhältnisse für die folgenden Abschnitte: List a. Sylt-Faröer, Faröer-Island, Reykjavik-Scoresbysund, Scoresbysund-Godthaab, Erkundungsflüge Godthaab-Ivigtut am 18.8. und Ivigtut bis Godthaab am 19.8, Grönland-Hudsonbay, Port Harrison-Long Lake, Long Lake-Chicago.

**Becker Richard** - Das Flugklima Grönlands (Beiträge zur Meteorologie des Luftweges über Grönland) [*De climate ac aëronavigatione in Groënlandiam*]. zahlr. Tab., 6 Taf. a. T., Aus. d. Arch. d. Dtsch. Seewarte, LII, 4, 2-32. Hamburg (1933). **a - 1429**

Der Hauptzweck dieser Untersuchungen ist es, den klimatischen Unterschied zwischen Küste und Inland zu studieren in Anbetracht seiner Bedeutung für die Flugmöglichkeiten. Das Flugklima von Grönland: a. Topographische und orographische Grundlagen. b. Die Elemente des Flugklimas: Sicht, Bewölkung, Vereisungsgefahr, Wind, Temperatur.

**Belov A. I.** - Expériences d'étude de la stratosphère dans l'Arctique à l'aide de la méthode des sondages sonores [*Experimenta ad studendam stratosphœram in regionibus arcticis, scandaliorum sonororum auxilio*] (En russe). Bull. Arct. Inst., 6/7, 165-167. Leningrad (1933). **a - 1430**

Considérations générales sur l'application de la méthode des sondages sonores dans la région arctique basées sur les données contenues dans la communication préliminaire sur les « Recherches sur la propagation des ondes sonores dans la région polaire » (Untersuchungen über die Ausbreitung von Schallwellen im Polargebiet) de K. Wölcken, publiée dans le même no du « Bull. Arct. Inst. », pp. 204-207. Quelques résultats des sondages exécutés.

**Birkeland B. J.** - Aeltere meteorologische Beobachtungen in Ullensvang. Luftdruck und Temperatur seit 100 Jahren [*Observationes meteorologicœ in* Ullensvang. *Agitur de pressione atmosphœrica deque temperatura a 100 annis in hodiernum*].

Tab. i. T. u. 20 Tab. a. T., Geofys. Publ., IX, 6, 3-40. Oslo (1932). **a - 1431**

1. Hertsbergs Beobachtungen 1789-1840; 2. Belias Luftdruckbeobachtungen 1854-1887; 3. Irgens Temperaturbeobachtungen in Ullensvang 1865-1871; 4. Die Beobachtungen des Meteorologischen Instituts in Ullensvang 1872-1926; 5. Hilfsstationen; 6. Die 100-jährigen Beobachtungsreihen in Ullensvang haben ein besonderes Interesse, da sie die ältesten noch erhaltenen Temperatur- und Luftdruckbeobachtungen in Norwegen sind, die sich über eine längere Reihe von Jahren erstrecken.

**Birkeland B. J.** - Aeltere meteorologische Beobachtungen in Vardö. Lufdruck und Temperatur seit 100 Jahren [*De veteribus observationibus meteorologicis in* Vardö. *Pressio barometrica et temperatura a 100 annis in hodiernum*]. Geofys. Publ., X, 9, 3-52. Oslo (1934). **a - 1432**

1. Stündliche Beobachtungen 1829-31; 2. Temperaturbeobachtungen in Vardöhus 1840-52; 3. Skanckes Beobachtungen in Vardö 1856-75; 4. Die Genauigkeit von Skanckes Beobachtungen; 5. Mittlere Terminwerte 1840-75; 6. Die meteorologische Station in Vardö 1867-1930; 7. Hilfsstationen.; 8. Die 100-jährigen Beobachtungsreihen.

**Birkeland B. J. & Schou Georg** - Le climat de l'Eirik-Raudes-Land [*De* Eirik-Raudes-Land *eiusque climate*]. 5 fig., 3 tabl., Norg. Svalbard-o. Ish.-unders, Skr. Svalbard o. Ish., 51, 1-13. Oslo (1932). **a - 1433**

La station météorologique de Mygg-Bukta; sa position et fonction. Données météorologiques basées sur les observations de la station pendant 1922-1932.

**Bjerknes J.** - Exploration de quelques perturbations atmosphériques à l'aide de sondages rapprochés dans le temps [*De perturbationibus atmosphœricis exploratis*]. nombr. fig., cartes & tabl., Geofys. Publ., IX, 9, 3-52. Oslo (1932). **a - 1434**

Le 26, 27 et 28 Décembre 1928 l'Institut Royal Météorologique à Uccle a lancé 31 ballons-sondes munis de météorographes Jaumotte. 25 ont été retrouvés, et dans le présent ouvrage l'A. donne l'étude de la structure des perturbations à l'aide de coupes verticales de leurs surfaces isothermes et de leurs surfaces isentropes. Dans le Chap. I on trouve l'analyse du front froid du 26 Décembre et dans le Chap. II celle du cyclone du 28 Décembre. Le Chap. III donne une analyse des perturbations au niveau de la tropopause. Enfin le Chap. IV discute les variations de pression dues aux perturbations inférieures et supérieures. Pour que d'autres puissent faire une étude sur la série des sondages considérés, l'A a publié, en appendice, les données brutes du dépouillement.

**Blake Dean** - Remarkable Low Humidity Aloft over San Diego, California [*De anormali bassa humiditate in stratibus aëris super* San Diego *in California*]. 3 tabl., Monthly Weath. Rev., 61, 6, 170. Washington (1933). **a - 1435**

Results of several remarkable aerographical observations of abnormally low relative humidities made during the month of June, 1932 at the Naval Air Station, North Island, Calif. The accompanying table shows the temperature, relative humidity, wind direction and wind velocity for each 1,000-foot level for the four days, June 13, 15, 21 and 22.

**Boljahn Günther** - Weiterentwicklung des Wigandschen Sichtmessverfahrens im besonderen auf See [*De methodu ad mensurandam visibilitatem* τοῦ Wigand *præcipue in mari. Quæstio de progressione methodus*]. 4 Tabellentaf., 4 Figurentaf., Ann. d. Hydrogr., LXII, II, 429-444. Berlin (1934). **a - 1436**

In der vorliegenden Arbeit wird eingangs das Problem der Sicht und der Sichtbestimmung allgemein behandelt. Ferner wird die Theorie der Sicht- und Sichtweitenbestimmung mit den Sichtmessern von Wigand wiedergegeben; gleichfalls werden die in den einzelnen Zweigen der Praxis, wie Luftfahrt, Seefahrt und Meteorologie, gebräuchlichen Definitionen der Sichtweite besprochen. Der zweite Abschnitt bringt die Prüfung des $\sigma$- Wertes durch Messungen, die in Seeluft gemacht wurden. Im letzen Abschnitt wurde die Messung der Sicht mit dem Sichtmesser so vorgenommen, dass als Ziel der Kontrast zwischen Horizonthimmel und Wasseroberfläche an der Kimm benutzt wurde; dabei änderte sich an dem Aufbau der Sichtformel nichts, und die aus der Augenhöhe bekannte Kimmentfernung und der gemessene a-Wert gingen wie üblich in die Formel ein. Zur Vereinfachung der Sichtmessungen mit den Sichtmessern von Wigand und zur Vermeidung von Rechnungen in der Praxis wird noch eine Fluchtlinientafel beigefügt.

**Bowman Isajah, Compton Karl T., Reed Charles D. & Millikan Robert A.** - The Work of the Weather Bureau [*De operibus peractis ab Officio pro condicionibus meteorologicis*]. Science, LXXVIII, 2035, 604-607. New York (1933). **a - 1437**

**Brooks Charles F.** - A Meteorological Cross Section: The Köppen Birthday Volumes [*Agitur de Sectione quadam meteorologica transversali. Volumina edita die natali* τοῦ Köppen *recurrenti*]. Geogr. Rev., XXIII, 3, 472-478. New York (1933). **a - 1438**

Summary of some of the papers published in the three Köppen volumes and a supplementary number of «Gerlands Beiträge zur Geophysik» dealing with world weather, cyclones and frontal phenomena, great dust storms, equivalent temperatures and other phases of climate, climatic changes, the Wegener-Köppen theory of climatic change, the classification of climates, the meteorological equator, the snow cover and precipitation in the Alps, regional climatology, ocean currents, soils.

**Brooks Charles F.** - The Value of Cloud-Observations [*De nubium observationibus earumque significatione*] (Abstract). Nat. Res. Counc. Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 84-85. Washington, D. C. (1933). **a - 1439**

The author emphasizes the value of cloud-observations in the interpretation of atmospheric processes and for weather-forecasting. He illustrates the program of the International Cloud Year, which is supplementary to that of the Second International Polar Year.

**Brooks C. E. P. & Durst C. S.** - The Winds of Berbera. Discussion of Observations made Under the Supervision of R. S. Taylor, M. B., Ch. B., Principal Medical Officer [*De ventis in* Berberia. *Discussio observationum peractarum,* Taylor *inspectore*]. 8 figs., 5 tabl., Meteorol. Off., Prof. Notes, 65, 2-13. H. M. Stat. Off. London (1934). **a - 1440**

Note of the results of observations made by means of anemograph pilot-balloons: Seasonal variation of upper winds at Berbera. The variation of wind with height at Berbera. The diurnal variation of wind at Berbera. Seasonal variation of temperature (°F) over and on the shores of the Gulf of Aden.

**Brückmann W.** - Zum Problem der atmosphärischen Bewegungen [*De motibus atmosphæricis*]. Meteorol. Ztschr., L, 12, 448-450. Braunschweig (1933). **a - 1441**

Vortrag gehalten auf der 18. Versammlung der Deutschen Meteorologischen Gesellschaft im Oktober 1933. Statt der bisherigen Auffassung der atmosphärischen Bewegungen als Ausgleichsbewegungen der infolge verschiedener Temperaturen entstandenen Druckunterschiede sucht der Redner hier die Möglichkeit eine mechanische Erklärung zu geben. Er betont den Einfluss der verschieden gestalteten Oberflächen der Ozeane und Kontinente auf die gleitenden und haftenden Luftmassen und vergleicht diese Strömungen mit den Gleitvorgängen im Meere. Eine ausführlichere Behandlung dieses Problemes wird folgen.

**Bullig Hans-Jürgen** - Eine typische Grosswetterlage und ihre prognostische Verwertbarkeit. Föhnreichtum in den Alpen als Index einer typischen Grosswetterlage [*De tempestate quadam typica eiusque œstimatione per prognosim. Copia* τοῦ foehn *in Alpibus ac index tempestatis typicœ*]. 17 Tab., 5 Taf., Aus d. Arch. d. Dtsch. Seewarte, 52, 6, 5-36. Hamburg (1934). **a - 1442**

In der vorliegenden Arbeit ist es untersucht worden, ob ein Zusammenhang zwischen der wechselnden Föhnhäufigkeit und der Grosswetterlage besteht, und in welcher Weise sich diese gegebenfalls in der Folgezeit entwickelt. Die Arbeit enthält die folgenden Abschnitte: 1: Methodisches und Statistisches. II: Föhnreichtum in den Alpen als Index eines eindeutigen Grosswetterlagentyps: *a*) Luftdruck- und Windanomalien über Europa und dem Nordatlantischen Ozean in den einzelnen Monaten; *b*) Temperaturanomalien in den einzelnen Monaten; III. Die prognostische Verwertung der für Föhnreichtum typischen Grosswetterlage.

**Bureau R.** - Sur la variation rapide des atmosphériques au lever du soleil [*De rapida variatione atmosphœricorum sole oriente*]. C. R. Acad. Sc., CXCVI, 19, 1426-1428. Paris (1933). **a - 1443**

**Chang-Wang Tu** - China Rainfall and World Weather [*De pluvia in regione Sinensi deque condicionibus atmosphœricis mundialibus*]. Mem. R. Meteorol. Soc., IV, 38, 99-117. London (1934). **a - 1444**

**Chmyznikov P. K.** - Einige Angaben über das Winterregime der Meerengen des Archipels der Neusibirischen Inseln und des Jana-Meerbusens [*De hieme eiusque regimine in maribus ad archipelagus Novae Scotiœ pertinentibus et in baja* Jana] (Russ. Text, dtsch. Rés.) 1 Karte, 1 Fig., Expl. des mers d'U. S. S. R., 15, 33-62. Léningrad (1932). **a - 1445**

Homothermie und Homohalinität im Winterregime der Laptev-Meerenge und der Eterikan. In der Sannikov-Meerenge nur in den oberen Schichten, tiefer als 15-20 m. bei gleicher Temperatur, ein Salzgehalt von 31,3 ‰, statt 21 ‰. Eisdicke bis 227 cm. Einfluss des Janaflusses.

**Clarke Catharine B.** - Reduction of Meteorological Data from the Cruise VII of the « Carnegie » [*Reductio datorum meteorologicorum VII$^{ae}$ expeditionis navis* « Carnegie »]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 79-80. Washington, D. C. (1933). **a - 1446**

Account of the correction for the usual instrumental and observational errors of the data on the hourly values of sea-surface temperature, air-temperature, relative humidity, vapor-pressure, and atmospheric pressure obtained from the recording instruments on board the « Carnegie ». Scheme of reduction of the obtained data. Results of the harmonic analysis of the diurnal variations of the meteorological elements.

**Compton A. H.** - Progress of World-Survey of Cosmic Rays [*De progressibus in radiis cosmicis studendis*]. 5 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 154-158. Washington, D. C. (1933). **a - 1447**

A brief account of the coordinate study of the cosmic rays as organized in the United States, and on the sending of several expeditions into different parts of the world. On the various figures are reported: the intensity of cosmic rays at various altitudes as observed in different parts of the world, the diagram of the apparatus used in this survey, a group of curves representing the variation of the intensity of the cosmic rays with altitude at sea-level and the same data plotted against geomagnetic latitude.

**Counts R. C. Jr.** - Storms over the Northeast Pacific Ocean and Adjacent Land Areas in December 1933 [*De tempestatibus in Oceano Pacifico nordoccidentali regionibusque terrestribus adiacentibus mense Decembri 1933*]. Monthly Weath. Rev., LXII, 2, 58-59. Washington, D. C. (1934). **a - 1448**

Brief outline of the storm movements and anomalous distributions of the various air masses over the northeast Pacific and the adjacent portion of the continent causing an excess of precipitation and abnormally high mean temperatures in the far Western States, except California, during December 1933.

**Dauvillier A.** - Observation des Aurores Polaires au Scoresby Sund pendant l'Année Polaire [*De observatis auroris polaribus in* Scoresby Sound *perdurante anno polari*]. C. R. Acad. Sc., CIIIC, 18, 997-1000. Paris (1933). **a - 1449**

L'observation des Aurores a été assurée d'une façon permanente, à Scoresby Sund, depuis la mi-septembre jusqu'à la mi-avril. La statistique montre que l'aurore a été quasi permanente durant l'année aurorale. Photographie. Spectrographie.

**De Gasperi Luis** - La radiazione solare in rapporto alla previsione del tempo [*Radiatio solaris pro tempore providendo*]. 1 fig., Meteor. Prat., 2, 79-84. Perugia (1933). **a - 1450**

I rilevamenti pireliometrici eseguiti a Perugia dal 24 gennaio 1932 al 25 gennaio 1933 hanno portato a constatazioni molto interessanti per la previsione locale del tempo. La radiazione solare è generalmente in relazione inversa con la umidità relativa presso il suolo, ma questa proporzione può variare quando l'umidità atmosferica non è regolarmente distribuita lungo la verticale. Come conseguenza si possono avere i seguenti casi: radiazione intensa e umidità relativa elevata (indice di tempo stabile e buono), radiazione debole e umidità relativa bassa (tempo tendente alla pioggia). Un sintomo di tempo cattivo si ha pure quando la radiazione a mezzogiorno permane eguale o inferiore a quella delle nove, e ciò indipendentemente dalla situazione igroscopica o barometrica del momento.

**Doucette Bernard F.** - Typhoon and Depressions in the Far East July 1934 [*Agitur de quodam typhone depressionibusque in regionibus orientis extremi mense Julio 1934*]. Monthly Weath. Rev., LXII, 7, 259. Washington, D. C. (1934). **a - 1451**

Description of 1 typhoon and 4 depressions which had influenced the weather conditions in the Far East during the month of July 1934. Information of the same kind is given in all the numbers of this review.

**Dunn G. E.** - Tropical Storms of 1933 [*De tempestatibus tropicalibus a. 1933*]. 1 pl., 2 tabl., Monthly Weath. Rev. LXI, 12, 362-363. Washington, D. C. (1933). **a - 1452**

Report on the 21 tropical disturbances of the year 1933 in the Caribbean Sea, the Gulf of Mexico, and the southern portion of the Atlantic. Plate showing the paths of hurricanes and other tropical storms, 1933. Tables containing statements on monthly frequency of West Indian hurricanes and other tropical storms of the North Atlantic Ocean in 1933, and a synopsis of tropical storms of 1933.

**Eredia F.** - Le piogge sulla Regione italiana nel 1921-1930 [*Pluviœ in regione italica ab a. 1921 ad a. 1930*]. Atti Soc. It. Progr. Scienze. Ventesima Riun. Milano, 12-18 sett. 1931. Vol. II: Resoc. Adun. Sez., 136-137. Roma (1932). **a - 1458**

Riassunto della comunicazione riguardante la sistemazione della rete pluviometrica in Italia.

**Eredia F.** - La rosa dei venti [*Rosa ventorum*]. L'Aerotecnica, XIV, Roma (1934). **a - 1454**

L'A. ricorda gli studi fatti per la rappresentazione dei regimi dei venti durante l'anno. Proposta di Sir N. Shaw di una nuova disposizione per rappresentare direzione e frequenza dei venti.

**Eredia Filippo** - La climatologia dell'alta atmosfera [*De climatologia altæ atmosphæræ*]. Boll. Comit. Naz. It. per la Geod. e Geof., 4, 61-66. Pisa (1932). **a - 1455**

Si riassumono alcuni lavori recenti sulle registrazioni ottenute nei sondaggi eseguiti in una serie di annate. Si illustrano le registrazioni nei sondaggi eseguiti a mezzo di aeroplano a Montecelio e che nell'insieme formano una serie quasi unica di dati perchè le esplorazioni furono eseguite con continuità in tre diversi periodi del giorno.

**Evjen Sigurd** - Zur langfristigen Wettervorhersage [*De atmosphæra providenda maximis temporis spatiis*]. 7 Abb., Geofys. Publ., X, 3, 3-14. Oslo (1933). **a - 1456**

Diese in Tromsø ausgeführten Untersuchungen, die sich zum grossen Teil auf die von Krogness berechneten Temperaturkurven gründen, beziehen sich auf Wettervorhersagen für 8 bis 14 Tage. Es werden hier drei Hauptregeln mit Erläuterungen und schematischen Darstellungen mitgeteilt, deren Treffsicherheit bei der Anwendung grösseren Materials noch zuverlässiger werden könnten. Zum Schluss wird der Zusammenhang der barometrischen Unruhe mit der Wetterlage besprochen.

**Evjen Sigurd** - Zur Kenntnis der barometrischen Unruhe mit Bemerkungen über den täglichen Barometergang [*Agitur de cognoscenda instabilitate barometrica cum notis de barometrico diurno decursu*]. 1 Abb., Meteorol. Ztschr., L, 10, 374-378. Braunschweig (1933). **a - 1457**

A. Täglicher Gang der barometrischen Unruhe: Die Angaben beziehen sich auf die Messung während eines Tages in Oslo. B. Die Jahreswerte der barometrischen Unruhe: *a*) die der gesamten Unruhe, *b*) die der Unruhe für Differenzen; *c*) durchschmittliche Unruhe pro Tagesabschnitt (je 6 Stunden) *e*) Anzahl der Tagesabschnitte für Differenzen. C. Bemerkungen über den täglichen Barometergang: Erörterung über Untersuchungen von Lamont, Ekholm, Leyst, Hann, Hellmann Travnicek u. a.

**Fassig Oliver L.** - The Trade-Winds of the Eastern Caribbean [*Etesiæ in regione orientali Maris Caraibici*]. 11 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 69-78. Washington, D. C. (1933).

(—) S.: Trans. Amer. Geogr. Union, June, 68-78. Washington (1933). **a - 1458**

Summary of the results of pilot-balloons observations made at a station at San Juan, Puerto Rico, established in July 1920 by the United States Weather Bureau. The records of the observations furnish a material of the greatest importance for a detailed study of the trade-winds, and for the selection of the most efficient air routes.

**Fergusson S. P.** - Aerological Studies on Mount Washington [*De aërologia in monte* Washington]. 2 figs., 1 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 114-117. Washington, D. C. (1934). **a - 1459**

Brief report on the extension of a study of the influence of mountains upon meteorological phenomena conducted during the summer seasons of 1905, 1906 and 1907, of which the opportunity has been afforded by the establishment of the Mount Washington Observatory in 1932 by Joseph B. Dodge of the Apalachiam Mountain Club as a contribution to the International Polar Year Program of 1932-1933. The data are simultaneous records of the principal meteorological elements on the summit and in the free atmosphere at the same height.

**Field J. H., Warden M. A. & R.** - A Survey of the Air Currents in the Bay of Gibraltar 1929-30 [*De relevamento currentiarum aëriarum Sinus Gaditani 1929-30*]. 30 pls. on tabl., Meteorol. Off., Geophys. Mem. 59, VII, 2, 3-30. H. M. Stationery Off. London (1933). **a - 1460**

1. Introdution: Sect. 1. Object. Sect. 2. The investigation. II. Model Work: 3. Apparatus used. 4. First method- flags. 5. Second method streamers. 6. Relative advantages of flags and streamers. 7. Results of work with the model. III. The work at Gibraltar: 8. Observations by pilot-balloons. 9. Comparison of « actuals » with the model results. 10. Areas of strong up and down wind components. 11. Strengths of vertical components of winds. 12. A further method of examination of eddies. IV. Summary. Appendix: Description of a kite instrument for recording wind features in eddies.

**Findeisen Walter** - Ueber Beobachtungen von Luftspiegelungen auf dem Neuwerker Watt [*De mirabilibus imaginibus observatis in* Neuwerker Watt.]. Ann. d. Hydrogr., LXII, 10, 423-426. Berlin (1934). **a - 1461**

Bericht über Beobachtungen von Luftspiegelungen auf dem in der Umgebung von Neuwerk (eine Insel an der Elbemündung) gelegenen Watt, auf dem günstige Vorbedingungen für die Ausbildung von derselben gegeben sind.

**Foitzik Leonhard** - Messungen der spektralen Lichtdurchlässigkeit von Naturnebeln mit einem neuen Sichtmesser [*Mensuræ transparentiæ spectralis nebularum naturalium novi apparatus metatorii auxilio*]. 4 Abb., Naturwiss., XXII, 22/24, 384-386. Berlin (1934). **a - 1462**

Beschreibung eines vom Vf. gemeinsam mit der Firma Zeiss nach einer Idee von Prof. Koschmieder entwickelten Apparates zur Messung des Schwächungskoeffizienten von Naturnebeln. Grösse des Schwächungskoeffizienten bei verschiedenen Messungen innerhalb eines Bereiches von 0.3-4 km. Sichtweite. Abweichungen. Möglichkeit sicherer Aussage und quantitativer Angaben.

**Freiesleben H. C.** - Luftspiegelung nach oben [*Mirabiles imagines aëriæ in altum*]. Ann. d. Hydrogr., LXII, 10, 426. Berlin (1934). **a - 1463**

Bericht über eine deutlich auf Helgoland am 1. VI. 1934 beobachtete Spiegelung der Kimm.

**Fuller Veryl R.** - Auroral Station at the Alaska Agricultural College and School of Mines [*Statio pro observationibus auroræ borealis in Collegio agrario et schola mineralogica alaskiana*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 177. Washington, D. C. (1934). **a - 1464**

Brief account of the investigation of the aurora continued during 1933-34 and the continuous measurements of the height of the ionosphere by the reflection-method maintained at Fairbanks after the close of the International Polar Year program at the end of August 1933.

**Gamba Pericle** - La previsione generale del tempo [*De provisione generali condicionum atmosphæricarum*]. (III Concorso Magistrale marittimo peschereccio). 3 fig., Soc. Tip. A. Manuzio. Ist. Poligr. dello stato - Libreria. Roma (1933). **a - 1465**

**Gamba Pericle** - Sulla unificazione dei segni meteorologici internazionali [*De unificandis signis meteorologicis internationalibus*]. Ric. Scient. (Boll.

Com. Naz. It. per la Geol. e Geof.), II, 7/8, 56-60. Roma (1933). **a - 1466**

Dopo aver esposto quanto è stato fatto fin qui per rappresentare con simboli i vari fenomeni meteorologici, si fa presente la necessità di uniformare da parte dei dirigenti i Servizi meteorologici di tutto il mondo attenendosi ad un codice internazionale unico ed uguale per tutti.

**Gherzi F.** - Zi-Ka-Wei Observatory. Typhoons in 1931. (Some Data about Typhoon Centres) [*Observatorium in* Zi-Ka-Wei. *Typhones a. 1931*]. 1 pl., 4 maps, 38 pp., Tou-Se-Wé Orphan. China (1933). **a - 1467**

**Giere Werner** - Die Windverhältnisse an den ostbaltischen Küsten [*De venti condicionibus præter litus orientale maris Baltici*]. 10 Kart., 9 Taf., 34 S., Arb. d. Naturforsch. Ver. zu Riga, N. F. XX. Riga (1933). **a - 1468**

**Gorczynski L.** - Valeur de la radiation solaire observée en différentes parties de la Terre [*De valoribus radiationis solis observatis diversis Terræ locis*]. Przeglad Geograficzny, XII, 12, Varsovie (1932). **a - 1469**

**Gorczynski L.** - Actinomètres à lecture directe et enregistreurs [*De apparatibus actinometricis lectione directa prœditis. Agitur etiam de apparatibus registratoribus*]. ill., 32 pp., Ass. Typogr., Nice (1933). **a - 1470**

**Gray Richard W.** - Florida Hurricanes [*De tempestatibus in* Florida]. 1 graph., 3 tabl., Monthly Weath. Rev., 61, 1, 11-13. Washington, D. C. (1933). **a - 1471**

Summary of observations carried on during the 45-year period ending with 1930 of the damaging winds in the coastal regions of Florida. Tables indicating the frequency of tropical cyclones by year, id. by months and the chances of winds of hurricane force in any given year.

**Gregg Willis Ray** - Progress in Development of the United States Weather Service in Line with the Recommendations of the Science Advisory Board [*De progressibus munerum meteorologicorum Provinciarum Foederatarum Americæ ex præceptis officii pro consultationibus scientificis*]. Nat. Res. Counc., Trans. Amer. Geoph., Union, 15th Ann. Meet., Part I, 6-7. Washington (1934). **a - 1472**

Brief information as to the foundation of the Science Advisory Board which acts under the jurisdiction of the National Research Council and which has been created by President Roosevelt on July 31, 1933. Summary of the report submitted by the « Special Committee on the Weather Bureau » appointed by the Board containing a number of recommendations, the two most important being (1) an extension of the air-mass analysis method of forecasting, and (2) consolidation of weather- and communication-service under the Weather Bureau.

**Grimm Hans** - Nebelhäufigkeit an den deutschen strahlungsklimatischen Stationen [*Caliginis frequentia in stationibus elioterapicis Germanicis*]. 1 Tab., Ann. d. Hydrogr., LXI, 1/2, 36-38. Berlin (1933). **a - 1473**

Zusammenfassende Wiedergabe der von Lossnitzer, Galbas, Linke, Hellmann u. a. über die Häufigkeit der Nebeltage im Laufe des Jahres im Bezirke der strahlungsklimatischen Stationen im deutschen Nordseegebiet unternommenen Untersuchungen. In einer Tabelle (aus einer Arbeit von Hellmann entnommen) sind die mittleren Zahlen der Nebeltage im Jah (Periode 1891/1920) für 19 Stationen mitgeteilt.

**Grimm Hans** - Das aschgraue Mondlicht im Jahre 1932 [*De luce lunari coloris cinerei a. 1932*]. 1 Tab., Ann. d. Hydrogr., LXI, 7, 217-218. Berlin (1933). **a - 1474**

Fortsetzung des Berichts in « Ann. d. Hydrogr. », Juli 1932, S. 297-299. In einer Tabelle sind in Plassmannschen Helligkeitsgraden die Ergebnisse von 56 Schätzungen der Helligkeit des aschgrauen Mondlichtes (a. M.) wiedergegeben, welche im Text mit den von S. Skreb erhaltenen Resultaten verglichen worden sind.

**Grover N. C.** - Relation of Meteorology to Hydrology [*Correlatio inter meteorologiam et hydrologiam*]. Nat. Res. Counc., 14th Ann. Meet. Trans. Amer. Geoph. Union, Apr. 27-29, 1933, 25-27. Washington, D. C. (1933). **a - 1475**

The author emphasizes the interrelation of interest of the sections of Hydrology and Meteorology, whose fields added to that of oceanography cover the never-ending cycle of motion of water.

**Hand Irving F.** - Solar Radiation Measurements during January, 1933 [*De mensuris irradiationum solis mense Januario 1933*]. num. tabl., Monthly Weath. Rev., 61, 1, 18-20; 2, 47-49; 3, 86-87; 4, 116-177; 5, 143-145; 6, 174-176. Washington, D. C. (1933). **a - 1476**

Tables showing solar radiation intensities in January, 1933, average daily totals of solar radiation (direct-diffuse) received on a horizontal surface, solar radiation measurements, and determinations of atmospheric factor, β, at Washington, D. C., positions and areas of sun spots and provisional sun spot relative numbers.

**Harang L.** - Eine Untersuchung der Polarisation des Nordlichtes [*Agitur de quadam inquisitione in polarisationem auroræ borealis*]. Ztschr. Geophys., IX, 3, 265-266. Braunschweig (1933). **a - 1477**

**Harang Leiv** - Filteraufnahmen von Polarlicht [*De aurora boreali eiusque photographiis per philtrum*]. 14 Abb., 4 Taf., Geofys. Publ. Norske Vidensk., Akad. X, 8, 5-27. Oslo (1933). **a - 1478**

Einleitung. 1. Filteraufnahmen in grün und blauviolett; 2. Filteraufnahmen in rot und grün; 3. Filteraufnahmen in ultrarot und ultraviolett; 4. Untersuchung der Polarisation des Nordlichtes.

**Harrison Louis P.** - Tables (in Millibars) of the Pressure of Saturates Aqueous Vapor Over Water at Temperatures From 0° to - 50° C [*Pressio vaporis aquarum saturi super aquam. Tabulæ temperaturæ a 0° ad - 50° C.*]. 2 tabl., Monthly Weath. Rev., LXII, 7, 247-248. Washington, D. C. (1934). **a - 1479**

Tables often required in aerological work, particularly in connection with the interpretation of hair-hygrograph readings.

**Harrison Louis P.** - The Purpose of the Compilation of Aerological Data Being Made Under the Civil Works Administration Program of the Weather Bureau [*De propositis in elaborandis datis aërologicis ex ratione operum publicorum peractis per officium meteorologicum*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 101-102. Washington, D. C. (1934). **a - 1480**

Brief account of the work involving the compilation of aerological data set into operation at 24 stations scattered over the United States. The work, extending over a period of time ranging from two to four and one-half months, falls naturally into the three following general categories which are discussed

in the present note: I. Compilation of Polar-Year data; II. Graphical representation and tabulation of data showing diurnal variation of various meteorological elements in the free air; and III. Statistical compilation of various meteorological data for the aid of aerial navigation and for studies of the general circulation of the atmosphere.

**Haurwitz B.** - The recent Theory of Gião Concerning the Formation of Precipitation in Relation to the Polar-Front Theory [*De ultima theoria secundum* Gião *circa formationem præcipitationum pro theoria frontis polaris*]. Nat. Res. Counc. Trans., Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 89-91. Washington, D. C. (1933). **a - 1481**

The author gives a short account of Giao's theory which is contrary to the theory of the Norwegian school of meteorologists concerned with the causes of precipitation and indicates the reason why it fails. On hand of the discussion of the hydrometeors he claims that the Norwegian theory is very much to be preferred to the theory presented by Giao.

**Herrmann M.** - Föhnlücke in einer geschlossenen Hochnebeldecke am Südkap der Bäreninsel am 3. August 1933 [*De observato phænomeno in vento nomine* Föhn *in insula Ursorum*]. 4 Abb., Meteorol. Ztschr., L, 12, 472-473. Braunschweig (1933). **a - 1482**

Vortrag gehalten auf der 18. Versammlung der Deutschen Meteorologischen Gesellschaft in Oktober 1933. Die hier kurz beschriebene Erscheinung, beobachtet vom Redner und Dr Rieth auf ihrer Rückreise von der Polarfahrt der Deutschen Seewarte, ist besonders deshalb anschaulich, weil die Wolkendecke, aus der kein Niederschlag gefallen war, zwischen dem Küstenrand und dem Meeresniveau genauen Raum hatte sich auflösen zu können.

**Hesselberg Th.** - Våre arktiske vaerstasjoner [*Nostræ stationes meteorologicæ in regionibus arcticis*]. 1 carte, 1 tabl., Norsk. Geogr. Tidsskr., IV, 7, 3, 455-464. Oslo (1933). **a - 1483**

Bref aperçu du développement des stations météorologiques à partir de l'année 1854 où l'initiative en fut prise. L'organisation des trois stations centrales norvégiennes: Oslo, Bergen et Tromsø et les lieux d'observations en communication avec elles (indiqués sur une carte). L'importance et le développement des stations arctiques dont les résultats sont données dans un tableau.

**Hoerlin H.** - Latitude Effect of Cosmic Radiation [*Latitudinis effectus in radiationes cosmicus*]. 1 fig., Nature, CXXXII, 3323, 61. London (1933). **a - 1484**

On observations of cosmic rays made at several heights up to 6.100 m. and during the sea-voyage by the expedition organized by the « Deutscher and Oesterreichischer Alpenverein » in 1932. A diagram is given. There exists a latitude effect of 12 per cent.

**Hubert Henry** - Sur la distribution des filets d'air dans les cyclones tropicaux [*De filis aëriis eorumque distributione per cyclones tropicales*]. 1 fig., C. R. Acad. Sc., CIIC, 15, 1358-1361. Paris (1934). **a - 1485**

Sur un procédé de l'auteur appliqué à plusieurs cyclones de la Martinique, de Madagascar et de l'Indochine. Résultats des mesures.

**Humphreys W. J.** - On the Occasions, or Incidental Causes, of Extratropical Cyclones [*De causis cyclonum extratropicalium per occasionem seu per incidentem*]. 12 charts, Monthly Weath. Rev., 61, 4, 112. Washington, D. C. (1933). **a - 1486**

On hand of twelve examples illustrated on 12 charts the author gives some hints which may be helpful to students of the puzzle, the extratropical cyclone.

**Humphreys W. J.** - United States Weather Bureau [*Officium Meteorologicum ad Americæ Provincias Foederatas pertinens*]. Rep. Comm. Submar. Config. & Ocean. Circul., Nat. Res. Counc., 1932, 22-26. Washington, D. C. (1933). **a - 1487**

Account of sea-surface temperature investigations performed in the United States as a basis for special research into possible causative influences upon continental weather conditions. Report of the routine work of the Bureau. Charting of data for the Gulf of Mexico, the Caribbean Sea, and the western North Atlantic Ocean.

**Hunter Herbert C.** - North Atlantic Ocean [*Oceanus Atlanticus Nordicus*]. 1 tabl., Monthly Weath. Rev., LXII, 1, 28. Washington, D. C. (1934). **a - 1488**

Atmospheric pressure, cyclones, gales, and fog in January, 1934. Table of averages pressure departures, and extremes of atmospheric pressure at selected stations for the North Atlantic Ocean and its shores, January 1934.

**Hunter H. C.** - Weather of the Atlantic and Pacific Oceans. North Atlantic Ocean [*De atmosphæræ condicionibus Oceani Atlantici et Oceani Pacifici. Atlanticus Nordicus*]. 1 tabl., Monthly Weath. Rev., LXII, 7, 257. Washington, D. C. (1934). **a - 1489**

Atmospheric pressure, cyclones and gales, fog, and averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, July 1934. Information of the same kind is given in all the numbers of this review.

**Hurd Willis E.** - The Weather of the Atlantic and Pacific Oceans: North Pacific Ocean [*De atmosphaericis condicionibus Oceani Atlantici et Oceani Pacifici. Oceanus Pacificus Nordicus*]. tabl. Monthly Weath. Rev., LXI, 1, 25-26; 2, 53; 3, 91; 4, 120-121; 5, 148-149; 6, 179-180. Washington, D. C. (1933). **a - 1490**

Data on atmospheric pressure, cyclones and gales, monsoons and northers, and fog occurred on the North Pacific Ocean.

**Hurd Willis E.** - North Pacific Ocean, July 1934 [*Oceanus Pacificus Nordicus. Mense Julio 1934*]. 2 tabl., Monthly Weath. Rev., LXII, 7, 258-259. Washington, D. C. (1934). **a - 1491**

Atmospheric pressure, cyclones and gales, fog, averages, departures, and extremes of atmospheric pressure at sea level at selected stations, July, 1934. Information of the same kind is given in all the numbers of this review.

**Jameson H.** - Report on the Colombo Observatory with Maps and Statistics for 1933 [*Relatio redacta ab observatorio in* Colombo *cum chartis et tabulis statisticis a. 1933*]. 18 tabl., 6 maps, 2 pls., Ceylon Govmt. Press., 1-31, y 1 - y 18. Colombo (1934). **a - 1492**

Administration. Time. Meteorological. Publications. Seismograph. Weather summary. Rainfall tables. Tables of Statistics as published in the Ceylon Blue Book. Maps and diagrams.

**Jatho Alfredo** - La correlación de la presión atmosférica y de las precipitaciones con las manchas solares [*Correlatio inter pressionem atmosphæricam, præcipitationes et maculas solis*] (Rés. franç.). An. Soc. Cient. Argentina, XCI, IV, V, 210-233; 295-304. Buenos Aires (1931). **a - 1493**

Etude préliminaire d'un travail qui sera bientôt publié, présentée à la première réunion nationale géographique. Après

avoir brèvement traité des oeuvres précédentes sur ce sujet et analysé à l'aide des formules des ondes solaires et la corrélation solaire-barométrique ainsi que la corrélation solaire-pluviométrique, l'A. examine comme exemples typiques des pluies ascensionnelles les précipitations de la côte nord du continent sud-américain ainsi que celles des Indes, puis les pluies migratoires, dues aux grands courants atmosphériques, et en exposant à la fin différence entre la pression atmosphérique de S.te Hélène et celle de Rio de Janeiro il conclut que dans les cas les plus simples la pression atmosphérique et surtout les precipitations sont en rapport avec le numéro des taches solaires.

**Jensen Chr.** - Strahlungsmessungen auf Amrum im August und September 1929 [*De mensura irradiationum in* Amrum *mensibus Augusto et Septembri 1929*]. 6 Tab., 2 Taf. a T., Ann. d. Hydrogr., LXI, 7, 202-210. Berlin (1933). **a - 1494**

Zusammenfassende Wiedergabe der Ergebnisse der von dem Vf. im Nordseegebiet (Geklino) in Nebel auf Amrum zwischen dem Sanatorium und dem Wattenmeer durchgeführten Strahlungsmessungen, und zwar Bestimmungen der Strahlungsintensität der Sonne, der Polarisationsgrösse im Zenit, solche der sogenannten Neutrallinien, der Höhe der neutralen Punkte von Babinet und von Arago und der Höhe des unter dem A-Punkt liegenden sekundären neutralen Punktes. Ausser den Ergebnissen werden auch die Vermessungsmethoden mitgeteilt.

**Kaminsky A. A. & Wanejewa** - Die Verfrachtung des Wasserdampfes im Sommer auf den europäischen Teil der U. S. S. R. [*De vapore aquarum, æstivo tempore, in territorio ad regionem europæam U. R. S. S. pertinente*]. 50 Kart., 3 Tab., Mém. Inst. Hydrol., 5-116. Léningrad (1933). **a - 1495**

Vorwort. Einleitung. Ueber die Verwendung der absoluten Feuchtigkeit beim Studium der Verfrachtung des Wasserdampfes. Die Verfrachtung des Wasserdampfes vom Barents. Weissen und Karischen Meere ins Innere des europäischen Teiles der U.S.S.R. Die Verfrachtung des Wasserdampfes über die Ostsee nach dem Inneren des europäischen Teiles der U.S.S.R. Die Verfrachtung des Wasserdampfes vom Mittelländischen, Schwarzen und Asowschen Meere in das Innere des europäischen Teiles der U.S.S.R. Der Anteil des Kaspischen Meeres an der Versorgung des europäischen Teiles der U.S.S.R. mit Wasserdampf. Die Zunahme der absoluten Feuchtigkeit in der unteren Schicht der von Meeren verfrachteten Luftmassen als Folge der Verdunstung. Gewitter. Trockene Steppenwinde. Wasserdampftransport und Klimaschwankungen. Schlussbemerkung.

**Kanter H.** - Klimatologische Witterungsschilderung. Nr. 8: Argentinien [*Temporis descriptio climatologica. N. 8: Argentina*]. Ann. d. Hydrogr., LXI, 7, 214-217. Berlin (1933). **a - 1496**

*a*) Winterwetter an der südlichen Chacogrenze. Gebiet des unteren Rio Dulce (30° S, 63° W). Luftdruckverteilung nach der Wetterkarte der Dirección de Meteorologia in Buenos Aires vom 25. Juni bis 16. Juli 1930; *b*) Sommerwetter im Gebiet Campo Gallo. General Pinedo, Chaco (27° S, 62° W). Luftdruckverhältnisse nach der Wetterkarte usw. vom 20. März bis 2. April 1931.

**Keil K.** - Der Zustand der freien Atmosphäre über Hamburg während des Polarjahres 1932-33 [*De atmosphæræ liberæ Hamburgi condicionibus, perdurante anno polari 1932-33*]. 3 Abb., 10 Tab., 1 Tafeltab., Ann. d. Hydrogr., LXII, 10, 406-411. Berlin (1934). **a - 1497**

Bericht über den Zustand der freien Atmosphäre über Hamburg an Hand der Temperatur- und Höhenwindmessungen aus der Zeit des 2. Internationalen Polarjahres: (Monatsmittel der Temperatur in den verschiedenen Höhen über Hamburg; absolute Extreme der Temperatur in den einzelnen Monaten und Höhenstufen; Monat mit der höchsten Temperatur; Differenz der absoluten Temperatur für die einzelnen Monate und verschiedenen Höhenstufen; Differenz der höchsten und niedrigsten beobachteten Temperaturen. Die Höhenwindverhältnisse: Mittlere Windgeschwindigkeit; Grösste und kleinste mittlere Windgeschwindigkeit und die verschiedenen Höhenstufen; Mittlere Luftversetzung; die verschiedenen Windrichtungen für bestimmte Windgeschwindigkeitsstufen).

**Kincer J. B.** - Climatological Work Accomplished Through Cooperation with the United States Civil Works Administration [*Opus climatologicum, consociata opera peractum, per Administrationem operum publicorum in Americæ Provinciis Foederatis*]. Nat. Res. Counc. Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 99-101. Washington, D. C. (1934). **a - 1498**

Brief account of the cooperation between U. S. Weather Bureau and the U. S. Civil Work Administration which has been of great value to the climatological service of the Bureau, enabling it to make a great number of much-needed compilations of data that otherwise would have been impossible.

**Kirstein Günther** - Klimatographische Witterungsschilderung. N. 10: Angola [*Temporis descriptio climatographica. N. 10.* Angola]. Ann. d. Hydrogr., LXI, 8/9, 265. Berlin (1933). **a - 1499**

Witterungsverlauf an normalen Tagen in verschiedenen Jahreszeiten in Gandu, etwa 13° 30' S, 12° 30' 0, Seehöhe ungefähr 1650 m, in Benguela Hochland. (s. auch: « Ann. d. Hydrogr. », 1932, S. 169: « Witterungsverlauf an einem Tage der Regenzeit »).

**Koeppen W.** - Die Temperatur der oberen Luftschichten über Lappland [*De temperatura in summis stratibus atmosphæricis in Lapponia*]. 1 Diagr.. 1 Tab., Ann. d. Hydrogr., LXI, 11/12, 392-393. Berlin (1933). **a - 1500**

Ergebnisse der Erforschung der höheren Luftschichten durch Registrierballone von der aerologischen Station am naturwissenschaftlichen Observatorium für wissenschaftliche Forschung in Abisko, an Hand der Arbeit von Bruno Rolf (Mitt. Met.-Hydr. Anst. Stockholm, V, 1932. B. Rolf: « Lancers de ballons-sondes d'Abisko de 1921 à 1929 »).

**Koeppen W.** - Klima der Halbinsel Santa Elena (Ekuador) und neues Auftreten des Niño-Stromes [*De climate pæninsulæ Sanctæ Helenæ (in Equatore) deque currentia* Niño *nomine*]. 3 Tab., Ann. d. Hydrogr., LXII, 7, 277-278. Berlin (1934). **a - 1501**

An Hand der von G. Sheppard ausgeführten Beobachtungen wird die wechselnde Ausbildung der wiederkehrenden Regenzeit in dem Gebiete von der Halbinsel Santa Elena an der südamerikanischen Westküste besprochen, und die abnorme Ergiebigkeit der Regenzeit von 1932 durch das neue Auftreten des Niño-Stromes erklärt.

**Köhler Hilding** - Meteorologische Turbulenzuntersuchungen [*Inquisitiones in turbulentiam meteorologicam*]. 3 Abb., Kungl. Sv. Vetensk. Akad. Handl. 3e ser., XIII, 1, 1-53. Stockholm (1933). **a - 1502**

Der Vf. leitet direkt aus den Arbeiten Reynolds' und H. A. Lorentz' eine Differentialgleichung ab, wie sie zu meteorologischen Zwecken anzuwenden ist. Ableitung der Differentialgleichung. Auflösung der Gleichung. Grössenanordnung der Konstanten. Trennung der reellen und imaginären Teile. Untersuchung des virtuellen Reibungskoeffizienten. Verhältnisse in in der Bodennähe. Winkel zwischen dem Gradienten und der Windrichtung. Die Richtung der Reibungskraft. Der Wert $\mu$ als Turbulenzcharakteristik. Erklärungsversuch. Vorbereitende Untersuchung in etwas grösserer Höhe. Ueber die Austauschgleichung. Auflösung der Austauschgleichung. Verschiedene Annahmen über $\varphi(t)$ und $f(\zeta)$. Literatur.

**Koschmieder H.** - Dynamische Meteorologie [*De meteorologia dynamica*]. 137 Abb., 1 Taf., XII + 376 S., Physik der Atmosphäre, II. Leipzig (1933). **a - 1503**

I. Buch, Statik: Zustandsgrössen und Gasgleichungen, trockene und feuchte Luft, quasistatische Bewegungen; II. Buch, Kinematik: allgemeine Eigenschaften des Stromfeldes,

kinematischer Aufbau hydrodynamischer Stromfelder ; III. Buch, Dynamik : Massenpunkt auf rotierender Erde, Gradientwind ; Margulessche Grenzflächenneigung, elementare Bewegungen mit Reibung : Ekman-Spirale ; Austausch. Lineare Schwingungen. Energiegleichungen. Zirkulationssätze.

**Koschmieder H., Weickmann L., Bartels J., Benndorf H., Schmidt W. u. a.** - Physik der Atmosphäre, Sammlung lehrbuchartiger Monographien aus dem Gebiete der Meteorologie hrsg. von H. Koschmieder [*Physica atmosphæræ*]. Akad. Verlagsg. m. b. H., Leipzig (1933-34). **a - 1504**

Bis jetzt sind die folgenden Bände erschienen ; I. Wetterkunde ; II. Dynamische Meteorologie ; III. Meteorologische und geophysikalische Rechenverfahren ; IV. Luftelektrizität ; V. Landwirtschaftliche Meteorologie.

**Kreilsheimer A. C.** - Hunting the Aurora Borealis [*De aurora boreali*]. Discovery Repts., XIV, 166, 306-307. London (1933). **a - 1505**

**Kuhlbrodt E.** - Die tägliche Periode von Stärke und Richtung des Passats auf hoher See [*Agitur de periodo diurno roboris et directionis venti monsonis in mare altum*]. Meteorol. Ztschr., L, 12, 447-448. Braunschweig (1933). **a - 1506**

Vortrag gehalten auf der 18. Versammlung der Deutschen Meteorologischen Gesellschaft im Oktober 1933. Ausgehend von seinem im Heft X. der Ann. d. Hydr. 1933, veröffentlichten Aufsatz bespricht der Vf. auf Grund der von mehreren Expeditionen gemachten Beobachtungen die Stärke des Nordostpassats und die des Südostpassats, die tägliche Periode der Richtung beider Passate und die tägliche Periode des Windes in Beziehung zu derjenigen des Luftdruckes.

**Leighly John B.** - Marquesan Meteorology [*De meteorologia in insulis* Marquesan]. 5 figs., Univ. Calif. Publ. Geogr., VI, 4, 147-172. Berkeley, Calif. (1933). **a - 1507**

Notes on the meteorological observations made in the Marquesas Islands by the Pacific Entomological Survey during the years 1929-1932 : Introduction. Local contrasts within the island group. The daily cycle. The annual cycle. Variations of duration longer than the year. The dynamics of the variations of longer period. The problem of seasonal forecasting of rain.

**Leighly John B.** - Graphic Studies in Climatology. III. A Graphic Interpolation Device for Dating the Extremes of the Annual Temperature Cycle [*Studia graphica climatologica. III. Apparatus graphicus ad cyclum annuum temperaturæ significandum*]. 4 figs., Univ. Calif. Publ. Geogr., VI, 5, 173-190. Berkeley, Calif. (1934). **a - 1508**

The graphic and numerical devices reported in this paper have grown out of an attempt to express more accurately than has in the past been possible the delay of the summer maximum of temperature along the Pacific coast of North America. The results of the regional investigation are reserved for a later communication. It is the extreme parts of the annual curves that are subjected to scrutiny here.

**Lettau Heinz** - Atmosphärische Zirkulation auf der nördlichen Halbkugel im Lichte der Turbulenzvorstellungen [*De circulatione atmosphærica in hemisphærio septentrionali ex hypothesi turbulentiarum*]. 1 Tab., Ann. d. Hydrogr., LXII, 6, 252-256. Berlin (1934). **a - 1509**

Diese Arbeit ist als ein Ausbau der Veröffentlichung Exners « Karten der atmosphärischen Zirkulation auf der nördlichen Halbkugel » (Wien 1929) anzusehen, wobei der Vf. auf die Anwendung der Turbulenzvorstellungen sowie auf die Notwendigkeit einer Umstellung der dem atmosphärischen Vertikalaustausch zugrunde liegenden Zeiteinteilung hinweist. Es wird eine erläuternde Uebersicht der erwähnten Karten gegeben mit Ergänzung einer Karte, welche die mittlere Veränderlichkeit der Strömung, ihre Grossturbulenz, angibt.

**Lettau Heinz & Schwerdtfeger Werner** - Vertikalaustausch in unmittelbarer Berechnung [*Methodus celerrima ad permutationem verticalem atmosphæricam calculandam*]. 1 Taf., zahlr. Formeln, Meteorol. Ztschr., L, 2, 47-51. Braunschweig (1933). **a - 1510**

Erörterung verschiedener Berechnungsmethoden mit besonderer Hinsicht auf die von Defant, welche obgleich für den horizontalen Austausch gebraucht, auch auf den vertikalen bezogen werden kann. Die nötige Verarbeitung derartiger Beobachtungen laut der Theorie von Hesselberg sowie die Messungen von P. Ludwig über die Vertikalbewegung werden hier wiedergegeben.

**Lori F.** - La radiometeorologia [*De radiometeorologia*]. Scientia, X, 229-239. Bologna (1933). **a - 1511**

È un articolo di divulgazione sui fondamenti scientifici, sperimentali e di osservazione, di questo capitolo della meteorologia, che va acquistando autonomia scientifica. L'A. riassume la storia delle trasmissioni con onde elettromagnetiche : il contributo dei fisici, dei matematici e dei tecnici. Egli si sofferma sulla propagazione delle perturbazioni elettromagnetiche in mezzi che, come l'atmosfera terrestre, contengono elettroni e ioni. Accenna alle questioni, che riguardano la costituzione dell'atmosfera nei vari strati fino ai più esterni : ai metodi sperimentali e teorici, che possono essere utilizzati per progredire in questa conoscenza e per risolvere i problemi di propagazione delle onde : all'aiuto che fisica e industria possono scambiarsi per il progresso delle conoscenze in questo campo, all'importanza degli studi relativi tanto al lato pratico che a quello teorico di questo progresso.

**Maino E.** - Il vento del Sud Africa [*De vento sudafricano*]. Ceschina. Milano (1934). **a - 1512**

**Majo Ester** - Un ventennio di osservazioni eliofanometriche in relazione con la nebulosità di Napoli [*De observationibus eliophanometricis viginti annos Neapoli peractis pro nebulis*]. Boll. della Soc. dei Nat., XLV, 225-250. Napoli (1933). **a - 1513**

Si prendono in esame i totali diurni delle ore di sole dal 1912 al 1931 dedotti dalle registrazioni dell'eliofanometro dell'Istituto di Fisica terrestre della R. Università e si calcolano i totali decadici, mensili, stagionali ed annuali rispettivamente per il 1° e 2° decennio e per l'intero ventennio, rilevandone in figura i risultati. Si passa quindi al calcolo dell'eliofania giornaliera e relativa, si rilevano i massimi e minimi mensili e annuali dell'eliofania assoluta. Si calcolano i valori successivi decennali, per mesi e anni dell'eliofania assoluta e dell'eliofania relativa. Le medie successive, così determinate, mostrano rispettivamente differenze di poche ore e pochi centesimi. In corrispondenza l'A. dà i valori successivi decennali della nebulosità (media delle osservazioni delle ore 9 e 15) e i massimi e i minimi rilevati. Coi valori della eliofania e della nebulosità si trova il coefficiente di correlazione, ottenendo il valore

$$r = -0{,}29,$$

corrispondente ad una debole correlazione negativa. L'A. si serve della formula di Courdevache e trova che i valori calcolati in base a tale formula risultano tutti in difetto rispetto a quelli effettivamente rilevati. Si avvale per ciò dei valori medi della nebulosità dedotti dalle osservazioni delle ore 9, 15 e 21 e introduce tali valori nella formula di Angot, pervenendo a valori dell'eliofania in soddisfacente accordo con quelli effettivamente rilevati.

**Mariolopulos Elia** - Μετεωρολογικαὶ παρκτηρήσεις θεσσαλονίκης [*Meteorologicæ observationes in Tessalonica*]. 27 tab., carta, 4 tav., 46 pp., Università. Salonico (1933). **a - 1514**

**Markgraf** - Einige Wasserhosenbeobachtungen [*De observatis quibusdam columnis marinis*]. Ann. d. Hydrogr., LXII, 8, 345-347. Berlin (1934). **a - 1515**

Beobachtungen *a*) vom Feuerschiff « Elbe 1 » am 9-IX-1930 ; *b*) der Marinesignalstelle Marienleuchte an der Nordostecke der

Insel Fehmarn am 16-IX-1931; *c*) auf der Strecke Helgoland-St. Peter-Amrumbank am 4-VIII-1932 und *d*) über der Strecke Wesermünde-Cuxhaven. Die behandelten Fälle von Wasserhosenbeobachtungen sind ganz verschiedener Wetterlage zugeordnet.

**Markus Eduard** - Der Nordatlantik als Vertiefungsgebiet barometrischer Minima [*Agitur de Atlantico Nordico ac zona valorum infimorum barometricorum*]. 5 Abb., 2 Tab., Ann. d. Hydrogr., LXII, 6, 225-233. Berlin (1934). **a - 1516**

Nach einigen einleitenden Bemerkungen über die bei der Untersuchung der Vertiefung der Zyklonen benutzten Methoden werden hier an Hand Kartogramme und Tabellen mehrere Beispiele der im Jahre 1932 beobachteten zusammenfliessenden Minima mit Angabe der Orte und der Monate, in denen die Minima ihre grösste Tiefe, d. h. unter 740 m. - 720 m., erreicht haben, angeführt. Das Westeuropäische Meer, und zwar das nordwestliche Grenzgebiet mit dem Polarfront, als ein wichtiges Vertiefungsgebiet der barometrischen Minima. Die Ursachen der Vertiefung. Literatur.

**Marteret M. J.** - Mesure des températures [*Mensuræ temperaturæ*]. 23 figs., Sc. Industrie, XVI, 218/221/223, 97-98, 230-236, 329-331. Paris (1933). **a - 1517**

Point de vue pratique. Résumé des nombreux travaux qui se sont succédés et des publications essentielles qui ont paru sur le sujet dans ces derniers temps.

**Marvin Ch. F.** - Recent Advances in Anemometry [*De anemometria eiusque recentioribus progressibus*]. 5 figs., 1 pl., 1 tabl., Monthly Weath. Rev., LXII, 4, 115-120. Washington, D. C. (1934). **a - 1518**

The objects in this paper are: (1) to advocate certain simple and exact methods of testing rotation anemometers; (2) to plead for the publication of original observations by others who test anemometers; and (3) to present in general terms the systematic characteristics of the performance of cup anemometers, illustrated by results from recent test.

**McDonald W. F.** - The Weather of the Atlantic and Pacific Oceans: North Atlantic Ocean [*De atmosphæræ condicionibus Oceani Atlantici et Oceani Pacifici. De Atlantico Nordico*]. num. tabl., Monthly Weath. Rev., 61, 1, 23-25; 2, 51-52; 3, 89-90; 4, 119-120; 5, 147-148; 6, 178-179. Washington, D. C. (1933). **a - 1519**

Data on atmospheric pressure, cyclone, gales, and fog which occurred on the Atlantic. In tables are given the averages departures and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic and its shores, as well as data on ocean gales and storms.

**McDonald W. F.** - Reorganization of Ocean Weather-Records for New Applications [*Ephemerides observationum meteorologicarum. Quæstio de reorganisatione pro novis applicationibus*]. Nat. Res. Counc. Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 97-99. Washington, D. C. (1934). **a - 1520**

Brief account of the work performed by the U. S. Weather Bureau in order to make generally available the tremendous files of accumulated observations of many decades in the Weather Bureau archives. The Marine Division of the Bureau has been enabled to go far towards the reorganization of a total of about five millions of ocean weather-observations so that now the material for any specific area can be reached for study and use.

**Melicchia Andrea** - La meteorologia e la previsione del tempo nelle principali organizzioni europee [*De meteorologia deque præcipuis stationibus europæis pro atmosphæræ condicionibus providendis*]. 2 vol. dattilogr., molte fig., 471 pp. Venezia (1934). **a - 1521**

Relazione su due viaggi di istruzione in Germania, Austria, Polonia, Inghilterra, Belgio, Francia, Svizzera.

**Mennella Cristoforo** - Note e vedute sul divenire cosmico [*Quæstio de cosmologia*]. 3 fig., Universo, 4, 267-278. Firenze (1933). **a - 1522**

Premesse alcune vedute personali, l'A. accenna a Herschell, il fondatore dell'astronomia siderale moderna a Miss Leawitt, a Hertzsprung e si sofferma sui più importanti problemi, tra cui quello fondamentale dell'origine dell'irradiazione stellare.

**Michel W.** - Sur quelques indices aérosynoptiques de la variation des zones bariques [*De variationibus in zonis baricis deque indicibus aëriosynopticis*] (En russe, rés. angl.). tabl. et diagr., Recueil Géophys., V, 3. Léningrad (1932). **a - 1523**

Elaboration des données de montées de ballons-pilotes en Russie et Europe Occidentale dans le but d'étudier les mouvements des couches moyennes de la troposphère et des zones de pression élevées qui pourraient jeter quelque lumière sur les origines et la disparition des cyclones et des anti-cyclones encore très peu connues, vu que les études de ces phénomènes ont porté jusqu'à présent presque exclusivement sur leur parcours effectif.

**Michler H.** - Eigenartige Nebelbildung bei der Insel Hogland [*De anormali quadam formatione nebulosa in insula* Hogland]. Ann. d. Hydrogr., LXII, 9, 392. Berlin (1934). **a - 1524**

Notiz über die am 21. Mai 1934 bei der finnischen Insel Hogland beobachtete Nebelbildung, deren Konturen scharf vom blauen Himmel abgesetzt waren und genau der Form der tatsächlichen Landbildung entsprachen.

**Mitchell C. L.** - Tropical Disturbance of July 21-25, 1934 [*Agitur de tropicali perturbatione a die 21 ad diem 25 mensis Julii 1934*]. Monthly Weath. Rev., LXII, 7, 251. Washington, D. C. (1934). **a - 1525**

Description of a disturbance which was unprecedented, so far as is known, by the fact that it was of extra-tropical origin, but moved south-westward into the Gulf of Mexico and assumed all the characteristics of a disturbance of tropical origin.

**Mitchell C. L.** - Complete Weather-maps of the Northern Hemisphere in Relation to Studies of Movements of Major Air-Masses [*Chartæ meteorologicæ completæ hemisphærium nordicum repræsentantes relate ad motus massarum aëris præcipuarum studendos*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 10-11. Washington, D. C. (1934). **a - 1526**

On hand of data contained in daily weather-maps published by the Deutsche Seewarte and since January 1, 1933, by the Soviet Government, an account is given of the work performed by the U. S. Weather Bureau in order to predict the outbreak of polar air masses, or the more or less stagnant condition of such air-masses, and to make forecasts for a week ahead for Washington D. C. These forecasts verified sufficiently well to indicate the great importance of quite complete Northern Hemisphere weather-maps in identifying and tracing the movements of major air-masses.

**Moeller Fritz** - Ueber Differenzmethoden bei Höhenwinden [*De methodibus differentialibus in ventis altis studendis*]. 1 Taf., 1 Abb., 2 Tab., Ann. d. Hydrogr., LXII, 7, 279-285. Berlin (1934). **a - 1527**

Genauere Betrachtung des Schlusses, zu welchem F. Wagner (s.: « Ann. d. Hydrogr. », LX, 272, 1932) in seiner Untersuchung über die Mittelwertbildung bei Höhenwindbeobachtungen mit der Anwendung der Differenzenmethode auf Vektoren kommt, und zwar, dass für den Wind als Vektor diese Methode unbrauchbar ist. Kritische Betrachtungen zu dem Einwand von H. U. Sverdrup, welcher derselben Meinung wie F. Wagner in Bezug auf die Anwendbarkeit der oben erwähnten Methode ist. Anwendung der skalaren und Differenzenmethode in der Beschreibung der Winde.

**Moeller Fritz** - Die vier Grundrechnungsarten und die Differenzenmethode und eine Anwendung auf die Beständigkeit von Höhenwinden [*De calculis circa stabilitatem ventorum in stratibus superioribus*]. 3 Tab., Ann. d. Hydrogr., LXII, 8, 341-345. Berlin (1934). **a - 1528**

Kritische Beleuchtung der Differenzenmethoden in ihrer Anwendung bei verschiedenen statistischen Untersuchungen mit aerologischem Beobachtungsmaterial.

**Moltschanov P.** - The Study of the Polar Atmosphere as a Result of the Polar Year [*De studenda atmosphæra polari ex operibus peractis perdurante anno polari*] (In Russ., Engl. Summ.). Bull. Arct. Inst., 12, 428-429, 457-458. Léningrad (1933). **a - 1529**

Account of the so-called « Soviet method of atmosphere study », worked out and used for the first time during the Second International Polar Year and based upon radio-sounding of the air. The observations have been performed on five points, i. e.: Franz-Joseph Land, Matotschkin Schar, Dickson Island, Polanoje and Uellen. Brief account of the soundings.

**Monahan R. S. & Pagliuca S.** - The Mount Washington Observatory [*Observatorium in monte* Washington]. Nat. Res. Counc. Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 85-88. Washington, D. C. (1933). **a - 1530**

Foundation of the Observatory for the study of meteorological conditions and associated phenomena on Mount Washington. Personnel, quarters preparations, communication. Regular observations, special observations; auroral observations and atmospheric electricity; radio experiments.

**Mueller Hans** - Ein Schieber zur Berechnung der äquipotentiellen Temperatur [*Agitur de quadam capsula ad æquipotentialem temperaturam calculandam*]. 5 Tab., 1 Taf. a T., Ann. d. Hydrogr., LXII, 7, 292-296. Berlin (1934). **a - 1531**

Nach einigen Betrachtungen über die Nützlichkeit der äquipotentiellen Temperatur bei der Diagnose der Luftmassen zur Wettervorhersage usw. bemerkt Vf., dass eine weite Verbreitung dieses Verfahrens bisher unterblieben ist, da die Berechnung der Daten zu viele Zeit in Anspruch nimmt. Er beschreibt in der vorliegenden Notiz einen praktischen Schieber, dessen Benutzung die Errechnung der erwähnten Daten weitgehend vereinfacht und welcher deswegen sicher zur weiteren Verbreitung der Methode der Luftmassenidentifizierung mit Hilfe der äquipotentiellen Temperatur dienen wird.

**Mügge R.** - Gewitter-Wolken [*Nubes ac tempestates*]. 10 Abb., Nat. u. Mus., LXIII, 9, 304-313. Frankfurt a. M. (1933). **a - 1532**

Entstehung der Haufenwolken und die Voraussetzung dafür. Bildung von Altocumulus-Castellatus-Wolken, ihre Auslösung. Die verschiedenen Wolkenformationen werden an Hand mehrerer Aufnahmen veranschaulicht.

**Murphy Cushman Robert** - Stray Sea Birds and Atlantic Storm Tracks [*Cursus procellarum ac aves migrantes*]. Geogr. Rev., XXIV, 1, 151-152. New York (1934). **a - 1533**

Author considers the relationship between the cases of picking up strictly pelagic birds in inland localities and the birthplace and course of tropical storms. Possibility on hand of data concerned with the occurrence of seabird waifs in eastern North America with contemporary information relating to the antecedents of Atlantic coastal storms, to add measurably to our knowledge of the origin and tracks of such disturbances.

**Musella F.** - Cenni di meteorologia generale e nautica [*De meteorologia generali et nautica*]. 29 fig., Boll. di Pesca, Piscic. e Idrobiol., 3, 285-345. Roma (1933). **a - 1534**

Composizione e proprietà fisiche dell'aria. Radiazione solare. Trasparenza dell'acqua marina. Temperatura dell'aria. Temperatura del mare. Pressione atmosferica. Correnti aeree. Ciclone e anticiclone. Nebulosità. Precipitazioni. Capannina meteorica. Elettricità atmosferica. Fenomeni vari (meteore). Moto ondoso. Cenno sulla teoria della marea. Correnti marine. Ghiacci marini.

**Musella F.** - Le previsioni del tempo e le tempeste [*De procellis ac atmosphæra providenda*]. 11 fig. Boll. di Pesca, Piscic. e Idrobiol., 3, 344-370. Roma (1933). **a - 1535**

Premessi alcuni concetti sulla previsione generale del tempo. l'A. parla del servizio meteorologico a bordo delle navi, dei caratteri del tempo in relazione alle principali configurazioni isobariche, della previsione locale di tempesta e dei segnali di tempesta.

**Musella F.** - Cenni di meteorologia generale e nautica [*De meteorologia generali et nautica*]. (III. Concorso Magistrale marittimo peschereccio). 28 fig., 60 pp., Soc. Tip. A. Manuzio. Ist. Poligr. dello Stato - Libreria. Roma (1933). **a - 1536**

**Musella Francesco** - Anemografo speciale Musella per navi [*De anemographo e systhemate* Musella]. Filotecnica, a. IV, 1, 299-302. Milano (1934). **1 - 1537**

In un precedente articolo, apparso sulla « Rivista Aeronautica », l'A., parlando della determinazione del vento a bordo delle navi, aveva accennato all'Anemografo a sospensione cardanica. In questo articolo l'A. riparla dello stesso apparato in modo più particolare, anche per il fatto che al modello primitivo esperimentato sul piroscafo « Capri ». è stata apportata una piccola modifica per renderlo adatto per la misura delle più alte velocità, sia del vento che delle navi, finora conosciute.

**Namias Jerome** - Some Aspects of the Surface of Subsidence [*De superficie subsedenti*]. 7 figs., Nat. Res. Counc., Trans. Amer. Geoph. Counc., 15th Ann. Meet., Part I, 105-114. Washington, D. C. (1934). **a - 1538**

This paper is a brief report showing a few points of interest in connection with a well-defined surface of subsidence. Several similar cross-sections are being studied minutely with the hope of finally being able to arrive at general conclusions. The situation chosen for illustration is that of October 4 to 9, 1932. An exceptionally slow moving and well-defined front marked the boundary between a transitional Polar Continental airmass and a Tropical Maritime current to the East. The case dealt with represents a front that becomes sharper and sharper because of the continued southward flow of cold air on the western side and northward flow of warm air on the eastern side of the discontinuity.

**Nodon Albert** - Recherches sur l'origine des grands troubles atmosphériques [*Inquisitiones in originem magnarum perturbationum atmosphæricarum*]. Bull. Soc. Océanogr. France, 75, 1326-1327. Paris (1934). **a - 1539**

Dans la présente note l'A. tire quelques conclusions sur la base de son ouvrage publié en 1920 (« Essai d'Astrométéorologie et ses applications à la prévision du temps ») sur les relations entre les actions solaires et les principaux troubles atmosphériques, dont il résulterait qu'une étude méthodique et suivie des foyers électriques solaires serait susceptible d'apporter d'utiles renseignements en géophysique et en météorologie.

**Oellrich H. & Roemer E.** - Nochmals Luv und Lee [*Agitur de navigatione vento secundo et adverso*]. Ann. d. Hydrogr., LX, 11/12, 395. Berlin (1933). **a - 1540**

Vgl. hierzu G. Castens: « Luv. und Lee », Ann. d. Hydrogr. 1933, S. 133 sowie unter dem gleichen Kennwort die Ausführungen von M. Rodewald, ebenda s. 265 ff. Der Vf. der vorliegenden Notiz ist geneigt den Vorschlag von Castens anzunehmen.

**Pagliuca Salvatore** - Mount Washington's Contribution to the Second International Polar Year [*Contributio Observatorii in Monte* Washington *in studia peracta secundo anno polari perdurante*]. 12 figs., 1 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 18-22. Washington, D. C. (1934). **a - 1541**

Account of the work performed at the observatory of Mount Washington in order to cooperate with the International Polar Year Commission. Continuous records of atmospheric pressure, air-temperature, and relative humidity, and of solar and sky radiation obtained by means of standard direct-reading and self-recording instruments. Release of a total of 164 pilot-balloons; measurements of wind and precipitations. Some remarks concerned with the correct interpretation of Mount Washington observations.

**Palagi Arturo** - Ionizzazione atmosferica nei dintorni di Roma [*De jonizatione atmosphœrica apud Romam*]. 2 tabl., 1 graf., Meteor. Prat., 6, 259-263. Perugia (1932). **a - 1542**

Nel settembre 1926 si misurò la ionizzazione atmosferica media nei dintorni di Roma (Villa Spalletti-Rasponi) e poi anche nel centro della città (R. Ufficio Centrale di Meteorologia) e si determinò la variazione media della ionizzazione giornaliera, nelle due località per una settimana circa, onde farne il confronto: i risultati sono dati in due tabelle e in un grafico.

**Patterson J.** - Preliminary Report on the Upper-Air Work Undertaken in Canada During the Second International Polar Year [*Relatio prior de investigationibus in excelsos stratus aërios in regione Canadensi peractis secundo anno polari internationali*] (Abstract). Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 13-14. Washington, D. C. (1934). **a - 1543**

Short account of an intensive observational program carried on by the Meteorological Service of Canada on the temperature and movement of the atmosphere at three stations in Arctic Canada, namely Chesterfield Inlet, Cape Hope's Advance, and Coppermine.

**Peau Etienne** - Observations océanographiques faites de Barry (Angleterre) à l'Archipel de Kerguelen (12 Octobre - 2 Décembre 1923) [*Observationes oceanographicae peractae a* Barry (*Anglia*) *usque ad insulas* Kerguelen]. (Suite; v. les trois « Bull. », précédents). Bull. Amis Inst. Océanogr., XV, 45, 3-4. Le Havre (1933). **a - 1544**

Observations exécutées le 11, 12, 13 et 14 novembre.

**Perlewitz Paul** - Meteorologische Horizontal-Navigation durch Vertikal-Navigation im Luftfahrzeug, insbesondere im Freiballon [*Navigatio horizontalis meteorologica obtenta per navigationem verticalem in apparatu sphœrico, particulatim in sphœrico libero*]. 1 Taf. a T., Ann. d. Hydrogr., LXI, 11/12, 355-365. Berlin (1933). **a - 1545**

Dreidimensionale Navigation, das Luftfahrzeug im Luftstrom (Abtrift), Windänderung mit der Höhe, Beispiele für Vertikalnavigation bei Ziel, Dauer-, Weitfahrten, bei Fahrten im Hochdruckgebiet, bei zeitlichen Aenderungen, im Tief, (im Passat), bei Rekordfahrten, Fuchsjagden, Meeres- und Küstenfahrten. Meteorologische Vertikalnavigation des Segelfliegers.

**Perois** - Pluies et inondations en Afrique Occidentale [*Pluviœ et inundationes in Africa Occidentali*]. 4 fig., Géogr., Air, Terre, Mer, LXI, 3/4, 281-284. Paris (1934). **a - 1546**

Bref compte rendu de la saison des pluies qui a été extrèmement violente en 1934 dans toute l'Afrique Occidentale et au Cameroun. Mesures prises par le Gouverneur de la Côte de Ivoire pour permettre à la lagune Ebrié de se déverser dans la mer. Répercussion sur la navigation des inondations et du jet à la mer de masses d'eau considérables.

**Petterssen Sverre** - Kinematical and Dynamical Properties of the Field of Pressure with Application to Weather Forecasting [*De proprietatibus cynematicis et dynamicis relate ad campum pressionis pro applicationibus atmosphœrœ providendœ*]. 36 figs., 17 tabl., Geofys. Publ., X, 2, 1-92. Oslo (1933). **a - 1547**

The object of this work is to study the inter- relations between the field of pressure on one hand, and the various changes in the future pressure distribution on the other, and show how these relations may be applied to the problems of weather chart analysis and weather forecasting. Definitions and general equations. The displacement of isobars and isallobars. The movement of troughs and wedges. The movement of pressure systems. The movement of fronts. Deepening and filling. Practical examples.

**Pettersson Otto** - Ebb och flod i atmosfären. En studie i geofysik. [*De maris accessibus et recessibus eorumque correlatione cum atmosphœra. Studium quiddam geophysicum*]. (Rés. franç.). 1 pl. h. t., 1 fig., Gtbgs Kungl. Vetensk.- o. Vitterh.-Samh. Handl. Femte Följd., Ser. B., III, 1-12. Göteborg (1934). **a - 1548**

En se référant à son travail précédent (« Interne Gezeitenwellen », Rapp. Proc. Verb. Cons. Int. Expl. Mer LXXXII) l'A. étudie la relation entre la formation des mouvements verticaux dans l'atmosphère et celle des ondes internes de marée dans la mer et si, par conséquent, on peut les calculer selon la même formule. La marée. Discussion sur les courbes de la gravitation de la lune et celles de la pression atmosphérique. L'origine des anticyclones. Résumé et réponse à la critique de M. Brillouin.

**Piatti Vincenzo** - Previsione empirico-scientifica del tempo quotidiano locale [*Provisio empirico-scientifica temporis quotidiani localis*]. 15 fig. f. t., Riv. Cult. Mar., VIII, 3/4, 237-261. Roma (1933). **a - 1549**

Indizi offerti dal barometro e dal termometro. Influenza delle precipitazioni, del vento. Nozioni sulle nebbie e sulle nubi. Consigli.

**Piatti Vincenzo** - Previsione empirico-popolare del tempo quotidiano e medio locali [*Provisio empyrico-popularis temporis quotidiani et medii locali*]. Riv. Cult. Mar., VIII, 11/12, 745-759. Roma (1933). **a - 1550**

Folklore meteorologico. Previsioni sull'aspetto della Luna. Previsioni basate su determinati fenomeni osservati in certi vegetali ed in certi animali.

**Pick W. H.** - A Short Course in Elementary Meteorology. Fourth Edition, completely revised [*De meteorologia elementari. Editio IV$^a$*]. 143 pp., H. M. Stationery Office. London (1933). **a - 1551**

**Platania Giovanni** - Osservazioni di aloni in Napoli nel decennio 1922-1931 [*De alonibus Neapoli observatis a. 1922-1931*]. Ann. R. Ist. Super. Nav., I, 43-46. Napoli (1932). **a - 1552**

L'A. riporta le osservazioni, sui fenomeni alonari, eseguite da lui, in Napoli, nel decennio 1922-1931.

**Platania Giovanni** - Gli isogrammi. Proposte di revisione della terminologia [*De isogrammatis. De terminologia recognoscenda*]. Ann. Ist. Sup. Nav., II, 2. Napoli (1933). **a - 1553**

L'A. prende in esame un gran numero dei termini adoperati in geofisica composti col prefisso « iso », li discute e per alcuni propone modificazioni.

**Poisson Ch.** - Sur l'évolution des tempêtes tropicales [*De procellis tropicalibus earumque progressibus*]. C. R. Acad. Sc., CIIC, 26, 2273-2275. Paris (1934). **a - 1554**

Chargé depuis dix ans, des avertissements de tempêtes dans une des régions à cyclones, l'auteur constate que dans les secteurs maritimes exposés aux tempêtes, les conditions atmosphériques sont réellement variables, pendant que l'on répète souvent que les pays tropicaux jouissent de climats d'une régularité quasi parfaite.

**Prins J. A.** - Latitude Effect of Cosmic Radiation [*Latitudinis effectus in radiationem cosmicam*] 1 fig., Nature, CXXXII, 3342, 781. London (1933). **a - 1555**

More accurate results due to investigations of Clay and Berlage and to measurements of the A. Some particulars given.

**Raethjen P.** - Theorie der Fronten und Zyklonen. Ausblick und Uebersicht [*De cyclonibus eorumque theoria*]. Meteorol. Ztschr., L, 12, 450-454. Braunschweig (1933). **a - 1556**

Vortrag gehalten auf der 18. Versammlung der Deutschen Meteorologischen Gesellschaft im Oktober 1933. Kritische Betrachtung von A. Refsdals revolutionierender Theorie der atmosphärischen Zirkulation. Der Redner stellt den folgenden für die mechanische Behandlung der Wettervorhersage sehr wichtigen Satz auf: Bei sämtlichen Vorgängen der atmosphärischen Zirkulation tritt eine erhebliche Störung des dynamischen Gleichgewichtes nur dann ein, wenn Kondensationen auftreten und feuchtlabile Energie frei wird. Folgende Untersuchungen werden im einzelnen die Gültigkeit dieses Satzes aufzeigen.

**Ranzi Ivo** - Ricerche sulla distribuzione della densità ionica nella ionosfera e sulle sue variazioni [*Inquisitiones in distributionem densitatis jonicæ in jonosphæra eiusque variationes*]. 2 fig., Nuovo Cim., 1, 21-36. Bologna (1933). **a - 1557**

L'A., in base ai risultati di una numerosa serie di misure dell'altezza apparente di riflessione di onde elettromagnetiche di lunghezza compresa fra 40 e 100 metri, riesce a stabilire una relazione approssimata fra altezza reale e altezza apparente di riflessione e quindi la legge approssimata di distribuzione della densità elettronica con l'altezza. Egli mette altresì in rilievo il fatto, di frequente osservato, dell'aumento che può subire la densità ionica massima durante la notte. In base alle correlazioni meteorologiche, lunari e magnetiche osservate in relazione con tali variazioni della densità ionica, l'A. ammette l'arrivo, anche nella parte del globo in ombra, di radiazioni elettroniche solari deviate dal campo magnetico terrestre.

**Ray C. L.** - Long-Range Forecasts in Puerto Rico [*De prædictionibus condicionum atmosphæricarum maximo spatio temporis in* Porto-Rico]. 6 figs., 3 tabl., Monthly Weath. Rev., LXII, 7, 235-240. Washington, D. C. (1934). **a - 1558**

A study with reference to the table of monthly surface-water temperatures of the Caribbean Sea and Florida Straits, 1920-1932 which emphasizes their close correlation with the surface air temperatures of windward coast stations in the area. Comparison of the annual temperatures of the period. The maintenance of positive or negative trends with respect to the normal, for long periods. An attempt to trace the cause of the changes occurring at periodic intervals in the temperature trend with respect to the normal.

**Refsdal Anfinn** - Zur Thermodynamik der Atmosphäre [*De thermodynamica atmosphæræ*]. 2 Abb., Meteorol. Ztschr., L, 6, 212-218. Braunschweig (1933). **a - 1559**

Die verschiedenen arbeitleistenden Zirkulationen in der Atmosphäre können folgendermassen zusammengefasst werden: 1. Die Zirkulation zwischen Boden und Höhe, welche die energetisch wichtigste ist. 2. Die gezwungene Horizontalzirkulation zwischen Rossbreiten und Pol. 3. Die Zirkulation in der Vertikalebene zwischen höheren und niedrigeren Breiten, welche bisher als die einzige energieleistende Zirkulation betrachtet worden ist. 4. Die periodischen Zirkulationen (Monsune, Land- und Seewind, Berg- und Talwind).

**Reichel E.** - Ueber den Einfluss des Meeres auf Wind, Temperatur und Feuchtigkeit an der Pommerschen Küste [*De maris influentia in ventum, temperaturam, humiditatem in litoribus ad Pomeraniam pertinentibus*]. 3 Tab., 1 Taf. a. T., Ann. d. Hydrogr., LXII, 5, 195-199. Berlin (1934). **a - 1560**

In den vorliegenden Darstellungen sind die regionalen Untersuchungen über die Veränderung des Ganges der meteorologischen Elemente unter dem Einfluss des Meeres bzw. des Windwechsels an der hinterpommerischen Küste geschildert. Es werden die Windverhältnisse der Sommermonate 1930 bis 1932 in Betracht gezogen.

**Riel (van) P. M.** - Surface Temperature in the Northwestern Part of the Atlantic Ocean. (Dutch and Engl. Text) [*De temperatura superficiali in regione nordoccidentali Oceani Atlantici*]. many tabl., and charts, 7 figs., Meded. en Verh., Kon. Ned. Meteorol. Inst., 102, 1-92. 's-Gravenhage (1934). **a - 1561**

This work completes the publication N. 110 of the Meteorological Office at de Bilt finished in 1931 on oceanographical and meteorological observations in the Atlantic with some further details concerning the area of the Newfoundlandbank and the adjacent sea. The observations. Monthly isotherms. The annual range of the surface temperature. Yearly isotherms. General surface circulation. Deviations from the mean temperature. Frequency of the deviations from the monthly mean surface temperature.

**Rodewald Martin** - Luv und Lee [*Supra et sub ventum*]. 1 Abb., Ann. d. Hydrogr., LXI, 8/9, 265-267. Berlin (1933). **a - 1562**

Ergänzung zu den Bemerkungen von G. Castens (« Ann. d. Hydrogr. », S. 133, 1933) über dieses Begriffspaar. Versuche zur Erklärung dieser Begriffe an Hand verschiedener Beispiele. Mangels eines treffenden Ersatzes empfiehlt der Vf. die Begriffe zu behalten.

**Roediger G.** - Höhenströmung und Druckänderung bei Nordweststurmanlagen im Nordseegebiet [*De currentia atmosphærica deque mutatione pressionis pro originibus ventorum a parte nordoccidentali halitantium in Mare Nordicum*]. Meteorol. Ztschr., L, 12, 466-467. Braunschweig (1933). **a-1563**

Vortrag gehalten auf der 18. Versammlung der Deutschen Meteorologischen Gesellschaft im Oktober 1933. Der Redner demonstriert einen Fall vom 30. März 1933, wobei er den starken Druckanstieg im Zusammenhang mit der verstärkten Nordweströmung und dem Stau an der vorgelegten Südweströmung setzt. Diese Untersuchungen sind aber noch nicht abgeschlossen.

**Rossi Bruno** - I risultati della missione scientifica in Eritrea per lo studio dei raggi cosmici [*Resultatus ex navigatione scientifica in Erythræam ad radios cosmicos studendos*]. Ric. Scient., II, 10, 365-368. Roma (1933). **a - 1564**

Si dànno notizie sui risultati conseguiti dalla missione per lo studio dei raggi cosmici, anticipando su una più completa relazione che darà anche una più esauriente interpretazione dei fatti. Essa tratta della dipendenza dell'intensità della radiazione cosmica dalla latitudine geomagnetica; delle esperienze sull'influenza del campo magnetico terrestre sopra la ripartizione di intensità dei raggi cosmici nelle diverse direzioni; fornisce i dati delle misure di assorbimento, di misure sulla produzione di gruppi di corpuscoli secondari nel piombo, di misure dell'intensità complessiva della radiazione cosmica all'Asmara e a Massaua. Contemporaneamente sono state eseguite dal prof. Ranzi osservazioni sullo stato di ionizzazione dell'alta atmosfera, col metodo degli echi.

**Rusinova I. L.** - Observations météorologiques faites à bord du grise-glace « Sibirjakov » pendant l'expédition de 1932 [*Observationes meteorologicæ peractæ in navi glaciei ruptrici* « Sibirjakov » *nomine perdurante expeditione a. 1932*]. (En russe). 1 tabl., Trans. Arct. Inst., X, 131-163. Léningrad (1933). **a - 1565**

Petite note introductive au tableau, qui représente la partie principale de l'ouvrage et qui contient des données sur les observations météorologiques exécutées à bord du briseglace « Sibirjakov » entre le 30 Juillet et le 16 Octobre 1932 dans les mers arctiques.

**Scherhag R.** - Die Entstehung des Ostsee-Orkans vom 8. und 9. Juli 1931. Die Bedeutung von Konvergenz und Divergenz für die Bildung der Hoch- und Tiefdruckgebiete [*De tempestate maris Baltici diebus 8 et 9 Julii 1931. Momentum convergentiae et divergentiae pro formatione regionum, alta et demissa pressione*]. 5 Tab., 1 Taf. a. T., Ann. d. Hydrogr., LXII, 4, 152-162. Berlin (1934). **a - 1566**

Der schwere Sturm vom 9. Juli 1931 verdankte seine Energie den Temperaturgegensätzen zwischen einer warmen Luftmasse und von Westen vorbrechender Kaltluft. Diese breitete sich als Kaltlufttropfen zungenförmig nach Osten aus. An ihrer linken Seite entstand eine Zone mit divergenten Höhenisobaren, wo zugleich der Luftdruck am schnellsten fiel. Die Entstehung dieses Sturmes als Folge divergenter Höhenströmung wird in der vorliegenden Mitteilung roh angedeutet. Sie besteht aus folgenden Absätzen: Die Bodenbeobachtungen. Die Höhenbeobachtungen. Die Divergenz der Isobaren und der Druckfall. Die zyklonale Konvergenz. Die wolkenfreien Räume bei zyklonaler Konvergenz. Die Entstehung des Ostsee-Orkans. Die prognostische Bedeutung des baroklinen Isobarenfeldes.

**Scherhag R.** - Die Bedeutung der Divergenz für die Entstehung der Vb-Depressionen. Aerologische Analyse der Wetterentwicklung vom 17. bis 26. Juli 1930 [*De divergentia eiusque significatione pro formatione depressionum Vb. Analysis meteorologica progressionis meteorologicæ a 17 ad 26 mensis Julii 1930*]. 8 Tab., 2 Taf., Ann. d. Hydrogr., LXII, 10, 397-406. Berlin (1934). **a - 1567**

Eine Untersuchung des Ostsee-Orkans vom 8/9. Juli 1931 (S: « Ann. Hydr. », LXII, S. 152) führte zu dem Ergebnis, dass die ausserordentlich rasche Vertiefung dieser auf der Zugstrasse Vb ziehenden Depression auf eine in der Höhe eingetretenen Divergenz zurückzuführen war, die ihrerseits als Folge eines auf der linken Seite dieses Tiefs vorhandenen Kaltluftsektors eintrat. Diese und andere Beobachtungen eröffnen neue Aussichten für eine aerologischen Wetterprognose, die besonders für den sommerlichen Sturmwarnungsdienst an der deutschen Ostseeküste von Bedeutung sein könnten. In der vorliegenden Arbeit ist die Wetterentwicklung vom 17. bis 26 Juli 1930 synoptisch-aerologisch untersucht worden, um die gemeinsamen Merkmale der beiden Vb-Depressionen herauszuschälen, die sich während dieses Zeitraumes in nur 5tägigem Abstand entwickelten.

**Scherhag R.** - Die Luftdruck- und Temperaturverteilung in der Höhe bei der Bildung des Ostsee-Orkans vom 8/9. Juli 1931. (Folgerungen für die Zyklonenentstehung) [*De distributione pressionis atmosphæricæ et temperaturæ in atmosphæram pro formatione procellae maris Baltici diebus 8/9 Julii 1931. Adiunguntur conclusiones ad origines cyclonum interpretandas*]. Meteorol. Ztschr., L, 12, 467-470. Braunschweig (1933). **a - 1568**

Vortrag gehalten auf der 18. Versammlung der Deutschen Meteorologischen Gesellschaft im Oktober 1933. Der Redner weist auf die Uebereinsstimmung zwischen der Divergenz der Höhenisobaren und dem starken Fall des Luftdruckes hin und formuliert die folgende Regel: Wo die Isothermen divergieren, wird der Druck fallen, wo sie konvergieren, steigt der Druck.

**Schlichting H.** - Kleintrombe [*De parva columna marina*]. Ann. d. Hydrogr., LXII, 8, 347-348. Berlin (1934). **a - 1569**

Beschreibung einer vom Vf. am 19. Mai 1934 in Lübeck am Travegestade um 13 Uhr. 5 M. beobachteten Windhose von ungewöhnlicher Grösse und Dauer.

**Schmidt Wilhelm** - Prüfung von Anemometern auf die Wiedergabe rascher Schwankungen der Windgeschwindigkeit [*De inspectione anemometrorum relate ad registrationem oscillationum celerium velocitatis venti*]. 6 Tab., 1 Taf., Ann. d. Hydrogr., LXII, 8, 326-339. Berlin (1934). **a - 1570**

Ergebnisse der Versuche mit verschiedenen Typen von Anemometern in veränderlichem Luftstrom, bzw. mit Vorrichtungen, die diesem entsprachen. Vergleich zwischen den Wiedergaben von verschiedenen Anemometern.

**Schroeder Gustav** - Klimatologische Witterungsschilderung. N. 28. Seeverkehrsweg: Karibisches Meer [*Atmosphæræ descriptio climatologica. N. 28 Cursus maritimus ad Mare Caraibicum*]. Ann. d. Hydrogr., LXII, 10, 426-427. Berlin (1934). **a - 1571**

Aus der Sammlung des überseeischen meteorologischen Dienstes der Deutschen Seewarte. Verlauf eines Tages der sommerlichen Regenzeit an der atlantischen Küste von Costarica.

**Schubart L.** - Praktische Orkankunde mit Anweisungen zum Manövrieren in Stürmen [*Notiones simplices de tempestatibus cum præceptis de arte navigandi per procellas*]. 111 Abb. i. T., 173 S., Mittler & Sohn, Berlin (1934). **a - 1572**

Der Vf. gibt hier praktische Regeln für Matrosen im Kampfe gegen die Orkane. Der Stoff ist folgendermassen eingeteilt: Allgemeines. Die tropischen Wirbelstürme. Die Schiffsführung bei Wirbelstürmen. Gemässigte Zone. [Literaturverzeichnis.

**Schwabl W.** - Experimentelle Untersuchungen zur allgemeinen Zirkulation der Atmosphäre [*Inquisitiones ad experimentum peractæ in circulationem generalem atmosphæræ*]. 1 Abb., Meteorol. Ztschr., L, 6, 208-212. Braunschweig (1933). **a - 1573**

Die hier mitgeteilten experimentellen Untersuchungen gründen sich auf ähnliche Arbeiten von Vettin und Exner. Zwei verschiedene von der Rotationsgeschwindigkeit und dem Temperaturgefälle abhängige Zirkulationsformen werden gezeigt, von welchen die eine der Zirkulationsform der Passate und Antipassate und die andere der allgemeinen Zirkulation höherer Breiten entspricht.

**Sellerio A.** - Un anemometro derivato dal psicrometro [*De anemometro quodam e psicrometro derivato*]. 4 fig., Politecnico, 549-552. Milano (1933). **a - 1574**

Accennato alla semplicità di costruzione e di maneggio che presenta lo psicometro Danieli modificato da August, l'A. riferisce sulle sue ricerche per poter usare lo stesso apparecchio, con qualche modificazione, come misuratore della velocità dell'aria.

**Semmelhack W.** - Die Staubfälle im nordwest-afrikanischen Gebiet des Atlantischen Ozeans. Zugleich Beitrag zur « Harmattan »-Kunde [*Pluviæ pulverulentæ in regione Africana nordoccidentali Oceani Atlantici*]. 2 Tab., 3 Abb., 1 Taf., Ann. d. Hydrogr., LXII, 7, 273-277. Berlin (1934). **a - 1575**

In der vorliegenden Darstellung sind die in den Jahren 1902 bis 1933 von deutschen Schiffen gemeldeten Staubfälle

in dem in Frage stehenden Gebiet herangezogen worden. Untersuchung der Staubfälle hinsichtlich ihrer Häufigkeit und Verbreitung (Tabellen und Kurven). Schlüssel zum Verständnis des jährlichen Ganges der Häufigkeit an Hand der Luftbewegung über dem nordwest-afrikanischen Festlands- und Meeresgebiet. Die Rolle des Harmattans als Träger der aus dem Saharagebiet stammenden Sand- und Staubmassen. Verschiedene Bedeutungen des Wortes « Harmattan » im Sprachgebrauch des in Guinea lebenden Europäers. « Harmattan » und « Guinea-Harmattan ».

**Shaw Napier** - The Drama of Weather [*De condicionibus meteorologicis*]. ills. & maps., Univ. Press., xiv + 270 pp. Cambridge (1933). **a - 1576**

A book dealing with meteorology for the non-technical readers. In Chapter I the author describes the development of the ideas concerning the weather. Chapters II and III deal with meteorological instruments and with the results derived by their use. In Chapter IV the rhythms of the weather, as presented by monthly means, are discussed, and Chapter V introduces the weather map and illustrates the problem of its use for forecasting.

**Sinjagin A.** - Die Lage der Polarisationsebene am Himmelsgewölbe [*De positione superficiei polarizationis in cælo*]. 20 Abb., Gerl. Beitr. Geoph., XXXVIII, 1, 66-96. Leipzig (1933). **a - 1577**

In der vorliegenden Notiz, welche eine unmittelbare Fortsetzung der vorhergehenden Arbeit des Vf. (s. A. Sinjagin: « Verteilung der atmosphärischen Polarisation », Gerl. Beitr. Geoph., 24, 1929 u. A. Sinjagin: « Ueber die Verteilung der atmosphärischen Polarisation », Gerl. Beitr. Geoph., 27, 1930) bildet, werden die beiden Karten der Isoklinen und « Stromlinien » für die Fälle ⊙ = 0 und ⊙ = π/4 genauer bestimmt und vervollständigt. Sie besteht aus den folgenden Absätzen: 1. Allgemeine Eigenschaften der Isoklinen und « Stromlinien »; 2. Die Isoklinen für den Fall ⊙ = π/4. 3. Die Neutrallinie (Buchsche Kurve).

**Škreb S.** - Die Reduktion des Stationsbarometers auf 0° C. [*De reductione lectionis barometricæ ad 0° C*]. Meteorol. Ztschr., L, 6, 234-237. Braunschweig (1933). **a - 1578**

Unter Hinweisung auf die Angaben von Fuess, Schreiber, und K. Irgens erörtert der Vf. noch einnal diese Frage, um, wenn möglich, Vereinfachungen zu machen und formuliert die folgende Regel: Zur Reduktion des Stationsbarometers mit reduzierter Skala auf 0° C ist der abgelesene Barometerstand um die Höhe des Quecksilbers im Gefäss (auf 10 mm abgerundet). zu erhöhen, und mit diesem Barometerstand ist die Reduktionsgrösse aus der normalen Tafel zu entnehmen (Siehe Antwort von K. Irgens Meteorol. Ztschr. L, 12, 1933).

**Smosarski W.** - Ueber die Polarisation des Himmelslichtes [*De polarizatione lucis cælestis*]. Gerl. Beitr. Geoph., XXXVIII, 1, 97-111. Leipzig (1933). **a - 1579**

Es wird vorausgesetzt, dass die Verteilung der Polarisation auf dem Himmelsgewölbe durch drei zueinander senkrechte Vektoren im Beobachtungspunkte bestimmt ist, und es werden daraus die Formeln für den Polarisationsgrad und für die Lage der Hauptschwingungsebenen der Strahlen des diffusen Lichtes entwickelt. Es wird u. a. der einfache Satz aufgestellt, dass die Hauptschwingungsebenen mit den Symmetralen der zwei Ebenen zusammenfallen sollen, die durch den Strahl und die neutralen Punkte bestimmt sind. Die Formeln werden nach eigenen und fremden Beobachtungsergebnissen geprüft und die Gültigkeitsgrenzen besprochen.

**Stenz Edward** - Ueber Messungen der Wasserdampf-Absorption im ultraroten Sonnenspektrum, ausgeführt an der Mittelmeerküste mit einem Gorczynskischen Spektrographen [*De mensuris absorptionis vaporis aquarum in spectro solari ultrarubro, peractis præter litus Mediterraneum, spectrographi* Gorczynski *auxilio*]. 2 Abb., Meteorol. Ztschr., L, 6, 219-223. Braunschweig (1933). **a - 1580**

Bericht über die während 1926/27 von Gorczynski in Tunesien und die während 1931/32 vom Vf. in Südfrankreich ausgeführten Messungen. Beschreibung des Spektrographen. Bestimmung der atmosphärischen Transmission in den Absorptionsbändern laut der Fowleschen Methode. Tabellarische, vergleichende Angaben über das Verhältnis zwischen dem Wassergehalt und dem Dampfdruck, welche zu gewissen Zeiten an der Mittelmeerküste eine Senkung unter dem normalen Wert aufweisen. (S. auch Bull. de l'Acad. Pol. d. Sc. et des Lettres, April 1932).

**Stetson Harlan T.** - Solar Activity and Radio Reception [*De solis activitate ac radioreceptionibus*]. 5 figs., Monthly Weath Rev., LXI, 1, 1-3. Washington, D. C. (1933). **a - 1581**

Some considerations on new means which has become available of studying the correlation of solar activity with atmospheric phenomena through recent researches on the correlation of sun spots with radio reception. Summary of the available data collected. A hint is also given of the investigation carried on in order to determine what effect, if any, the altitude of the moon may have upon radio reception.

**Stevens A.** - Upper-Air Winds Over Northern Alaska During the Polar Year, August 1932 to August 1933 [*De ventis in stratibus superioribus aëris super Alaskam Septentr. perdurante anno polari 1932/33*]. 3 figs., 2 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 14-18. Washington, D. C. (1934).

(—) See also Monthly Weath. Rev. LXII, 7, 244-247. Washington, D. C. (1934). **a - 1582**

In summary the following facts stand out from this study: (1) The mass-movement of air in the region of northern Alaska is relatively small, as compared with that for the northern part of the United States. (2) Below 3 km., on the average, easterly winds are recorded most frequently, while at higher levels westerly winds prevail. (3) Average wind-velocities for this region, both surface and aloft are 30 to 40 per cent lower than for points in the northern part of the United States. (4) Individual recorded velocities do not deviate greatly from the average. (Author).

**Stevens Albert W.** - Apparatus to Be Carried on the National Geographic Society-Army Air Corps Stratosphere-Flights [*Agitur de apparatu ad volatus stratosphæricos peragendos idoneo per Societatem Geographicam Nationalem ædificato*]. (Abstract). Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 23-24. Washington, D. C. (1934). **a - 1583**

Program and equipment of the proposed stratosphere-flights sponsored by the National Geographic Society and the United States Army Air Corps.

**Stone Robert G.** - The History of Mountain Meteorology in the United States and the Mount Washington Observatory [*De historia meteorologiæ montanæ in Americæ Provinciis Foederatis deque Observatorio in monte* Washington]. Nat. Res. Counc. Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 124-133. Washington, D. C. (1934). **a - 1584**

The author points out the importance of mountain meteorology for the use of its data in synoptic work and in general meteorology and climatology. He then gives a brief historical outline of the development of meteorological observations taken on American mountains and a rather complete bibliographical survey of the work existing on the subject. Particular reference is also made as to the reoccupation of Mount Washington for meteorological purpose in connection of the work of the International Polar Year 1932-33.

**Stüve G. & Mügge R.** - Wolkenbeobachtung und Wettervorhersage [*De nubium observationibus et atmosphæræ provisione*]. 4 Abb., Nat. u. Mus., LXII, 7, 217-223. Frankfurt. a. M. (1933). **a - 1585**

Nach einer kurzen Orientierung über die bis jetzt vorherrschenden Theorien der Wettervorhersage besprechen die Vf. Vf. in einer gemeinverständlichen Form die Entstehung der Wolken, ihre weitere Entwicklung und Verteilung, auch an Hand mehrerer Abbildungen, woraus es möglich ist, gewisse Schlussfolgerungen in Bezug auf das Wetter zu ziehen.

**Sverdrup H. U.** - Meteorology. Part I. Discussion [*De meteorologia. Pars Iª*]. 110 figs., 6 pls., The Norw. North Pol. Expl. « Maud » 1918-1925. Sc. Results., II, 1-331. Bergen (1933). **a - 1586**

The meteorological data discussed here comprise the ordinary meteorological observations as well as the results of the ascents with kites, and captive pilot balloons which have been published in Vol. III of this series.

Brief account of the expedition and observations. I. Upper air observations: Temperature, Wind. II. Temperature: Instruments and methods. III. Pressure: Instruments and methods. Wind: Instruments and methods. V. Humidity of the air: Instruments and methods. VI. Precipitation. VII: Hoar-frost. VIII. Fog. IX. Clouds and cloudiness. X. The circulation of the air. Every part is followed by a discussion. Literature and explanations of tables.

**Swann W. F. G. & C. G. Montgomery** - Cosmic-Ray Nuclear Disintegrations [*Desintegrationes nucleares radiorum cosmicorum*]. Phys. Rev., XLIV, 1, 52-53. Lancaster, Pa. (1933). **a - 1587**

**Tenani M.** - Tabelle per la misura barometrica delle altezze [*Parvæ tabulæ pro mensura barometrica altitudinum*]. (Istituto Idrografico della Regia Marina, N. 3084), 20 pp., Tipogr. dell'Istituto Idrografico della Regia Marina. Genova (1932). **a - 1588**

**Thomas H.** - Wetterkartenkatalog [*Elenchus tabularum meteorologicarum*]. 2 Taf., Meteorol. Ztschr., L, 6, 229-231. Braunschweig (1933). **a - 1589**

Prinzip: Vergleich vorhergehender Wetterlagen um daraus eine Base zur Wettervorhersage zu gewinnen. Material zur Prüfung (in Tabellen wiedergegeben). Bedeutung für die meteorologische Systematik.

**Thornthwaite** - The Climates of the Earth [*De diversis climatis terrestribus*]. 1 sep. map., 2 figs., 1 tabl., Geogr. Rev., XXIII, 3, 433-440. New York (1933). **a - 1590**

Description of a new classification of the climates of the earth which is like that of Köppen being quantitative and attempting to determine the critical climatic limits significant to the distribution of vegetation and also by the fact that it employs a symbolic nomenclature in designating the climatic types. It differs from Köppen's classification by making use of two new climatic concepts, precipitation effectiveness and temperature efficiency. The distribution over the earth of the 32 different climates is shown on the world map reproduced on a separated plate.

**Travniček Ferd.** - Die merkwürdigen säkulären Aenderungen der barometrischen Unruhe und Windgeschwindigkeit von Bremen [*De notandis variationibus secularibus perturbationum barometricarum velocitatisque ventorum, Bremæ*]. 1 Abb., 2 Tab., Ann. d. Hydrogr., LXII, 4, 162-165. Berlin (1934). **a - 1591**

Anschliessend an mehrere seiner früheren Aufsätze, welche gemeinsam die Erforschung atmosphärischer Unruhe zum Ziele hatten und in der allgemeinen Erkenntnis gipfelten, dass der mittlere Turbulenzzustand bodennahre Luftschichten säkular auffallend variert, teilt der Vf. in der vorliegenden Notiz neue Tatsachen mit, die besonders für die deutsche Nordseeküste gelten und hier zum Teil auch bei Seefahrern praktisches Interesse beanspruchen dürften. Bedeutung der ausgeführten Beobachtungen für die Abgabe von Jahresprognosen.

**Tschierske Hilmar** - Die geographische Verbreitung troposphärischer Luftmassen in Europa [*De geographica propagatione aëris massarum tropospæricarum in Europam*]. 12 Kärtchen, 4 Tab., Mitt. Ges. f. Erdkunde, 1931-1932, 171-188. Leipzig (1934). **a - 1592**

1. Die troposphärische Luftmasse als geographisches Objekt. 2. Beziehungen zwischen Luftmassenverbreitung und Temperaturverteilung. 3. Beziehungen zwischen Luftmassenverbreitung und Niederschlagsverhältnissen.

**Vallarta M. S.** - The Interpretation of the Azimuthal Effect of Cosmic Radiation [*De interpretando effectu azimutali radiationis cosmicæ*]. Phys. Rev., XLIV, 1, 1-3. Lancaster, Pa. (1933). **a - 1593**

**Vegard L. & Haraug L.** - The Wavelength of the Green Auroral Line Determined by an Interferometer Method [*De undæ longitudine in linea viridi auroræ per methodum interferometricam determinata*]. 4 figs., 10 tabl., 3 pls., Geofys. Publ., XI, 1, 3-17. Oslo (1934). **a - 1594**

Introduction. Report of the measurements of two quartz etalons. General remarks regarding the procedure followed by the wavelength measurements. Instrumental arrangements. The wavelength of the Green line redetermined from spectrograms taken with a large class prism-spectrograph. Results from interferometer measurements obtained in 1931 and 1932 by means of the 2.5 mm. etalon. Does the auroral line show any Doppler effect? Measurements with the 5 mm. etalon. The sharpness of the interference fringes, its relation to the width of the spectral lines, and the temperature of the auroral region.

**Venturelli L.** - Contatti di masse d'aria calda e d'aria fredda nella atmosfera in relazione alla situazione barica [*Agitur de contactibus inter massas aëris calidi ac frigidi in atmosphæra pro condicione barica*]. Atti R. Ist. Veneto Lett., Sc. ed Arti, XCIII, disp. VI, 731-867. Venezia (1933-34). **a - 1595**

L'autore esamina la distribuzione verticale della temperatura in una zona sufficientemente estesa e in un numero abbastanza grande di casi, per vedere se si possa realmente parlare di discontinuità nella distribuzione verticale della temperatura nella libera atmosfera e quale significato sia da attribuire a questa eventuale discontinuità.

**Vercelli Francesco** - L'aria nella natura e nella vita [*De atmosphæra pro natura et vita*]. 605 fig., 17 tav., xv + 711 pp., Tip. Sociale Torinese, Unione Tipogr. Editr. Torinese. Torino (1933). **a - 1596**

L'atmosfera, costituzione, genesi e confini. La pressione dell'aria. Temperatura e termometri; energia raggiante. I regolatori della temperatura dell'aria; le radiazioni solari, terrestri e atmosferiche. Fattori dinamici della temperatura ed equilibrio dell'aria. Troposfera e Stratosfera. Il moto dell'aria; principi generali; classificazione dei venti. Aria e acqua; umidità, evaporazione, condensazione. Meteore acquee. Circolazione atmosferica e sue perturbazioni. Cicloni e anticicloni; tempeste e temporali. Fluttuazioni e correlazioni meteorologiche. Previsione del tempo. Fattori climatici e variazioni dei climi. Aria e luce. Aria e suono. Aria ed elettricità. Aria e vita: principi di bioclimatologia e di meteorologia. Aria e suolo: ambiente di vita dei vegetali. Utilizzazioni dell'aria. Teorie del più leggero e del più pesante dell'aria. Aviazione e aeronautica. Bibliografia. Indice alfabetico delle materie.

**Vercelli Francesco** - Le nuove vedute sulla composizione dell'atmosfera [*De atmosphærica compositione. Cogitationes novæ*]. Ric. Scient., I, 3, 133-139. Roma (1933). **a - 1597**

Il problema della composizione dell'aria, negli strati presso il suolo e nelle alte zone inaccessibili a dirette determinazioni, viene esaminato alla luce dei più recenti dati di osservazione e delle vedute teoriche che si vanno affermando. Risulta che molte fra le valutazioni accettate in passato perdono ormai ogni consistenza; si è indotti invece ad accettare altre stime che meglio si accordano con lo stato attuale delle nostre conoscenze.

**Voigts Heinrich** - Zum Luftkörperklima der Lübecker Bucht [*De influentia aëris componentium in clima Sinus Lubecæ*]. 4 Abb., 2 Tab., Meteorol. Ztschr., L, 12, 498-503. Braunschweig (1933). **a - 1598**

Vortrag gehalten auf der 18. Versammlung der Deutschen Meteorologischen Gesellschaft im Oktober 1933. Nach einigen einleitenden Worten über den Luftkörperkatalog behandelt der Redner das Gesamtbild des Einflusses der Luftkörper im Vergleich mit dem der einzelnen Hauptperioden des Jahres, die Eigenschaften der einzelnen Luftkörper, den Zusammenhang zwischen Luftkörper und Strahlung und die neutralen Punkte bei Sonnenhöhe (in Tabellen ausgedrückt), die Aufeinanderfolge und schliesslich die klimatopsykologischen und phänologischen Wirkungen der Luftkörper.

**Wagner Fritz** - Die meteorologischen Beobachtungen während der Einweisungsfahrt für die Höhenwindmessstelle F nach dem La Plata im Frühjahr 1931 [*De observationibus meteorologicis peractis inter navigationem præfectos nauticos docendi causa susceptam, relate ad novam stationem ad ventorum in altis stratibus mensuras persolvendas idoneam secundum flumen* La Plata]. 6 Textabb., 5 Taf., 3 Tab., Aus d. Arch. d. Dtsch. Seewarte, LII, 3, 1-52. Hamburg (1933). **a - 1599**

Die durch die Deutsche Seewarte in den Atlantischen Ozean eingeführte Beobachtungssystem über Höhenwindmessungen ist im Frühjahr 1931 um noch eine Höhenwindmessstelle F erweitert worden. 1. Die Höhenmessstelle F auf D. « Sierra Ventana ». II. Der Reiseverlauf der Einweisungsfahrt F. III. Die Höhenwindbeobachtungen. IV. Die Einwirkung der atlantischen Inseln auf das Stromfeld und das Luftdruckfeld.

**Wanssowitsch A. L.** - Das Nebelregime des Weissen Meeres und seiner nächsten Umgebung [*De nebularum regimine in Mari Albo regionibusque adiacentibus*] (In russ., dtsch., Rés.). 1 Taf., 9 Tab., Mém. Inst. Hydrol., IX, 67-87. Léningrad (1933). **a - 1600**

Versuch die etwas eigenartigen hydrometeorologischen Verhältnisse der Nebelbildung auf dem Weissen Meere zu erklären. Es werden die Zahl der Nebeltage für 15 Stationen von 1906 bis 1915 angegeben, sowie die jährlichen, jahreszeitlichen, monatlichen und täglichen Perioden dieser Tage. Es werden auch die Richtung und Geschwindigkeit der Winde, welche am häufigsten das Entstehen des Nebels fördern und begleiten, angedeutet. Es ist ein Vergleich zwischen der Dauer des Nebels auf den verschiedenen Stationen gemacht worden, und zwar in der Nähe und in einer grösseren Entfernung von der Küste. Die Angaben über die Dunsterscheinungen im Gebiete des Weissen Meeres sind in einer Bearbeitung wiedergegeben. Ausserdem, in dem Abschnitte « Luft- und Wassertemperaturen », wird der durch die Differenz der beiden Temperaturen hervorgerufene Nebel behandelt und einige Vermutungen über die im Frühling, Sommer und Herbst enstehenden Land- und Küstennebel am Weissen Meer ausgesprochen.

**Wasserfall K. F.** - Praktische Versuche mit langsichtigen Wettervoraussagen [*Experientiæ practicæ ex quibus prognosis maximo spatio temporis deducere fas est*]. 5 Abb., 1 Tab., Meteorol. Ztschr., L, 9, 331-337. Braunschweig (1933). **a - 1601**

Unter Hinweisung auf seine Arbeiten (siehe « Geofys. Publ. V, 3, und 10, IX, 2) betont der Vf. in der Einleitung den engeren Zusammenhang zwischen solaren und terrestren Phänomenen und teilt dann seine mittels der Koch-Blanfordschen Methode behandelten Daten mit: Die achtmonatliche Welle. Die zweijährige Welle und ihren Zusammenhang mit der achtmonatlichen. Praktischer Nutzen dieser Untersuchung. Die zusammengesetzte acht- und elfjährige Periodenvariation.

**Wegener Kurt** - Der Schwere-Wind [*Ventus gravis*]. Ann. d. Hydrogr., LXII, 7, 285-288. Berlin (1934). **a - 1602**

A. Beobachtungen: Folgende Erscheinung, welche die Beobachter übereinstimmend auf allen vereisten Landflächen der Polargebiete gefunden haben: Der Wind bläst im Sommer und Winter vom Eis herab, um etwa 45° abgelenkt, offenbar durch die scheinbare Ablenkungsbeschleunigung der Erddrehung. B. Deutung des Problems: Untersuchung über die Eigenschaften eines Schwere-Windes im Gegensatz zum Gradientwind und über das Vorkommen dieser Eigenschaften bei dem eindrucksvollen, regelmässigen Bodenwind der Polargebiete. Die Meinung verschiedener Beobachter, welche das Problem untersucht haben.

**Weightman R. Hanson** - Comments on the General Circulation [*Cogitationes de circulatione generali*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr., 27-29, 1933, 106-108. Washington, D. C. (1933). **a - 1603**

These comments are given as a discussion for the item proposed by the American Geophysical Union for the agenda of the Lisbon Assembly and concern especially the increase and decrease in the central pressure of high-pressure areas or anticyclones, the larger-scale operations, probably involving both the northern and southern hemispheres and the seasonal correlation of conditions in widely separate regions.

**Weightman R. Hanson** - Preliminary Report on Relationship Between Temperatures in the United States and Precedent Pressures Outside the United States [*Relatio prior de correlatione inter temperaturas Provinciarum Foederatarum Americæ et pressiones præcedentes extra Status foederatos*]. Nat. Res. Counc. Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 12-13. Washington, D. C. (1934). **a - 1604**

Brief account of the work performed by the U. S. Weather Bureau in order to solve the problem of long-range forecasting by associating weather in one locality with antecedent condition in some other distant region, as was done by Sir Gilbert Walker in the monsoon-forecast for India. For the purpose of the present investigation the United States were divided into twelve districts and comparisons were made by means of correlation-coefficients and thus far more than 5000 coefficients have been worked out. The results of this investigation will be published in some details in the Monthly Weather Review.

**Wentstrom William H.** - Radiometeorography as Applied to Unmanned Balloons [*De radiometeorographia eiusque applicationibus in sphæricis sine pilotis*]. 3 figs., 2 tabl., Monthly Weath. Rev., LXII, 7, 221-231. Washington, D. C. (1934). **a - 1605**

After a brief summary of the three methods of air-sounding which are in wide present use, the author deals with (*a*) the historical development of radio pilot balloons and radio sounding balloons, (*b*) with the possibilities of improving the present state of balloon radiometeorography and (*c*) with the evaluation of radio balloons in terms of their probable future usefulness.

**Wexler H.** - A Comparison of the Linke and Ångström Measures of Atmospheric Turbidity and Their Application to North America Air Masses [*Comparatio mensurarum turbiditatis atmosphæricæ a* Linke *et* Ångström *peractarum earumque applicatio ad aëris massas in America Nordica*]. 2 figs., 2 tabl., Nat. Res. Counc., Trans. Amer.

Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 91-99. Washington, D. C. (1933). **a - 1606**

After having put into evidence that the problem of defining an adequate expression for the measure of atmospheric turbidity is a difficult one and that as yet no suitable expression has been found, the author gives a summary of the work performed by various scholars in their attempt to define a turbidity-measure which would obey the requirements he formulates. In his conclusions he gives his opinion concerning the relative values of the Linke and Ångström measures.

**Wiese W.** - Meteorologische Beobachtungen ausgeführt an Bord des Eisbrechers « Sedow » im Jahre 1930 [*Observationes meteorologicæ peractæ in navi glaciei-ruptrici* « Sedow » *nomine a. 1930*]. (In russ.). 1 Taf. a. T., Sc. Res. Arct. Exped. on the « Sedow » in 1930; Hydrolog. & Metoorol., Trans. Arct. Inst., I, 139-150. Leningrad (1933). **a - 1607**

Zusammenfassende, in einer Tafel vereinigte Wiedergabe der im Sommer 1930 während der arktischen Expedition von dem Eisbrecher « Sedow » ausgeführten meteorologischen Beobachtungen.

**Wiese W. J.** - Meteorologische Beobachtungen [*Observationes meteorologicæ*] (In russ.). 1 Tab., Trans. Arct. Inst., VI, 33-40. Leningrad (1933). **a - 1608**

Tabelle der Ergebnisse von meteorologischen Beobachtungen (Luftdruck, Wind, Temperatur, Feuchtigkeit, Bewölkung, Art der Wolken), welche an Bord des Eisbrechers « Malygin » während seiner Fahrt nach Franz-Joseph Land im Sommer 1931 ausgeführt worden sind.

**Willett H. C.** - American Air Mass Properties [*De præcipuitatibus massæ aëriæ americanæ*]. Mass. Inst. Technol. & Woods Hole Oceanogr. Inst., Pap. Phys. Oceanogr. II, 2. Woods Hole, Mass. (1933). (—) (See also: Phil. E Church: « A New Viewpoint in Climatology », « Geogr. Rev. », XXIV, 1, 154-156. Washington (1934). **a - 1609**

The author illustrates a new method of the study of meteorology and climatology of America. He treats the types of air masses which made their appearance during the opposite seasons of December 1929-March 1930 and July-August 1930. A careful analysis of the properties of each type of air mass is made. The paper gives a clear conception of the types of weather and the underlying factors of the various types of climate from the viewpoint of air-mass analysis.

**Willett H. C.** - Some Interesting Features of Our Warm and Cold Waves [*De notandis rebus relate ad undas calidas ac frigidas*]. Nat. Res. Counc. Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 80-84. Washington, D. C. (1933). **a - 1610**

The author discusses the properties of the most important American air-masses, which are the polar continental (typical cold wave) and the tropical maritime (warm Gulf air). He hopes, if he eventually can get satisfactory aerological material, to carry out the more difficult investigation of frontal structure and of the generation and movement of American cyclonic disturbances. Results of the aerological observations at Ellendale and Boston. Explanation of the radical difference between those data. Importance of the conditional instability for the weather-forecasting.

**Willett H. C.** - The Use of Aerological Observations in Weather-Forecasting [*De utilitate percipienda ex aërologicis observationibus coelo providendo*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 7-10. Washington, D. C. (1934). **a - 1611**

After some general remarks concerned with the use of the so-called polar-front or air-mass analysis methods of weather-map analysis and weather-forecastings, the author points out that the technique of application of these methods to the daily synoptic routine, in the preparation of weather-forecast, still falls far short of the maximum possible effectiveness. He illustrates then briefly the two essentially simple concepts, on which those methods are based and indicates the two main problems involved in the application of those methods, i. e. (1) to develop a quick practical method for the daily routine analysis of the data for use in preparing the regular forecast, and (2) to develop methods for the thorough investigation, in the light of all obtainable data of meteorological conditions of particular interest.

**Woerner H.** - Beziehungen zwischen Wassertemperatur und Luftdruckverteilung auf dem Nordatlantischen Ozean in den Jahren 1932 und 1933 [*Correlationes inter aquæ temperaturam et pressionem barometricam in Atlantico Nordico a. 1932 et 1933*]. 2 Taf., Ann. d. Hydrogr., LXII, 11, 445-450. Berlin (1934). **a - 1612**

Ergebnisse von Untersuchungen, an Hand eines ziemlich reichen Beobachtungsmateriales, wie weit Beziehungen zwischen dem Luftdruck und der Wassertemperatur in den Jahren 1932 und 1933 auf dem Nordatlantischen Ozean bestanden haben. Es hat sich kein Einfluss der Wassertemperaturverteilung auf die entsprechende Luftdruckverteilung nachweisen lassen. Dagegen ist ein Einfluss der Luftdruckverteilung mittels der durch sie bedingten Luftströmung auf die Wassertemperatur in verschiedenen Fällen nachweisbar.

**Zanon Francesco Saverio** - Osservatorio Geofisico del Seminario Patriarcale di Venezia. Bollettino mensile [*Observatorium Geophysicum Seminarii Patriarcalis Veneti. Bulletinus menstruus*]. Atti R. Ist. Ven. Sc., Lett. ed Arti, XCII, 7, 791. Venezia (1932-33). **a - 1613**

Sono riportate le osservazioni meteorologiche e quelle geodinamiche eseguite nei mesi di gennaio, febbraio e marzo 1932 in detto Osservatorio.

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**Comité Technique de Navigation et de Génie** - Baromètre anéroïde de précision. Système ANERA [*De barometro aneroidico perexacto e systhemate* ANERA]. 3 fig., Rech. & Invent., 233, 45-46. Levallois-Péreire (Seine) (1934). **a - 1614**

Après des considérations sur les procédés généralement employés pour la « remise au 0 de l'aiguille » du baromètre anéroïde, l'A. donne une description de la structure et du fonctionnement du baromètre « Anera » qui présente l'avantage d'être plus sensible et plus précis des autres baromètres anéroïdes existants.

**Deutsche Seewarte** - Meereskundliche Beobachtungen auf deutschen Feuerschiffen der Nord- und Ostsee. Jahr 1932 [*Observationes oceanographicæ peractæ in navibus pharum ferentibus in mari Nordico et in mari Baltico a. 1932*]. zahlr. Tab., 63 pp., Hammerick & Lessner in Altona. Hamburg (1934). **a - 1615**

Das vorliegende Heft setzt die 1928 begonnene Reihe dieser Veröffentlichung fort. Verzeichnis der Beobachtungsschiffe: geographische Lage, Wassertiefe, Missweisung, Zeit der Beobachtungen. Beobachtungen in Bezug auf Wind: Strom, Stromkenterungs-zeiten, T° C, X ‰ sind für alle Schiffe in Tabellen wiedergegeben. Temperatur- und Salzgehaltsbeobachtungen in resp. 20, 19 und 0 m. Tiefe sind für einige Feuerschiffe angegeben.

**Glavnaja Gheofisitcheskaja Observatorija** (Observatoire Géophysique Central) - Observations météorologiques de la Station Polaire sur la Terre de François-Joseph dans la baie Tikhajj (Calme) Hivernage 1930-1931 [*Observationes meteorologicæ peractæ a Statione polari in Terra Francisci Josephi* (*in baja* Tikhaia)]. 51 pp. Léningrad (1933). **a - 1616**

**Koninklijk Nederlandsch Meteorologisch Instituut** - Het Klimaat van Nederland [*De climate in Hollandia*]. Ills., 101 pp., 34a. De Bilt (1933).
**a - 1617**

**Observatoire de Zi-Ka-Wei** - Bulletin des observations. Distribution de la pluie en Chine à 198 stations [*Observationum ephemeris. Quæstio de distributione pluviæ in Sinis ex observationibus peractis a 198 stationibus*]. xi + 202 pp., LVI, An. 1930, Miss. Cathol., Orphelinat de T'ou-sé-wé. Changhai (1933).
**a - 1618**

**Oficina Meteorologica de Chile** - Annuario Meteorologico de 1931 [*Annuarium meteorologicum a. 1931*]. tabl., Sección Climatologia, Publ. 44, 7-152. Chile (1934).
**a - 1619**

Introducción. Resumen de Arica, Iquique, Antofagasta, Refresco, Taltal, Potrerilles, Caldera, Copiapo, Serena, Punta, Tortuga, Ovalle, Zapallar, Jahuel, Los Andes, Quillota, Punta Angeles, Santiago, Isla Juan Fernàndez, El Teniente, San Fernando, Curico, Constitución, Talca, Punta Carranza, Linares, Cauquenes, Punta Tumbes, Concepción, Punta Lavapie, Lebu, Angol (El Vergel), Contulmo, Traiguen, Isla Mocha, Lonquimay, Temuco, Puerto Dominguez, Valdivia, Punta Galera, Rio Bueno, Frutillar, Puerto Montt, Maullin, Punta Corona, Isla Guafo, Cabo Raper, Dungeness, Evangelistas, Magallanes, San Isidro. Resùmenes Anuales, Lluvias diarias, Resumen Anual.

**Panstwowy Institut Meteorologiczny** - Wiadomosci meteorologiczne i hydrograficzne (Mensuel) [*Ephemeris meteorologica et hydrographica*]. Warszawa (1932).
**a - 1620**

**Polar Year Commission of the International Meteorological Organization at Copenhagen** - Abstracts of Resolutions Passed by the - (May 1933) [*Sententiæ sumptæ a Commissione. Compendium*]. Terr. Magn., XXXVIII, 3, 243-245. Baltimore, Md. (1933).
**a - 1621**

**Service Météorologique (Azores)** - Résumé d'observations de 1929 [*Observationum a. 1929 compendium*]. 22 pp., Impr. Nat. Lisbonne (1932).
**a - 1622**

**Service Météorologique des Açores** (Ponta Delgada-Açôres) - Résumé d'observations de 1930 [*Observationum a. 1930 compendium*]. 16 tabl., Impr. Nat., 2-22. Lisbonne (1933).
**a - 1623**

Données tabulaires sur les observations exécutées.

**Service Météorologique des Açores** - Résumé des observations de 1931 [*Observationum a. 1931 compendium*]. Tabl., Impr. Nat., 2-22. Lisbonne (1934).
**a - 1624**

Tableaux contenant les résultats des observations sur la pression barométrique, la température, l'humidité, l'état général de l'atmosphère et les vents exécutées à quatre stations du Service Météorologique, sur la variation diurne de la pression atmosphérique pendant l'année 1931, des enregistrements séismiques à Ponta Delgada, des observations magnétiques, pluviométriques, marégraphiques, et des mesures des températures à diverses profondeurs prises à l'Observatoire Magnétique de S. Miguel, ainsi que des lancements de ballons-pilotes à Angra.

**Statens Meteorologisk-Hydrografiska Anstalt** - Månadsöversikt över väderlek och vattentillgång jämte anstaltens årsberättelse [*Relatio menstrua condicionum meteorologicarum et livelli aquarum, cum relatione annua ab Instituto redacta*]. num. tav., Årsbok 1933, 15, 1-90. Stockholm (1934).
**a - 1625**

Per ogni mese è dato un resoconto riassuntivo sulle condizioni meteorologiche: massima, minima pressioni atmosferiche, vento, temperatura, precipitazione, livello del mare; condizioni di ghiaccio nei porti, aurora boreale. Inoltre vi sono tavole indicanti valori medi e normali della pressione atmosferica, dell'irradiazione solare, della temperatura e della precipitazione, direzione e forza del vento, livello medio, massimo e minimo del mare, scandagli marini ecc. Come appendice è attaccato il rapporto annuale del 1933 dell'Istituto meteorologico-idrografico riguardante personale, osservazioni eseguite, ispezioni, servizio meteorologico, rapporti con istituti esteri, segnali di tempesta, rapporti sulle condizioni di ghiaccio, ricerche aerologiche, registrazioni delle irradiazioni, la Stazione delle scienze naturali di Abisko, congressi ai quali hanno partecipato i collaboratori dell'Istituto, pubblicazioni e biblioteca, economia.

**Ufficio (R.) Meteorologico - Governo della Tripolitania** - Bollettino Meteorologico della Tripolitania 1931 [*Ephemeris meteorologica Tripolitaniæ a. 1931*]. N. 13. Riassunto delle Osservazioni. 144 pp., Stab. Poligrafico Editoriale Plinio Maggi. Tripoli (1933).
**a - 1626**

**U. S. Department of Agriculture. Weather Bureau** - Report of the Chief of the Weather Bureau, 1931-32 [*Relatio præfecti Offici Meteorologici a. 1931-32*]. 4 charts, num. tabl., U. S. Govmt. Print. Off., ii - iv, 3-129. Washington, D. C. (1933).
**a - 1627**

Part I. Administrative report omitted in the present report. Part II. General summary of the weather conditions in the United States during the year 1931, with charts. Part III. Climatology: Monthly and annual meteorological summaries, 1931.

**U. S. Department of Agriculture - Weather Bureau** - Report of the Chief of the Weather Bureau. 1932-33 [*Relatio præfecti Officii Meteorologici a. 1932-33*]. 3 charts, num. tabl., U. S. Govmt. Print. Off., 1-138. Washington, D. C. (1933).
**a - 1628**

Part I: Administrative report. Part II. General Summary of the weather conditions in the United States, by months, during the year 1932. Part III. Climatology: Monthly and annual meteorological summaries, 1932. Charts of temperature and precipitation, 1932.

**U. S. Weather Bureau** - Ocean Gales and Storms, January 1934 [*De oceanicis procellis ac tempestatibus. Mense Januario 1934*]. 1 table, Monthly Weath. Rev., 62, 1, 29. Washington, D. C. (1934).
**a - 1629**

Statistic statements, on hand of information from ships in navigation for the North Atlantic and the North Pacific Oceans.

**U. S. Weather Bureau** - Climatological Tables [*Tabulæ climatologicæ*]. 3 tabl., 9 charts, Monthly Weath. Rev., 62, 1, 31-37. Washington, D. C. (1934).
**a - 1630**

Condensed climatological summary containing data provided by about 179 Weather Bureau Stations, and about 37 stations of the Canadian Meteorological Service. The following charts complete the statements: Monthly temperature departures, Tracks of centers of anticyclones. Tracks of centers of cyclones. Percentage of clean sky between sunset and sunrise. Total precipitation. Isobars at sea level, and isotherms at surface; prevailing winds. Total snowfall. North Atlantic Weather Maps of particular days.

**Weather Bureau Forecast Division** - Plan for Direct Call to Ships by Radio for Weather Reports during Hurricane Season [*De signalationibus radiometeorologicis pro navibus*]. 1 table, Monthly Weath. Rev., 61, 5, 142-143. Washington, D. C. (1933). **a - 1631**

Program which provides weather reports twice a day throughout the hurricane season from a number of ships known to traverse the hurricane districts more or less regularly in order to assure the receipt of a maximum number of reports.

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**An.** - L'influence solaire et les progrès de la météorologie [*De solis influentia et progressibus meteorologicis*]. Bull. Soc. Océanogr. France, 72, 1278. Paris (1933). **a - 1632**

Conclusions du livre paru sous le même titre et dû à la plume de M. Henry Mémery qui représentent les résultats de cinquante années d'observations solaires et météorologiques et qui reconnaissent dans le soleil la véritable cause des variations et des anomalies atmosphériques.

**An.** - Air Currents in the Bay of Gibraltar [*De aëris currentiis in Sinu Gaditano*]. Meteorol. Mag., Febr. London (1934). **a - 1633**

Laboratory experiments to study the behaviour of air currents against a model of the Rock of Gibraltar. The studies were undertaken to avoid accidents to aircrafts in lee of the Rock. Results of the experiments at the National Physical Laboratory.

**An.** - The New Weather Forecast Program [*Ratio nova atmosphæræ providendæ*]. Science, LXXIX, 2054, 424. New York (1934). **a - 1634**

**An.** - Meteorology. Part I: Discussion; Part II: Tables [*Meteorologia. Pars Iª: Discussio. Pars altera: Tabulæ*]. 110 figs., 6 pls., Sc. Res. Norw. Exped., w. the «Maud», 1918-1925. II, III. Bergen (1933). **a - 1635**

## Glacies marina.

**Ahlmann W:son Hans** - Present Glaciation round the Norwegian Sea. Part. X of Scientific Results of the Swedish-Norwegian Arctic Expedition in the Summer of 1931 [*De glacie circum mare Norvegum. Pars Xª resultatuum scientificorum ex arctica expeditione norvegico-suetia æstate 1931*]. 6 figs., Geogr. Ann., XV, 4, 316-348. Stockholm (1933). **a - 1636**

A) Altitude of the Firn Line and Glaciation Limit: Svalbard. Beeren Island. The Scandinavian Peninsula. Scotland. Iceland. Jan Mayen. Greenland; B) Accumulation and ablation at the Firn Line and Glaciation Limit. Conclusional remarks as to the intensity of solid precipitation and ablation accumulation with regard to maritime and continental climate. Comparison with Monte Rosa.

**Ångström Anders** - Scientific Results of the Swedish-Norwegian Arctic Expedition in the Summer of 1931. On the Dependence of Ablation on Air Temperature, Radiation and Wind [*Resultatus scientifici ex arctica navigatione Suetio-Norvegica æstate 1931. De dependentia ablationis ab aëris temperatura, radiatione et vento*]. 2 figs., Geogr. Ann., XV, 4, 264-271. Stockholm (1933). **a - 1637**

Analytical study of the chief factors influencing ablation, i. e. radiation and the convection through the air. Detailed material of observations. Bibliography.

**Ardley R. A. B. & Nelson A. L.** - Icebergs in the South Atlantic [*Burgundiones per Atlanticum merid.*]. 1 fig., Mar. Obs., XI, 114, 51-53. London (1934). **a - 1638**

Description and location of icebergs and their drift in the South Atlantic.

**Arnold-Alabieff W.** - Die Eisdecke des Finnischen Meerbusens nach Untersuchungen an Bord der russischen Eisbrecher 1922-1929. (Eine Strukturbeschreibung) [*Tegumentum glaciatum in Sinu Finnico ex investigationibus peractis in navibus glaciei-ruptricibus Russis a. 1922-1929. Descriptio structuræ*]. 12 Abb., Int. Rev. d. ges. Hydrobiol. u. Hydrogr., XXVIII, 1/2, 68-89. Leipzig (1932). **a - 1639**

Aeltere literarische Daten und Charakter der Forschungen vom Bord der Eisbrecher. Kristallklares Eis (Kerneis). Trübes, geschichtetes Eis. Die Einschliessungen im Eise und ihre Verbreitung: die Farbe des Eises, anorganische und organische Bestandteile, Vergleich ihrer Verteilung. Möglichkeit aus den eingeschlossenen Planktonformen den Ursprung der Eisbildungen herzuleiten.

**Essipov V.** - Le Eastern Arctic Patrol canadien en 1933 et le sort du Dr. Krüger [*Servitium pro inspectione glaciei in regione Canadensi Orientali a. 1933. Agitur etiam de fortuna et casibus Doctoris* Krüger] (En russe). Bull. Arct. Inst., 5, 234-235. Léningrad (1934). **a - 1640**

Compte rendu de l'expédition organisée par le Gouvernement Canadien pour l'inspection des bureaux de poste et des missions dans la partie orientale du Kamtchatka arctique sous la direction du Major McKead, et qui devait aussi organiser des recherches de l'explorateur allemand Krüger et de son compagnon le danois A. R. Bjare.

**Granqvist Gunnar** - Översikt av isarna vintern 1932-33 [*Relatio de glaciei condicionibus hieme 1932/23*] (Dtsch. Ref.). 20 Abb., Tab., Havsforskninst. Skr., 87, 1-42. Helsinki (1933). **a - 1641**

Die Ergebnisse der Beobachtungen in Bezug auf die Eisverhältnisse im Winter 1932/33 an den Küsten Finnlands sind in Uebersichtskarten und Tabellen wiedergegeben. Die festen Beobachtungsorte. Orientierender Ueberblick über die Eisverhältnisse: mittlere Temperatur der Luft, Temperatur des Wassers im Winter 1932/33, Abweichungen im 1932/33 von der mittleren Lufttemperatur in den Jahren 1886/1930, Abweichungen der Temperatur des Oberflächenwassers im 1932/33 von mehrjährigen Mittelwerten, die Eisverhältnisse November 1932 bis zum Mai 1933. Dicke des Eises und des Schnees auf dem Eise. Eis- und Schiffahrtsverhältnisse in den Häfen.

**Hansen H. E.** - Limits of the Pack-Ice in the Antarctic in the Area between 40° W and 110° E [*Agitur de glaciatæ banquisæ limitibus in Antarctide inter* 40° W *et* 110° E]. 4 pls., Hvalråd. Skr., Sc. Res. Mar. Biol. Research, 9, 39-41. Oslo (1934). **a - 1642**

Comment of position charts prepared on the basis of the whaling Journals forwarded to the Norwegian Whale Council for the whaling seasons 1929-30, 1930-31, 1932-33 and 1933-34; limits of the pack ice traced for each of theese seasons on four charts on basis of the above position charts and the ice reports in the journals.

**Hennessy J.** - Summary of Ice Conditions, Western North Atlantic, 1933 [*Summarium de glaciei condicionibus in Atlantico Nord-occidentali*]. Mar. Obs., XI, 114, 56-58. London (1934). **a - 1643**

Monthly summary. The international ice patrol. North atlantic tracks. Instructions for Canada.

**Hoyle R. M.** - The Oceanographic Work of the International Ice Patrol and Ice Observation Service Carried on by the Coast Guard in 1933 [*Opus oceanographicum peractum a Servitio internationali navium vigilantium pro observationibus in glaciem. Agitur particulatim de operibus peractis a. 1933 per naves litora vigilantes*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 200-202. Washington, D. C. (1934). **a - 1644**

Brief account of the six ice-observation cruises made by the oceanographic vessel « General Greene » in the critical area from March 2 to June 6, 1933 and of the 25 oceanographic stations made by this vessel, as well as of the collection of reports received from a large number of vessels crossing in the vicinity of the Grand Bank. Report on a northern oceanographic and ice-observation cruise in Davis Strait, made by the « General Greene » after the season was over extending as far north as Ivigtut on the Greenland coast and Hudson Strait on the American side, which lasted from June 26 to July 24, 1933.

**Ivanov B.** - La navigation du brise-glace « G. Sedov » en 1933 [*De navigatione navis glacieiruptricis* « G. Sedov » *a. 1933*] (En russe et angl.). Bull. Arct. Inst., 12, 419-420, 454-456. Leningrad (1933). **a - 1645**

Compte rendu de la navigation du brise-glace « G. Sedov » qui était chargé de transporter aux lieux de leurs travaux les membres de l'expédition de Novaja Zemlja et de celle de Nordwick, ainsi que de construire sur le Cap Olovjannyj une nouvelle station polaire et une station T. S. F. Condition des glaces au cours du voyage de « G. Sedov » entre le 5 août et le 1 novembre 1933 dans la Mer de Kara, le détroit de Chokaljskij et la Mer des Frères Laptev.

**Oellrich H.** - Die Eisverhältnisse des Winters 1932/33 in den ausserdeutschen europäischen Gewässern [*De glaciei condicionibus hieme 1932/33 in maribus europaeis extragermanicis*]. 4 Tab., 2 Taf., Ann. d. Hydrogr., LXII, 1. 21-23. Berlin (1934). **a - 1646**

Tabellarische Zusammenstellung an Hand des an die Deutsche Seewarte von ausländischen Instituten übermittelten Materials und der laufend aufgenommenen Funkmeldungen über die Eisverhältnisse in Holland, Norwegen, Schweden, Finnland, Russland, Estland und Lettland.

**Okada T. (Director)** - Reports on the Conditions of the Sea-Ice. By the Nemuro and Syana Meteorological Observatory [*De glaciei condicionibus: Observationes peractœ per Observatorium in* Nemuro *et* Syana]. Journ. Oceanogr., VI, 2, 287-288. Kobe (1934). **a - 1647**

**Pineghin N.** - Dans les espaces glaciaux [*In regionibus glaciatis*] (En russe). 22-ème éd. rev. compl., isd. vo pissatieliei. (Ed. par l'auteur). Léningrad (1933). **a - 1648**

Compte rendu de l'expédition de Sedov vers le Pôle Nord.

**Richter J.** - Die Eisverhältnisse des Weissen Meeres [*De glaciei condicionibus Maris Albi*]. 10 Tab., 1 Taf. a. T., Ann. d. Hydrogr., LXII, 3, 89-95. Berlin (1934). **a - 1649**

Bericht an Hand von in Russland veröffentlichten Beobachtungsdaten (S.: Hydr. Dep. Hydro-Meteor. Sect., « The State of Ice in the Seas of U. S. S. R. », Leningrad 1926-1931). Die örtlichen Unterschiede in der Eisbesetzung: 1. Klima; 2. Bodengestaltung, Hydrographie und ihre Beziehungen zu den Eisverhältnissen. Die zeitlichen Unterschiede der Vereisung. Allgemeine Bemerkungen über den Zustand des Eises und seine Bewegungen.

**Schokalskij J.** - Etat des glaces dans la Mer Arctique pendant l'été 1930 [*De glaciei condicionibus Maris Arctici æstate 1930*] (En russe). Izv. Gos. Geogr. Obstsch., LXIV, 1, 102. Leningrad (1932). **a - 1650**

Note sur l'état des glaces de la Mer Polaire sur la base des renseignements contenus dans les publications de l'Institut Météorologique Danois.

**Schokalskij J.** - Les conditions des glaces dans le bassin polaire en 1931 [*De glaciei condicionibus in bacino polari a. 1931*] (En russe). Izv. Gos. Ghéogr. Obstsch., LXIV, 5/6, 410-411. Leningrad (1932). **a - 1651**

Résumé du bulletin danois sur l'état des glaces dans la Mer Kara, la Mer Blanche, la Mer Barents, sur les côtes du Spitzberg, du Groenland, de l'Islande, de Terreneuve, du Labrador, dans le détroit de Davis, de Houdson et autour de l'archipel polaire canadien.

**Smith Edward H.** - Ice in the Sea [*Glacies marina*]. 1 tabl., 2 maps, Bull. Nat. Res. Counc. 85, 384-408. Washington, D. C. (1932). **a - 1652**

The different relations of the Arctic, its central mass of ocean ice and the Greenland ice cap, as well as the Antarctic, with its central dome of glacial ice surrounded by a fringe of sea ice and the variations of floating ice are discussed. After a short historical résumé of our knowledge on ice in general, and the ice of the Arctic and the Antarctic especially, the author gives a classification of natural ice and a list of standard terms, indicating the geographical distribution of floating ice, aswell as the variations in ice limits.

**Speerschneider C. I.** - The State of the Ice in the Arctic Sea. 1933 [*Glacies in oceano arctico*]. Naut. Meteorol. Aarb., Copenhagen (1934). **a - 1653**

**Teichert Curt** - Das ostgrönländische Packeis [*Glacies cumulata fluctuans ad Groënlandiam orient. pertinens*]. 5 Abb., Nat. u. Mus., LXIII, 3, 107-112. Frankfurt a. M. (1933). **a - 1654**

Die erste genauere Kunde über die Bewegungen dieses Packeises ist uns erst von der abenteuerlichen Fahrt des deutschen Schiffes « Hansa » in den Jahren 1869 und 1870 gegeben worden. Geschwindigkeit, Konsistenz, Breite, Dicke, Aussehen und Verbreitung des Packeises. Fauna.

**Thomsen Helge** - Danish Hydrographical Investigations in the Denmark Strait and the Irminger Sea during the Years 1931, 1932 and 1933 [*Investigationes hydrographicæ a Danis susceptæ in Fretum Danicum et mare* Irminger *a. 1931, 1932 et 1933*]. 13 figs., Rapp. Proc.-Verb. Cons. Int. Expl. Mer (Scient. Rep. North-Western Area Comm. 1930-1931), LXXXVI, 1-14. Copenhague (1934). **a - 1655**

Ice-conditions and surface observations. Sections across the Denmark Strait. The horizontal distribution of polar water and Atlantic water in the Denmark Strait. Sections across the East Greenland polar current.

**Vasnetzov V.** - Ice Conditions During the 43rd Expedition of the « Persey » in May 1933 [*Glaciei condiciones perdurante expeditione navis* « Persey » *mense Majo 1933*] (In Russ. & Engl.). Bull. Arct. Inst., 3, 119-120, 158-160. Léningrad (1934). **a - 1656**

Ice met with in taking the section from Bear Island to South Cape and in the western part of the section in the Greenland Sea, taken during the 43rd expedition of the Schooner « Persey », May 19th May 29th 1933.

**Wiese W.** - Die Eisverhältnisse im Barentz-Meere und im nördlichen Teile des Karischen Meeres im Sommer 1930 nach Beobachtungen des Eisbrechers « Sedow « [*Glaciei condiciones in Mari* Barents *et in parte nordica Maris* Kara, *æstate 1930 ex observationibus navis glacieiruptricis* « Sedov »] (In Russ., dtsch. Rés.). 5 Kart., 1 Tab., Sc. Res. Arct. Exped. on the « Sedov » in 1930. Hydrol. & Meteorol. Trans. Arct. Inst., I, 109-123. Leningrad (1933). **a - 1657**

Zusammenfassende Wiedergabe der Ergebnisse von Beobachtungen der Eisverhältnisse zwischen Nowaja Zemlja und Franz-Joseph Land, zwischen dem Russischen Hafen (Nowaja Zemlja) und der neuentdeckten Wiese-Insel, und zwischen der Woronin-Insel, der Samoilowitsch-Insel und der Severnaja Zemlja. Die im Barents- und Karischen Meer während der Fahrt von dem Eisbrecher « Sedow » beobachteten Eisverhältnisse sind schematisch auf den Karten 1-5 dargestellt.

**Wiese W.** - Le service des glaces dans l'Atlantique Nord [*Servitium pro glaciei observationibus in Atlantico Nordico*] (En russe). Bull. Arct. Inst., 3, 137-138. Léningrad (1934). **a - 1658**

Développement et perfectionnement de l'Ice Patrol Service organisé peu de temps après la catastrophe du « Titanic » en 1912. Le travail accompli par ce Service en 1932 ; élaboration des cartes dynamiques pour la facilitation des prognoses.

**Wiese W. J.** - Ueber die Eistrift im nördlichen Polarbecken [*Glacies declinans per bacinum arcticum*] (In russ., dtsch. Rés.). 2 Kart., 4 Tab., Mém. Inst. Hydrol., X, 327-336. Léningrad (1933). **a - 1659**

Angaben über die Triften verschiedener Bojen im nördlichen Eismeer. Versuch die Geschwindigkeit der westlichen Trift der Bojen festzustellen. Der mittlere für die Bojen erhaltene Wert der Geschwindigkeit der Trift im Polarbecken (1.04-1.11 Seemeilen) stimmt sehr gut mit der mittleren Geschwindigkeit der Eistrift der Schiffe. Die unternommene Untersuchung der Triften der Bojen erlaubt Schlussfolgerungen über einige Tatsachen zu ziehen, welche schon aus den Eistriften der Schiffe bekannt waren.

**Wiese W. J.** - Die Eisverhältnisse [*Glacies eiusque condiciones*] (In russ., dtsch. Auzsug). 2 Karten, Trans. Arct. Inst., VI, 13 & 23-29. Leningrad (1933). **a - 1660**

Zusammenfassende Wiedergabe der Ergebnisse der Beobachtungen der Eisverhältnisse im Barents Meere, im Karischen Meere, in den Sunden von Franz-Joseph Land, im nördlichen Teile des Britischen Kanals und in der Königin Victoria See, welche während der Fahrt des Eisbrechers « Malygin » nach dem Franz-Joseph Land im Sommer 1931 ausgeführt wurden.

**Wiese W. J.** - Die Eisverhältnisse im Nördlichen Eismeer zwischen Nowaja Zemlja und der Bering-Strasse nach Beobachtungen des Eisbrechers « Sibirjakow » im Jahre 1932 [*Glacies in mari nordico inter* Novaja Zemlja *et Fretum* Bering *ex observationibus navis glacieiruptricis* « Sibirjakov » *a. 1932*] (In Russ., dtsch. Rés.). 7 Abb. u. Kart., Trans. Arct. Inst., X, 89-101. Leningrad (1933). **a - 1661**

Zusammenfassender Bericht über die Eisverhältnisse nach den Beobachtungen an Bord des Eisbrechers « Sibirjakow » im Karischen Meere zwischen dem östlichen Eingang in die Strasse Matoschkin Schar und der Dickson-Insel, an der Ostküste von der Severnaja Zemlja und während der Ueberfahrt von der Lena-Mündung zur Grossen Ljachow-Insel. In 1932 hatte das Staatliche Hydrologische Institut zu Leningrad den ersten Versuch gemacht eine Eisprognose für die ganze Strecke zwischen Spitzbergen und der Bering-Strasse aufzustellen. Die Prognosen sind mit Ausnahme derjenigen für das Tschuktscher Meer sehr gut ausgefallen.

**Zubov N. N.** - The Circumnavigation of Franz Joseph Land [*De Terra Francisci Josephi circumnavigata*]. 2 figs., 3 tabl., Geogr. Rev., XXIII, 3, 394-401. New York (1933). **a - 1662**

In connection with the Second International Polar Year various scientific institutions of the U. S. S. R. planned an extensive program of meteorological and oceanographical investigations. Among outstanding achievements is the first circumnavigation of Franz Joseph Land by the « Knipovitch », whose success is a proof of the good work which can be accomplished in high latitudes by small boats if personnel and crew are experienced and if physical conditions can be predicted. Professor Zubov had forecast favorable ice conditions for this expedition and these were realized. In the present article he describes the course of the expedition and the hypothesis upon which it was founded that the temperatures of the North Cape Current can be used to foretell the state of the ice in Barents Sea.

**Zubov N. N.** - Postscript to « The Circumnavigation of Franz Joseph Land » [*De Terra Francisci Josephi circumnavigata. Postscriptum*]. Geogr. Rev., XXIII, 3, 528. New York (1933). **a - 1663**

A correction in reference to the author's prediction of weather conditions in the Kara and Barents seas in 1933, arrived too late to be incorporated in his paper (s. p. 401 of the same issue of « Geogr. Rev. »).

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**U. S. Treasury Department. Coast Guard** - International Ice Observation and Ice Patrol Service in the North Atlantic Ocean. Season of 1932 (B. N° 22) [*De vigilantia circa glaciem in Atlantico Nordico*]. num. charts, diagr., 4 phot., 64 pp., Govmt. Print. Off. Washington (1933). **a - 1664**

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**M. L.** - Il più grande rompighiaccio del mondo [*Agitur de maxima navi glaciei ruptrici*]. Riv. Maritt., Anno LXVII, 9 (Suppl.), 32. Roma (1934). **a - 1665**

Nuova unità destinata ad assicurare lo svolgimento del traffico al fiume Lena e all'isola Wrangel. Essa potrà fare il traffico Vladivostok-Lena senza rifornirsi. Sarà pronta nel 1937.

**W. W.** - Voyage of the S/S « Lengostorg » to Franz-Joseph Land in 1933 [*Agitur de navigatione navis Sovieticæ* « Lengostorg » *ad Terram Francisci Josephi*] (In Russ. & Engl.). Bull. Arct. Inst., 4, 178-179, 211-213. Léningrad (1934). **a - 1666**

Route covered by the vessel between Novaja Zemlja and Franz-Joseph Land ; meteorological and ice-conditions during the voyage, which have been made from July 18 to October 16, 1934.

**An.** - Ice Buoys Cast by the « Krassin » and « Sibirjakov » Expeditions during the Summer of 1933 [*De signis fluctuantibus in mare iactis ad glaciem vitandam perdurantibus expeditionibus navis* Krassin *et navis* « Sibirjakov »] (In Russ., Engl. Summ.). 1 tabl., Bull. Arct. Inst., 1, 11-13, 46. Léningrad (1934). **a - 1667**

Report on casting of buoys containing post- cards thrown up by the ice-breakers « Krassin » and « Sibirjakov » in the Kara Sea, and by the steamer « Stalin » in the Laptev Sea, with the purpose of exploring the ice-drift and the streams in these areas. The places where the buoys were cast are indicated on the enclosed table.

**An.** - The Probable Ice-Conditions in the Barents and Kara-Sea [*De glaciei condicionibus probabilibus in maribus* Barents *et* Kara] (In Russ. & Engl.). Bull. Arct. Inst., 3, 111 & 147. Leningrad (1934). **a - 1668**

Prognosis communicated on March 14th 1934 by the State Hydrological Institute of the ice-conditions in May-June in the Barents and Kara Seas.

## Vis magnetica.

**Aguerrevere P. J.** - A Study for the Development of a Field Magnetometer Based on the Principle of the Earth Inductor [*De quodam practico magnetometro cuius fundamenta ponuntur in theoria inductometri terrestris*]. Q. Colo. School Mines, XXVII, 3, 10-29. Golden, Colo. (1932). **a - 1669**

**Almy E. D.** - Reports on Magnetic and Electric Work of Organizations in the United States during 1932-33 : Work Related to Terrestrial Magnetism and Electricity of the Naval Research Laboratory [*Relatio de magnetismo et electricitate in Americæ Provinciis Foederatis a. 1932-33. Opus circa electricitatem et magnetismum terrestre peractum in Laboratorio Nautico pro inquisitionibus scientificis*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 166. Washington, D. C. (1933). **a - 1670**

Summary of the skip-distances of radio-waves of wavelength from 10 to 50 meters for summer and winter day-and-night conditions in temperate zones. Ionization in the bank at about 200 kilometers above sea-level. Observations of spectra of the arctic sky and of the ionized layers in the upper atmosphere.

**Barnett S. Y.** - Gyromagnetic Effect : History, Theory and Experiments [*De effectibus gyromagneticis. Historia, theoriæ, experientiæ*]. Physica, XIII, 8, 241-268. Eindhoven (1933). **a - 1671**

**Bartels J.** - L'activité du magnétisme terrestre et ses relations avec les phénomènes solaires [*De magnetismo terrestri eiusque correlationibus cum phænomenis solis*]. C. R. Congr. Int. Electr., XII, 77-88. Paris (1932). **a - 1672**

**Bartels J.** - Sonnenströme und Magnetstürme [*De currentiis solaribus ac tempestatibus magneticis*]. Wiss. u. Fortschr., VI, 12, 251-256. Augsburg (1932). **a - 1673**

**Bates L. F. A.** - A New Apparatus for the Measurement of the Earth's Magnetic Field [*Apparatus novus ad campum magneticum terrestrem mensurandum*]. Proc. Phys. Soc., XLV, 247, 180-195. London (1933). **a - 1674**

**Bernardini G. & Bocciarelli D.** - Sull'influenza del campo magnetico terrestre sui corpuscoli della radiazione penetrante alla latitudine di Firenze [*De influentia campi magnetici terrestris in corpuscula radiationis penetrantis ad latitudinem Florentinam*]. Ric. Scient., a. V., I, 8, 451-452. Roma (1934). **a - 1675**

Viene studiato l'effetto azimutale alla latitudine di Firenze col metodo delle coincidenze fra tre contatori a filo di Geiger e Müller, cercando di realizzare le migliori condizioni sperimentali possibili.

**Bogoiavlensky L. & Chatelin M.** - L'influence de quelques facteurs géophysiques sur les points de chute de la foudre [*De influentia factorum geophysicorum in fulgura*]. C. R. Congr. Int. Electr., XII, 187-196. Paris (1932). **a - 1676**

**Brown J. G.** - Reports on Magnetic and Electric Work of Organizations in the United States during 1932-33 : Research in Atmospheric Electricity at Stanford University [*Relatio de operibus magneticis et electricis peractis in Americæ Provinciis Foederatis a. 1932-33. Investigationes in electricitatem atmosphæricam per* « Stanford University »]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 166. Washington, D. C. (1933). **a - 1677**

Brief summary.

**Brown W. A. R.** - Transoceanic Radio and Solar Activity [*De radio transoceanica ac solari activitate*]. 7 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 129-139. Washington, D. C. (1933). **a - 1678**

Results of an investigation carried out by the National Broadcasting Company in order to determine the major solar and terrestrial phenomena which affect short-wave propagation adversely, their correlation with transmission and the practicability of forecasting these disturbances. Systematic observations several hours daily of the Transatlantic circuits, and less frequent observations of the Pacific and South American circuits. The results are reported graphically on a reception-log making the transmission characteristics evident at a glance. Effect of magnetic disturbances. Sufficient accuracy attained in the prediction of day-to-day transmission-conditions.

**Burmeister Fr.** - The Magnetic Observatory in Maisach [*De observatorio magnetico in* Maisach]. Terr. Magn., XXXVIII, 3, 283-284. Baltimore, Md. (1933). **a - 1679**

**Chapman S.** - The Effect of a Solar Eclipse on the Earth's Magnetic Field [*De eclipsi quadam solari eiusque effectibus in campum magneticum terrestrem*]. Terr. Magn., XXXVIII, 3, 175-184. Baltimore, Md. (1933). **a - 1680**

**Chapman S. & Ferraro V. C. A.** - A New Theory of Magnetic Storms [*De nova quadam theoria tempestatum magneticarum*]. Terr. Magn., XXXVIII, 2, 79-96. Baltimore, Md. (1933). **a - 1681**

**Colin Elie** - Magnétisme de Madagascar. Revu et complété par le R. P. Charles Poisson [*De magnetismo in* Madagascar]. Histoire physique, naturelle et politique de Madagascar. Fig., pl., cartes, iv + 332 pp., Soc. Edit. Géogr., Marit. & colon. Paris (1932). **a - 1682**

**Dehalu M.** - L'année polaire et la création d'une station magnétique temporaire au Congo Belge [*De anno polari pro statione quadam magnetica in* Congo *Belgarum pro tempore ædificanda*]. Bull. Séanc. Inst. R. Col. Belge, III, 3, 479-488. Bruxelles (1932). **a - 1683**

**Dijk (van) G.** - The Magnetic Character of the Year 1932 and the Numerical Magnetic Character of Days, 1930-1932 [*De caracteribus magneticis anni 1932*]. Terr. Magn., XXXVIII, 4, 301-302. Baltimore, Md. (1933). **a - 1684**

**Dluski St. & Cynk B.** - Mesures des éléments du champ magnétique terrestre sur le littoral polonais de la mer Baltique [*De elementis campi magnetici terrestris præter litus polonum Maris Baltici eorumque mensuris*]. 35 ills., Mém. Inst. Nat. Mét., 3. Varsovie (1933). **a - 1685**

**Eblé L.** - Le champ magnétique terrestre [*Campus magneticus terrestris*]. C. R. Congr. Int. Electr., XII, 26-40. Paris (1932). **a - 1686**

**Eblé L.** - Sur les rapports entre l'activité magnétique et les valeurs absolues de la composante horizontale [*De correlationibus inter activitatem magneticam et valores absolutos componentis horizontalis*]. Terr. Magn., XXXVIII, 3, 203-206. Baltimore, Md. (1933). **a - 1687**

**Eickelberg E. W.** - Magnetic Anomalies in Alaska [*De magneticis anomaliis in* Alaska]. 2 figs., Nat. Res. Counc. Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 116-118. Washington, D. C. (1933). **a - 1688**

An account on the magnetic anomalies, which are the rule rather than the exception in Alaska, particularly in south-eastern Alaska, on hand of observations taken by Coast and Geodetic Survey parties all along the coast from Dixon Entrance at the southern extremity to the Bering Sea. Summary of a rather complete survey made on board the survey-ship « Explorer ».

**Ennis C. C.** - Graphical Aids in the Reduction of Magnetic Observations [*De subsidiis, ex Geophysica, observationibus magneticis*]. Terr. Magn., XXXVIII, 4, 331-334. Baltimore, Md. (1933). **a - 1689**

**Fabiani R. & Petrucci G.** - Nuova esplorazione geofisica della Sicilia. Risultati generali e cenni particolari sulle determinazioni geomagnetiche [*De exploratione nova geophysica Siciliæ insulæ. Resultatus generales ex determinationibus geomagneticis*]. Atti R. Acc. Naz. Lincei - Rend. Cl. Sc. Fis., Mat. e Nat., XVII, 9. 686-691. Roma (1933). **a - 1690**

Uno degli AA. (R. Fabiani) informa d'aver promosso una nuova esplorazione gravimetrica e geomagnetica regionale di secondo grado della Sicilia, che venne eseguita nel periodo 1929-1931. Accenna ai principali risultati delle ricerche gravimetriche ed ai rapporti fra l'andamento delle isoanomale di gravità e le condizioni generali della costituzione geologica dell'isola, mettendo in evidenza l'importanza di detti risultati anche come guida a ricerche future con finalità applicative. L'altro A. (G. Petrucci), premesso un cenno sui criteri che servirono di norma alle indagini geomagnetiche, mette in evidenza i principali risultati della campagna, rilevando le anomalie magnetiche regionali e locali più significative finora scoperte e l'importanza applicativa che potrà ottenersi dalla interpretazione di esse.

**Fermi E. & Rossi B.** - Azione del campo magnetico terrestre sulla radiazione penetrante [*De terrestri campo magnetico eiusque actione in radiationem penetrantem*]. Nuovo Cim., nuova serie, 8, 333-338. Bologna (1933). **a - 1691**

Si discute l'influenza combinata del campo magnetico terrestre e dell'assorbimento atmosferico sulla distribuzione d'intensità dei raggi cosmici.

**Ferraro V. C. A.** - A New Theory of Magnetic Storms [*De nova quadam theoria tempestatum magneticarum*]. Observatory, LVI, 711, 253-259. London (1933). **a - 1692**

**Ferraz de Carvalho A.** - O magnetismo terrestre. Estato actual da sua teoria [*De magnetismo terrestri*]. 8 pp., A Terra, 2. Coimbra (1932). **a - 1693**

**Fleming J. A.** - Distribution à travers le monde des observatoires magnétiques et des stations pour l'étude de la variation séculaire [*Quo modo observatoria magnetica stationesque ad variationem studendam secularem per orbem distribuuntur*]. C. R. Congr. Int. Electr., XII, 18-28. Paris (1932). **a - 1694**

**Fleming J. A.** - Reports on Magnetic and Electric Work of Organizations in the United States during 1932-33: Magnetic Investigations of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington, May 1932 to April 1933 [*Relatio de operibus magneticis et electricis peractis in Americæ Provinciis Foederatis a. 1932-33. Inquisitiones magneticæ Sectionis pro Magnetismo terrestri ad* « Carnegie Institution » *pertinentis.* Washington, *a mense Majo 1932 ad Aprilem 1933*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 160-165. Washington, D. C. (1933). **a - 1695**

Magnetic survey and cooperation. Eclipse Expedition of August 31, 1932. International Polar Year 1932-33. Observatories. Terrestrial electricity: Earth-currents, atmospheric electricity. Laboratory investigations: Atomic nucleus and high voltage, investigation of compass-deviations, investigation of cosmic rays. Compilation and discussion of terrestrial-magnetic data: Compilation of data at observatories, diurnal variation, secular variation, magnetic activity. Bibliography.

**Fleming J. A.** - Summary of the Year's work, Department of Terrestrial Magnetism Carnegie Institution of Washington [*Compendium operum annuorum a Sectione pro Magnetismo terrestri ad* « Carnegie Institution » Washington *pertinente peractorum*]. Terr. Magn., XXXVIII, 4, 323-330. Baltimore, Md. (1933). **a - 1696**

**Fleming J. A. & Harradon H. D.** - Fifth General Assembly of the Association of Terrestrial Magnetism and Electricity at Lisbon, Portugal, September 14 to 23, 1933 [*Consessus prior plenarius Societatis pro magnetismo terrestri et electricitate. Olisippone a die 14 ad diem 23 mensis Septembris 1933*]. Terr. Magn., XXXVIII, 4, 313-322. Baltimore, Md. (1933). **a - 1697**

**Fuller V. R.** - Reports on Magnetic and Electric Work of Organizations in the United States during 1932-33. Auroral Station at the Alaska Agricultural College and School of Mines [*Relationes de operibus magneticis et electricis peractis in Americæ Provinciis Foederatis a. 1932-33. Statio ad auroram borealem studendam in Collegio agrario ac Schola fodinaria Alaskiana*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann.

Meet., Apr. 27-29, 1933, 159. Washington, D. C. (1933). **a - 1698**

Brief account of the work of the Auroral Station of the Alaska Agricultural College and School of mines and of a close comparison of aurora displays with magnetism and earth-current records, which it has been possible to make on the Polar Station of College-Fairbanks.

**Grenet G.** - Le champ électrique terrestre [*Campus electricus terrestris*]. C. R. Congr. Int. Electr., XII, 117-134. Paris (1932). **a - 1699**

**Guerrieri Eugenio** - Determinazioni assolute dell'inclinazione magnetica eseguite nel R. Osservatorio di Capodimonte durante gli anni 1913-1914-1915-1916-1917-1918-1919-1920-1921 [*Determinationes absolutæ inclinationis magneticæ peractæ in Regio Observatorio in* Capodimonte *ex a. 1913 ad a. 1921*]. Contributi geofisici del R. Oss. di Capodimonte, serie, II, n. 2, 3-35. Napoli (1933). **a - 1700**

Queste determinazioni continuano la serie di quelle iniziate del R. Osservatorio di Capodimonte nel 1882. I risultati ottenuti sono riuniti in tre tavole: la tavola I contiene i valori dell'inclinazione magnetica, ricavati separatamente per ciascun ago, e le costanti relative allo stato ed alla posizione dell'ago corrispondente; la tavola II contiene i valori medi mensili ed il medio annuo dell'inclinazione magnetica, separatamente per ciascun ago, e complessivamente per tutti e due; nella tavola III sono dati i valori medi annui e a variazioni annue dell'inclinazione magnetica a Capodimonte, dal 1882 al 1921.

**Halliday E. C.** - On the Propagation of a Lightning-Discharge through the Atmosphere [*De scatebra atmosphærica eiusque propagatione*]. 3 pl., Phil. Mag., XV, 98, 409-420. London (1933). **a - 1701**

**Jackson W. E. W.** - Progress-Report on the Work of the Canadian Magnetic Observatories [*Relatio de operibus in Observatoriis Magneticis Canadensibus peractis*]. Nat. Res. Counc., Trans. Amer. Geod. Union, 14th Ann. Meet., Apr. 27-29 1933, 118-120. Washington, D. C. (1933). **a - 1702**

Unique position of Canada in relation to the Polar Year program due to the fact that the magnetic pole is situated in this country. Establishment of a fully equipped magnetic observatory at Chesterfield Inlet. Brief account of the work performed at the laboratory and description of the apparatus used for the purpose. Summary of the work made on the two other special polar stations established particularly for meteorological work; at the mouth of the Coppermine River on the Arctic coast and at Cape Hope's Advance in Hudson Straits, respectively.

**Jansky K. G.** - Electrical Disturbances of Extraterrestrial Origin [*Perturbationes electricæ extraterrestres*]. Abstr. in Proc. Inst. Radio Eng., XXI, 12, 758. New York, N. Y. (1933). **a - 1703**

**Johnson T. H.** - The Azimuthal Asymmetry of the Cosmic Radiation [*De asymmetria azimutali radiationis cosmicæ*]. Phys. Riv., XLIII, 10, 834-835. Lancaster, Pa. (1933). **a - 1704**

**Kalinowski St.** - Zdjecie magnetijezne Polski [*Relevamentum magneticum Poloniæ*]. Trav. Obs. May de Swider, 5. xxix + 152 pp., 4 cart. Warszawa (1933). **a - 1705**

**Katô Yosio** - Seismic and Volcanic Activities and Changes in the Earth's Magnetic Field [*De activitate sysmica et vulcanica deque mutationibus in campo magnetico terrestri*]. 13 figs., Jap. Journ. Astr. Geophys., X, 2, 249-262. Tokyo (1933). **a - 1706**

The A. studied the relation between the secular variation of the vertical component of the earth's magnetic field at Kakioka, Tsingtau, Mt. Tukuba and Ryozyun (Port Arthur). These studies proved to the Author's satisfaction that secular variation of the magnetic field is closely related to crustal tilting, Examples, diagrams. Conclusions.

**Keränen J.** - A Magnetic Survey of Finland on July 1, 1930 [*Relevamentum magneticum Finlandiæ*]. 5 maps, 39 pp., Meteorol. Zentralanst. Erdmagn. Unters., 17. Helsingfors (1933). **a - 1707**

**Labrouste Y.** - Recherches des composantes périodiques en magnétisme et électricité terrestres [*Investigationes in componentes periodicos magnetismi terrestris et electricitatis*]. C. R. Congr. Int. Electr., XII, 110-115. Paris (1932). **a - 1708**

**Larmor Joseph** - Auroras, Electric Echoes, Magnetic Storms [*Auroræ, echus electricæ, tempestates magneticæ*]. Nature, CXXXIII, 3354, 221-223. London (1934). **a - 1709**

Recent reports by E. V. Appleton and his associates, Norwegian and others, have brought out the complex connections between the optical and magnetic phenomena of the upper atmosphere. The considerations of this paper touch this important subject.

**Ljungdahl G. S.** - An Attempt to Determine the Magnetic Declination at Sea on Board an Ordinary Motor Boat [*De experimento ad magneticam declinationem determinandam in navi motore prædita*]. 1 pl., 1 map, Hydrogr. Rev., X, 1, 52-60. Monaco (1933). **a - 1710**

**Lohuizen H. P. Th.** - Het werk van de Nederlandsche Pooljaar-expeditie te Angmagssalik [*De operibus peractis ab expeditione Hollandica in* Angmagssalik]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LI, 1, 127-128. Leiden (1934). **a - 1711**

Conferenza con proiezioni tenutasi a Rotterdam al 12 Dicembre 1933. Osservazioni sul magnetismo terrestre, misurazioni radio con onde ultra-corte dei differenti strati riflettenti (Kenelly-Heaviside). Osservazioni meteorologiche: nuvole, venti nell'alta atmosfera, misurazioni della radiazione solare; fenomeni ottici all'equatore, fenomeni generali fisici, possibilità di una via aerea sulla Groenlandia.

**Lutkin F. E.** - The Duration of a Lightning-Flash [*Tempus campi magnetici*]. Meteorol. Mag., LXVIII, 807, 66-67. London (1933). **a - 1712**

**Maurain Ch.** - Le développement des études de magnétisme et électricité terrestres [*Studia magnetismi et electricitatis terrestris eorumque progressus*]. C. R. Congr. Int. Electr., XII, 1-17. Paris (1932).

(—) Perturbations magnétiques. Aurores polaires. C. R. Cong. Int. Electr., Vol. XII, (59-76). **a - 1713**

**Maurain Ch. C. E., Brazier L., Eblé H., Labrouste & Sales Ed.** - Données numériques de physique du Globe [*Dati circa Physicam terrestrem*]. xxii + 2435-2529, Gauthier-Villars et C.ie. Paris (1932). **a - 1714**

**McNish A. G.** - The Apparent Effect of Magnetic Activity Upon the Secular Variation of the Earth's Magnetic Fields [*De effectu apparenti activitatis magneticæ in variationem secularem camporum magneticorum terrestrium*]. 4 figs., 2 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 139-144. Washington, D. C. (1933). **a - 1715**

The investigations, whose results are illustrated in the present paper, have been undertaken with a view to discover more exactly the relation between the secular variation of the horizontal magnetic force and magnetic activity. It deals with the two ways in which the secular change of the secular magnetic force may be affected by magnetic activity: the post-perturbation phenomenon and the consideration whether the force, after recovering from the depression, attains a value lower or higher than it had before the depression. A comparison whose results are reported on a table, is made of the annual values of magnetic horizontal intensity for all days with magnetic activity (u) as determined from the interdiurnal variability in horizontal intensity at many observatories.

**Muramoto Asakazu** - On the Result of Observations of Earth Magnetism on the Day of the Solar Eclipse [*De resultatibus ex observationibus magnetismi terrestris die eclypsis solis*]. 1 pl., Suiro Yôhô (Hydrogr. Bull.), 12, 277-280. Tokyo (1933). **a - 1716**

Results of observations on declination of earth magnetism carried out simultaneously at three stations in Japan during the eclipse of the sun on September 1st, 1932, by parties dispatched from the Hydrographic Department of the Imperial Japanese Navy for the magnetic survey of the whole Empire. The observations have been made by means of « Nippon Suirobu Magnetometer » continuously for 6 hours from the beginning to the end of the eclipse, at intervals of from 1 to 10 minutes. No sudden change at the beginning and the end of the eclipse nor any abnormality during the eclipse was observed, the day being calm. (S. Ogura, Jap. Journ. Astr. & Geoph., XI, 3, abstr. 136, 41. Tokyo, 1934).

**Nakano M.** - A Possible Explanation of the Phenomenon Analogous to « Beats », Which Often Occurs in Rapid Periodic Variations of Terrestrial Magnetism [*De possibili explicatione cuiusdam phænomeni in variationibus periodicis rapidis magnetismi terrestris*]. Proc. Imp. Acad., IX, 6, 235-238. Tokyo (1933). **a - 1717**

**Noto Hisashi** - Some Experiments on Earth Current [*De experimentis peractis circa currentias telluris*]. 17 figs., Jap. Journ. Astr. Geophys., X, 2, 263-303. Tokyo (1933). **a - 1718**

The probable existence of some relation between the earth potential gradient and the occurrence of earthquakes may be inferred from the present investigation, though the elucidation of the real nature of the relation is left for future investigations. New measurements of the earth potential gradient are now going on.

**Parodi R.** - Esperienze sulla captazione della elettricità atmosferica [*De captatione electricitatis atmosphæricæ*]. Elettrotecnica, XXI, 11, 244-245. Roma (1934). **a - 1719**

Si espongono i risultati di esperienze istituite nel R. Osservatorio Meteorico e Sismico di Imperia, allo scopo di ottenere dalla elettricità distribuita nella atmosfera, con l'impiego di grandi capacità, correnti elettriche unidirezionali di una certa entità.

**Patton R. S.** - Reports on Magnetic and Electric Work of Organizations in the United States during 1932-33: Magnetic Work of the United States Coast and Geodetic Survey [*Relationes de operibus magneticis et electricis in Americæ Provinciis Foederatis a. 1932/33. Opera magnetica peracta per* « U. S. Coast and Geodetic Survey »]. Nat. Res. Counc., Trans. Amer. Geoph. Union, Apr. 27-29, 1933, 159-160. Washington, D. C. (1933). **a - 1720**

Account of the magnetic surveys for the determination of the Earth's magnetism with time and declination-observations, and the operation of the five magnetic observatories, the College Fairbanks Polar-Year Station and the temporary magnetic observatory on the grounds of the Alaska Agricultural College and School of Mines.

**Pratas A. D.** - Influências lunares sobre o magnetismo terrestre [*De lunæ influentia in magnetismum terrestre*]. Rev. Fac. de Ciências, II, 3, 183-197. Coimbra (1932). **a - 1721**

**Przybyllok E.** - Erdmagnetische Messungen [*Campus terrestris et mensuræ magneticæ*]. Naturwiss., XXI, 16, 306-307. Berlin (1933). **a - 1722**

**Rodes L.** - Acción del Sol en el gradiente del potencial electrico de la atmósfera y en las pertubaciones súbitas del campo magnetico terrestre [*De solis actione in gradientem potentialis electrici atmosphærici et in perturbationes campi magnetici terrestris*]. Mem. Acad. Cient. Artes, XXIII, 11, 239-251. Barcelona (1933). **a - 1723**

**Rass Gunn** - On Electrical Rectification by the Earth Lower Atmosphere [*De rectificatione electrica prope demissam atmosphæram terrestrem*]. Terr. Magn., XXXVIII, 4, 303-308. Baltimore, Md. (1933). **a - 1724**

**Rossi R., Ranzi I. & De Benedetti S.** - Missione scientifica in Eritrea per lo studio della radiazione penetrante [*Agitur de missione quadam scientifica in Erythræam ad studendam radiationem penetrantem*]. Ric. Scient., a V, I, suppl. al n. 9-10, 561-605, Roma (1934). **a - 1725**

Considerazioni sull'influenza del campo magnetico terrestre e dell'assorbimento sopra la distribuzione di intensità della radiazione penetrante: (Rossi B.). Misure sull'effetto di latitudine (Rossi B., Ranzi I. e De Benedetti S.). Misure sulla distribuzione angolare di intensità della radiazione penetrante all'Asmara (Rossi B.). Misure di assorbimento sulla radiazione penetrante all'Asmara (De Benedetti S.). Ricerche sulla radiazione secondaria (Rossi B. e Benedetti S.). Ricerche sulle condizioni della ionosfera in vicinanza dell'equatore (Ranzi I.).

**Sandoval Rosendo O.** - Magnetic Work of the National Astronomical Observatory of Mexico [*De operibus magneticis peractis in Observatorio Astronomico Nationali Mexicano*]. 3 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 121-124. Washington, D. C. (1933). **a - 1726**

Account of the observations made with special reference to the drawing of isomagnetic charts and dates accumulated for this work.

**Scholz J.** - Luftelektrische Messungen auf Franz-Joseph Land [*De mensuris aëro-electricis in Terra Francisci Josephi*]. Bull. Arct. Inst., 12, 445-447. Leningrad (1933). **a - 1727**

Beschreibung des Beobachtungsraumes und der Instrumente, welche vom Vf. während der Luftmessungen an der Stillen Bucht (Tichaja) auf der Hooker Insel benutzt worden sind. Ergebnisse der Beobachtungen mit besonderer Berücksichtigung der Werte Potentialgradienten und- stroms, welche einen parallelen Gang dieser Elemente zeigen, und der Werte des Potentialgradienten bei Schneestürmen.

**Soske Joshua L.** - Differences in Diurnal Variation of Vertical Magnetic Intensity in Southern California [*Agitur de differentia in variatione diurna intensitatis magneticæ in California meridionali*]. Terr. Magn., XXXVIII, 2, 109-116. Baltimore, Md. (1933). **a - 1728**

**Steen Aksel S., Russeltvedt Nils & Wasserfall K. F.** - The Scientific Results of the Norwegian Arctic Expedition in the Gjøa 1903-1906 Part II: Terrestrial Magnetism [*De resultatibus scientificis ex Norvegica expeditione ad* Gjøa *a. 1903/1906. Pars II. Magnetismum terrestre*]. 38 figs., many tabl., Geofys. Publ., VII, 1-309. Oslo (1933). **a - 1729**

Introductory remarks on the initiation of the magnetic work: Steen, Amundsen, Schmidt and Edler. The following paper is based on the instructions worked out by Prof. Ad. Schmidt and Dr. Edler. On the making of magnetic observations in the neighbourhood of the magnetic pole. Magnetic instruments. The magnetic stations at Gjøahamn: Declination. Horizontal intensity. Inclination. Total intensity. Temperature in the variation house. Hourly values for D, H, Z, emerging from reduction of the variation curves. The magnetic station at King Point: Absolute observations. Variometer material. Extracts from the table of hourly means of D, H, Z. The magnetic North Pole: Reduction of the observations. Coordinates of the magnetic pole for 1904. 5. Observations and hourly values.

**Stetson Harlan T.** - Some Results of Further Studies in the Correlation of Cosmic Phenomena with Radio Intensities as Measured at the Perkins Observatory [*De resultatibus ex studiis ulterioribus correlationum inter phænomena cosmica et intensitates radioreceptionum ex mensuris Observatorii in* Perkins]. 3 figs., Nat. Res. Counc., Trans. Amer. Geoph., Union, 14th Ann. Meet., Apr. 27-29, 1933, 127-129. Washington, D. C. (1933). **a - 1730**

Results of further researches in the investigation of the correlation of solar activity with radio reception; comparisons of radio intensities expressed logarithmically with the sunspot-numbers; observation of the WBBM radio intensity at Delaware and lunar hour-angle, calculation of the theoretical semidiurnal tides, latitude 40°.

**Stewart R. Meldrum** - Magnetic Work of the Dominion Observatory, Canada [*De operibus magneticis in Laboratorio Canadensi*]. Nat. Res. Counc., Trans. Amer. Geoph., Union, 14th Meet., Apr. 27-29, 1933, 121. Washington, D. C. (1933). **a - 1731**

Short account of the work performed.

**Tenani Mario** - L'Osservatorio magnetico dell'Istituto idrografico della R. Marina in Genova [*Observatorium magneticum Instituti hydrographici R. Marinæ, Genuæ*]. 3 fig., Boll. Com. Naz. It. per la Geod. e Geof. (In: «La Ricerca Scientifica», II, 10, 1933, Roma), Seconda serie, 9/10, 70-78. Milano (1933). **a - 1732**

Dopo alcuni mesi di funzionamento di carattere sperimentale, col 1° agosto 1932 sono incominciate le regolari osservazioni e registrazioni dei valori degli elementi magnetici e delle loro variazioni del nuovo Osservatorio magnetico di Genova, sorto per cura dell'Istituto idrografico della R. Marina entro l'ex forte «Castellaccio». Premesse notizie storiche, sono date notizie sulla scelta della località, e sui seguenti argomenti: Descrizione dell'Osservatorio. Strumenti per le misure assolute. Strumenti per la registrazione delle variazioni. Funzionamento durante l'Anno Polare 1932-33. Risultati.

**Tenani Mario** - Rapporto sull'attività esplicata in Italia nel triennio 1930-33 nel campo del magnetismo e dell'elettricità terrestri [*Relatio de triennali Italica activitate (1930-33) pro magnetismo et electricitate terrestribus*]. Rapp. sull'attività del Comitato nel triennio 1930-32, presentati alla V Ass. gen. dell'Un. geod. e geof. intern. (Lisbona, 1933), 63-65. Padova (1933). **a - 1733**

**Weinberg B. P.** - Catalogue of Magnetic Determinations in the Polar Regions. Sections Land II [*Catalogus determinationum magneticarum in regionibus polo proximis. Sectiones terrestres. II*]. 51 pp., Dir. Centr. Serv. Météor. Unifié, U. R. S. S. Moscou (1933). **a - 1734**

**Weinberg B. P.** - Suggestions Concerning Field Magnetic Determinations in Polar Regions [*Determinationes campi magnetici in regionibus polo proximis*] (In Engl., Russ. summ.). Journ. Geophys., II, 2, 254-260. Moscow (1932). **a - 1735**

**Zaustra H.** - Einfluss des erdmagnetischen Feldes auf die Ultrastrahlung [*De influentia campi magnetici terrestris in ultraradiationem*]. Naturwiss., XXI, 27, 516. Berlin (1933). **a - 1736**

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**Antipolo Observatory** - Hourly Results of the Observations Made at the Magnetic Observatory of Antipolo near Manilo P. I., During the Calendar Year 1929 [*Resultatus ex observationibus peractis in Observatorio Magnetico in* Antipolo *apud* Manila *a. 1929*]. 47 pp., Bur. Print. Manila P. I. (1933). **a - 1737**

**Coast & Geodetic Survey** - Magnetic Work [*Opera magnetica*]. Ann. Rep. Secr. of Comm. 1933 121-123, U. S. Govmt. Print. Off. Washington (1933). **a - 1738**

Photographic records. Observations at repeat-stations. The second polar year program. Cooperation of the Naval Research Laboratory, and other corps and foundations.

**Danske Meteorologiske Institut** - Magnetisk aarbog [*Annuarium magneticum*]. G. E. C. Gad. København (1932). **a - 1739**

**Fifth Pacific Science Congress Relating to Terrestrial Magnetism and Electricity** - Resolutions of the... [*Sententiæ sumptæ*]. Terr. Magn., XXXVIII, 3, 246. Baltimore, Md. (1933). **a - 1740**

**Instituto Geofisico (Coimbra)** - Observaçoes meteorológicas, magnéticas e sismológicas feitas no Instituto Geofisico no ano de 1926 [*Observationes meteorologicæ, magneticæ, sysmologicæ peractæ in Instituto Geologico a. 1926*]. v + 44 pp., LXIII, 2ª parte, Tip. da Gráfica de Coimbra. Coimbra (1933).

(—) Observaçoes meteorológicas, magneticas e sismológicas feitas no Instituto Geofísico no ano de 1927. v + 44 pp. Coimbra (1934). **a - 1741**

**Royal Observatory (Greenwich)** - Results of the Magnetic and Meteorological Observations Made at the Abinger Magnetic Station, Surrey, and the Royal Observatory, Greenwich, respectively, in the Year 1931, under the Direction of Sir Frank Dyson [*Resultatus ex observationibus magneticis et meteorologicis peractis in statione magnetica* Abinger *in* Surrey *et in R. Observatorio in* Greenwich]. 9 pl., 113 pp., Royal Astronomer, H. M. Stationery Office, Greenwich (1933). **a - 1742**

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**An.** - Carte mondiale de la déclinaison magnétique - France [*Tabula declinationis magneticæ totius mundi. Gallia*]. Bull. Hydrogr. Int., 4, 77. Monaco (1933).

(—) Voir aussi : C. R. Acad. Sc., n° du 13 Mars, 1933. **a - 1743**

Description d'une carte de la déclinaison magnétique sur l'ensemble du globe, établie pour l'époque du 1-er Janvier 1931, dressée par M-elle G. Hompry et présentée devant l'Académie des Science ; la carte a été dessinée à l'échelle de 1 : 20.000.000 sur l'Equateur.

## Gravitas.

**Brown Edwin J.** - New Gravity-Connection with Potsdam, Germany [*Agitur de colligatione observationum gravitatis cum* Potsdam (*Germania*)]. Nat. Res. Counc. Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 42-44. Washington, D. C. (1933). **a - 1744**

After having emphasized the particular interest to note the changes in the absolute values of gravity which have been determined at different times for the same station, the author communicates the decision taken in 1932 to establish a direct connection between Washington and Potsdam and gives an outline of the complete program of observation and the apparatus and means for their execution with the purpose to realize the full international significance from Heyl's work of the absolute determination of gravity made at the U. S. Bureau of Standards.

**Brown Townsend Thomas** - The Gravity Measuring Cruise of the U. S. Submarine S-48. Narrative of the Cruise [*Navigatio gravimetrica peracta navi submergibili S-48 ad Status Foederatos pertinente. Navigationis enarratio*]. 2 pls., 1 chart., U. S. Hydrogr. Off., Navy-Princeton Grav. Exped., 1932, 3-13. Washington, D. C. (1933). **a - 1745**

Establishment of a new base station and calibration of the Meinesz apparatus in preparation of the gravity cruise of U. S. S. S-48 at the Naval Research Laboratory, Bellevue, Anacostia, D. C. Transportation of equipment. The Santiago earthquake. Narrative of the cruise : the route of the submarine stations established. Echo soundings. Gravity observations and chronometer corrections.

**Bullard E. C.** - The Effect of a Magnetic Field on Relative Gravity Determination with Invar Pendulum [*Effectus campi cuiusdam magnetici in determinationem gravitatis relativæ apparatus pendularis* Invar *auxilio*]. Proc. Phil. Soc., XXIX, Pt. 2, 288-296. Cambridge (1933). **a - 1746**

**Collins E. B.** - The Gravity Measuring Cruise of the U. S. Submarine S-48. Computations of Sea Observations for Determining the Value of Gravity [*Navigatio gravimetrica navis submergibilis S-48 ad Status Foederatos pertinentis. Computatio observationum, navigatione perdurante peractarum, ad valorem gravitatis determinandum*]. 2 tabl., U. S. Hydrogr., Off., Navy-Princeton Gravity Exped. West. Indies, 1932, 15-26. Washington, D. C. (1933). **a - 1747**

Final results of the computations for all harbor and sea gravity stations taken during the expedition of the submarine S-48, started by the Naval Observatory according to the form shown in the appendix of Publications of the U. S. Naval Observatory, vol. XIII, app. I (1930). This form has also been adopted by the Hydrographic Office. Report on corrections of the values obtained.

**Ertel H.** - Die Grundgleichungen für electromagnetische Vorgänge im indischen Gravitationsfeld im Hinblick auf die Frage des erdmagnetischen N-feldes [*De æquationibus fundamentalibus ad studia peragenda electromagnetica campi terrestris gravitatis pro campo magnetico nordico*]. Veröff. met. Inst., 395, 127-129. Berlin (1933). **a - 1748**

**Gennaro Ida** - Determinazione di gravità relativa tra l'Istituto Idrografico della Regia Marina in Genova e Andrate [*Determinationes gravitatis relativæ inter Institutum Hydrographicum Genuense R. Marinæ et* Andrate]. Atti R. Acc. Sc. di Torino. Cl. Sc. Fis., Mat. e Nat., CLI, v. 69, tomo I, disp. 1, 79-88. Torino (1934). **a - 1749**

In questa nota è esposto il procedimento tenuto nelle osservazioni di gravità relativa tra l'Istituto Idrografico della R. Marina in Genova e Andrate. La precisione dei risultati è stata eseguita sul metodo di Borras.

**Guzzo Giovanni** - Determinazioni di gravità relativa eseguite in Sicilia [*Gravitatis relativæ determinationes in Sicilia peractæ*]. (Maggio-novembre 1930), 1 fig. f. t., Universo, 11, 849-860. Firenze (1933). **a - 1750**

Esposizione sui metodi adottati e sui materiali impiegati nei lavori gravimetrici di campagna eseguiti in Sicilia dal maggio al novembre 1930. L'A. svolge tutti i calcoli tenendo conto delle riduzioni del Faye, del Bouguer e dell'influenza dovuta alla topografia per un raggio di Km. 40, ricavando infine i valori delle anomalie della gravità in ogni singola stazione.

**Heyl P. R.** - Progress-Report on the Absolute Determination of Gravity at Washington [*Relatio de progressibus in determinationem absolutam gravitatis* Washington *peractam*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 42. Washington, D. C. (1933). **a - 1751**

Abstract of a paper dealing with the work of U. S. Bureau of Standard and concerned with absolute determination of gravity.

**Joyce J. W.** - Theory of the Torsion-Balance with a Preliminary Study of a Modification of the Instrument to Decrease Time of Gravity-Measurement [*Libræ torsionalis theoria cum studio priore cuiusdam modificationis in apparatum ferendæ ad tempus mensuræ gravitatis minuendum*]. 21 figs., Dpt. Comm. U. S. Bur. Mines, Techn. Pap., 546. 46. Washington, D. C. (1933). **a - 1752**

**Lambert W. D.** - Tables for the Isostatic Reduction of Gravity. A Report of Progress [*Tabulæ pro reductione isostatica gravitatis. Relatio de progressibus obtentis*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 63-65. Washington, D. C. (1933). **a - 1753**

Description of the tables used by the U. S. Coast and Geodetic Survey for the calculation of the various isostatic reductions, which are purposely adapted to rapid computation according to some very definite and special form of the hypothesis of isostasy. They represent a new set of tables of the Cassinis type but differ in some particulars from the Cassinis tables of 1911. These particulars are dealt with in this paper.

**Lejay P.** - Les caractères généraux de la gravité le long de la côte sud de Chine [*Gravitatis præcipuitates generales præter litus meridionale Sinense*]. 1 fig., 1 tabl., C. R. Acad. Sc., CIC, 26, 1589-1591. Paris (1934). **a - 1754**

Mesures de gravité faites sur la côte sud de la Chine avec le gravimètre Holweck-Lejay N. 42. Les valeurs des résultats sont données dans une table.

**Soler E.** - Lista di stazioni di riferimento nazionale per misure gravimetriche [*Index stationum nationalium pro mensuris gravimetricis*]. (Rapporto alla commissione internazionale per la gravimetria. (Lisbona, 1933), 7 pp., Tip. del Seminario. Padova (1933). **a - 1755**

La presente lista ha lo scopo di stabilire i criteri per una nuova rete internazionale, da sostituire a quella nota, calcolata da Borrass nel 1909. Sono elencate le stazioni di riferimento europee e transoceaniche fino adesso note.

**Somigliana C.** - Les expressions finies de la pesanteur normale [*Expressiones finitæ gravitatis normalis*]. Bull. Géod., 38, 178-187. Paris-Toulouse (1933). **a - 1756**

**Sverdrup H. U.** - Pendulum Observations near Cape Chelyuskin [*Observationes pendulares apud promunturium* Chelyuskin]. Tabl., The Norw. North Pol. Exped. « Maud » 1918-1925, Scient. Res., I, 8, 1-9. Bergen (1933). **a - 1757**

Some remarks on the use of the v. Sterneck pendulum apparatus. (See descr. in Scient. Res. Exped. Vol. II, 8, Christiania 1901). Dates and values of observations expressed in tables and formulas. It is concluded that the acceleration of gravity is nearly normal in the vicinity of Cape Chelyuskin.

**Swick C. H.** - Recent Progress in Gravity-Work [*Progressus recentiores in gravitatem studendam*]. 1 map, Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 53-56. Washington, D. C. (1934). **a - 1758**

Account of the second year of use of the Brown gravity-apparatus, which has been as successful as the first year. During the year under consideration about 110 stations have been determined by the parties of the U. S. Coast and Geodetic Survey, in a working time of eight months or less. The other four months of the year were devoted to astronomical observations and other geodetic work. All determinations of gravity made during the past year have been based on the new Washington base-value and in connection with Potsdam. Some information on new progress in developing gravity-apparatus that will give the required accuracy with much less effort and time that was required with the older types.

**Vening Meinesz F. A.** - Gravity Expedition at Sea (1923-1930). Vol. I, The Expedition, the Computations, the Results [*Navigatio gravimetriæ causa in mari studendæ (1923-1930). Vol I. Expeditio, calculi, resultatus*]. ill., 109 pp., Netherl. Geod. Comm. Delft (1932). **a - 1759**

**Vening Meinesz F. A.** - Intensité de la pesanteur sur mer [*De gravitatis intensitate in mari*]. Bull. Géod., 37, 115-121. Toulouse-Paris (1933). **a - 1760**

Rapport de la Commission. Programme pour les discussions. Voeux pour la coopération internationale aux observation moyennant des sous-marins. Appareils, méthodes d'observations et de calcul, de réduction des résultats, d'interprétation des résultats.

**Vening Meinesz F. A.** - Zwaartekrachtsexpeditie van Hr. Ms. K. XVIII [*Expeditio navis K. XVIII inquisitionibus in gravitatem peragendis*]. Tijdschr. Kon. Ned Aardr. Gen. Amsterdam, LI, 6, 893-894. Leiden (1934). **a - 1761**

Some information on the expedition to be undertaken. Problems to be elucidated especially in the Atlantic Ocean.

**Visser S. W.** - Magnetical Anomalies in the Dutch East Indian Archipelago [*Anomaliae magneticae in archipelago Indiarum Orientalium*]. maps, Proc. Kon. Akad. v. Wetensch., XXXVII, 118. Amsterdam (1934). **a - 1762**

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**Survey of India** - Gravity Anomalies and the Structure of the Earth's Crust [*De anomaliis gravimetricis et structura corticis terrestris*]. tabl. & maps, Prof. Paper, 27, Survey of India, Dehra Dun. (1932). **a - 1763**

This paper shows the results of gravity observations with modern apparatus obtained during the last few years. Several sketches are given showing the geological map of India; gravity anomalies and the location of pendulum stations given annually are reproduced. In the conclusions some information is given concerning a theory advanced on the causes of the gravity anomalies and the results of the numerical tests of the aforesaid theory, which seem to be satisfactory.

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**G. A.** - La sezione Scienze Militari nella XXII riunione della Società Italiana per il progresso delle scienze [*Sectio scientiarum bellicarum XXII Congressu Societatis Italicæ pro scientiarum progressibus perdurante*]. Riv. Maritt., Anno LXVII, 1, 65-74. Roma (1934). **a - 1764**

V'è un cenno sulla crociera gravimetrica del Somm. V. Pisani.

## Sysmologia et vulcanismum bacini oceanici.

**Birringer Charles** - Experiences over a Submarine Epicenter [*De epicentro submarino. Experientiæ peractæ*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 260. Washington, D. C. (1933). **a - 1765**

An account of author's impressions in the late afternoon of March 10, 1933 on board the 10,000-ton cruiser « Mouisville » completed by extracts from the records of the U. S. S. « West Virginia » and the Naval Air Station at San Diego, concerned with the earthquake.

**Blake A. & McComb H. E.** - Analyses of Rates of Rotation of Recording-Drums [*Analysis pro gradibus rotationis in cylindris registratoribus*]. 2 figs., 3 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 324-329. Washington, D. C. (1933). **a - 1766**

This paper contains an analysis of results obtained by the method used by the Coast and Geodetic Survey in testing recorders, described by McComb in the March, 1932, issue of the Bulletin of the Seismological Society of America, on seven seismograph-recorders.

**Bodle R. R.** - Epicenter-Determination. A Discussion of Methods [*Discussio circa methodus pro epicentris determinandis*]. 11 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 261-268. Washington, D. C. (1933). **a - 1767**

On hand of eleven figures the author discusses the variable curves elaborated by Scrase in order to determine the deviation of seismic-waves transmission from general rules. Some considerations concerned with the application of the above curves.

**Brunner G. J.** - The Earthquake of September 6, 1933, and Its Bearing on the Problem of the Deep Earthquake [*De terræ motu die 6 mensis Septembris 1933 eiusque correlatione cum problemate circa terræmotus profundos*]. 10 figs., 2 tabl., Nat. Res. Counc. Trans., Amer. Geoph. Union, 15th Ann. Meet., Part I, 72-77. Washington, D. C. (1934). **a - 1768**

Some considerations concerned with the observation of the quake of September 6, 1933, which contribute to the development of the depth-chart and should help towards the solutions of the problem of the deep-focus earthquakes. This earthquake recorded throughout the world clearly manifested an exceptionally deep origin. Its epicenter was between the Fiji and Kermadec Islands.

**Byerly Perry & Sparks Neil R.** - Earthquakes in Northern California and the Registration of Earthquakes at Berkeley-Mount Hamilton-Palo Alto, San Francisco from April 1, 1932 to September 30, 1932 [*De terræ motibus in California nordica deque terræ motuum inscriptionibus in* Berkeley *a die 1 mensis Aprilis 1932 ad diem 30 mensis Septembris 1932*]. Tabl., Bull. Seism. Stat., III, 3, 97-150. Berkeley, Calif. (1933). **a - 1769**

Earthquakes in Northern California. The registration of earthquakes: symbols and notations employed. Constants and tabulations of shocks at the places in the title.

**Byerly Perry & Sparks Neil R.** - The First Preliminary Waves of the California Earthquake of June 6, 1932 [*De prioribus undis terræ motus californiensis die 6 mensis Junii 1932*]. 1 fig., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 254-256. Washington, D. C. (1933). **a - 1770**

Results of the observations made by the writer on June 6, 1932, at 44 minutes past midnight, when the region about Humboldt Bay was severely shaken by an earthquake which attained a maximum intensity of VIII on the Rossi-Forel scale. Travel-time curves and records.

**Caloi P.** - La stazione sismica di Trieste nella sua nuova sistemazione [*De statione sysmica Tergestina eiusque nova constitutione*]. 1 fig., 8 tav. f. t., Rapp. sull'attività del Comitato italiano per la Geodesia e la Geofisica nel triennio 1930-32, presentati alla V. Ass. gen. dell'Un. geod. e geof. intern. (Lisbona 1933), 77-82. Padova (1933). **a - 1771**

Sistemazione, funzionamento, sismografi a registrazione meccanica. Descrizione del fotosismografo Alfani orizzontale. Analisi dei sismogrammi.

**Clements Thomas** - Notes on the Fall of Columns during the Long Beach Earthquake [*De ruina aliquarum columnarum per terræ motum in* Long Beach]. 1 fig., Science, LXXVIII, 2014, 100-101. New York (1933). **a - 1772**

**Davis Watson** - Proposed New Earthquake-Code [*De proposito novo quodam codice sysmologico*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 336. Washington, D. C. (1933). **a - 1773**

Brief account of the work of a special Committee appointed in view of the revision of the earthquake-code.

**Davis W. M.** - The Long Beach Earthquake [*Terræ motus in* Long Beach]. 6 figs., Geogr. Rev., XXIV, 1, 1-11. New York (1934). **a - 1774**

Description of the Long Beach earthquake which occurred on March 10th, 1933, and which, as it is believed, has been caused by a small slip on the southeastward submarine extension of the Inglewood fault. Geological relations. Report of the Committee on Earthquake protection. Special considerations are concerned with the effect of the earthquake on the tourist industry.

**Davison C.** - The Hawke's Bay Earthquake of February 3, 1931 [*Terræmotus in baja* Hawke *die 3 mensis Februarii 1931*]. 2 figs., Nature, CXXXIII, 3370, 841-842. London (1934). **a - 1775**

New Zealand has been visited by several earthquakes with great crustal changes, such as those of 1823, 1848, 1855 and 1929. For the first time in its history New Zealand on Febr. 3, 1931 experienced an earthquake in the neigbourhood of important towns. This earthquake is here described and isoseismal lines and epicentres illustrated.

**Davison Charles** - The Earthquake-Series of Itô (Japan) [*De terræ motibus in* Itô (*in Japonia*)]. 2 figs., Geogr. Journ., LXXXIII, 3, 228-231. London (1934). **a - 1776**

After a brief comparative description of the several earthquakes which visited the district of Itô (Japan) in 1930, the author gives an account of the erection of five stations surrounding the epicentral area of the earthquakes, of the observations carried out with special reference to a comparison made between the frequency of the shocks and the tidal phases at Misaki. He also communicates the results of the accurate survey of the neighbourhood of Itô made after every earthquake.

**Escher B. G.** - On the Relation between the Volcanic Activity in the Netherlands East Indies and the Belt of Negative Gravity Anomalies Discovered by Vening Meinesz [*De correlatione inter activitatem vulcanicam in Indiis Orientalibus et cincturam anomaliarum gravitatis negativæ*]. Kon. Akad. v. Wet. Proc., XXXVI, 677-684. Amsterdam (1933). **a - 1777**

L'A. est d'avis que le parallélisme des arcs volcaniques de l'archipel des Indes Orientales et de l'axe des anomalies citées dans le titre suppose une corrélation entre ces phénomènes.

**Heck N. H.** - Seismology and the Island-Arcs [*De sysmologia et arcubus insularum*]. Nat. Res. Counc. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, Append. B, Rep. Comm. Ocean. Basins, 20-21. Washington, D. C. (1933). **a - 1778**

Relation of seismology to island-arcs as illustrated in the West Indies region; special problems of the region; purposes of earthquake studies; defects in present instrumental recording; desirability of correlation of gravity-observations and determination of submarine contours with the seismic activity.

**Heck N. H.** - Review of Seismology of the United States [*De sysmologia in Statibus Foederatis Americæ*]. 1 tabl., Nat. Res. Counc. Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 318-321. Washington, D. C. (1933). **a - 1779**

Review of the accomplishment of the Coast and Geodetic Survey, followed by a synopsis of the work of other organizations.

**Heck N. H.** - Seismological Progress Report [*Relatio de progressibus scientiae sysmologicae*]. 1 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part. I, 58-61. Washington, D. C. (1934). **a - 1780**

In the present report an account is given listing the activities and referring under each to the appropriate organization, under the following headings: Teleseismic stations and instruments, Nearby earthquake stations, Strongmotion stations, Analyses of records and travel-time tables, Determination of epicenter, Non-instrumental earthquake information, Geological studies of earthquake regions, Seismic sea-waves or tidal waves, Miscellaneous. In a table is given a statistical summary of station-operation, April 1, 1933 to April 30, 1934.

**Imamura Akitune** - The S. Atlantic Earthquake of June 27, 1929, as Registered at Tokyo. An Observation of Rigid Waves Transmitted across the Earth's Inner Core [*De terræmotu in Atlantico meridionali die 27 mensis Junii 1929 in* Tokio *inscripto. Agitur de observatione undarum rigidarum quæ transmissæ fuerunt per nucleum internum terræ*]. Proc. Imp. Acad., VIII, 354-357. Tokyo (1932). **a - 1781**

The distance of the present earthquake — occurred at 30° W., 50° S., a place in the South Atlantic Ocean near the Sandwich Islands — was of 160°,4 of arc. Appearance of the S' phase, which traversed the inner core of the earth as rigid waves. Appearance of the P' phase. Constants of the instruments.

**Imamura Akitune** - On Crustal Deformations Preceding Earthquakes [*De corticis terrestris deformationibus terræmotus præcedentibus*]. Jap. Journ. Astron. Geophys., X, 2, 81-92. Tokyo (1933). **a - 1782**

Relation existing between earthquakes and the vertical component of pre-seismic crustal deformation. Importance of horizontal component. Historical remarks from the year 684 to nowadays.

**Imamura Akitune** - Past Tunamis of the Sanriku Coast [*De* Tunamis *apud litus* Sanriku]. Jap. Journ. Astr. & Geoph., XI, 2, 79-93. Tokyo (1934). **a - 1783**

History and description of the most important tunamis that took place off the Sanriku coast in the North East part of Japan.

**Imamura Akitune & Kawase Zirô** - The Sanriku Tunami of 1933 [*De* Tunami *in* Sanriku *a. 1933*]. 10 figs., Jap. Journ. Astron. & Geoph., XI, 1, 17-35. Tokyo (1933). **a - 1784**

On March 3 (Jap. Stand. Time), March 2 (G. M. T.) a large earthquake occurred off the Sanriku coast. A description is given of the tunami which took place about half an hour after the occurrence of the earthquake. All the possible data are gathered in this interesting paper.

**Imamura Akitune & Kawase Zirô** - A New Volcano off the East Coast of Alaid Island [*Agitur de invento vulcano longe a litoribus orientalibus Insulæ* Alaid]. 7 figs., Jap. Journ. Astron. & Geoph., XI, 3, 113-116. Tokyo (1934). **a - 1785**

Account of the explosion of a new volcano and the formation of a new islet about 900 m. off the east shore of Alaid Island, the northernmost island of the Kuriles on January 26th 1934.

**Ishimoto M.** - Preliminary Notes on the Tunami of March 2, 1933 (G. M. T.) and an Outline of the Investigations now being made concerning it at the Earthquake Research Institute [*Nota de* Tunami *die 2 Mensis Martii 1933*]. 2 figs., Jap. Journ. Astron. & Geoph., XI, 1, 1-9. Tokyo (1933). **a - 1786**

General description. Seismometrical observations. Mareograms. The maximum height of waters. Geological studies. Damages. Other accompanying phenomena of tunami. Conclusion.

**Itoo Tokunosuke** - Sur les séismes des grands fonds au Japon [*De terræ motibus in maxima profunditate in Japonia*]. 3 fig., Jap. Journ. Astr. & Geoph., XI, 2, 71-78. Tokyo (1934). **a - 1787**

L'auteur, admettant la théorie de Wegener, explique pourquoi les épicentres se distribuent azimutalement et circonférenciellement et comment la sismicité et le volcanisme se lient l'un avec l'autre.

**Katô Yosio** - Volcanic Action and the Magnetic Disturbance [*De actione vulcanica ac magneticis perturbationibus*]. (In Jap.). 10 figs., 1 tabl., Disin (Earthquake), 5, 156-170. Tokyo (1933). **a - 1788**

The autor studies the effect of some earthquakes on the anomalies of the secular change in the magnetic field in Japan.

**Katô Yosio** - Seismic and Volcanic Activities and Changes in the Earth's Magnetic Field [*De activitate sysmica et vulcanica deque mutationibus in campo magnetico terrestri*]. (In Jap.). 9 figs., 4 tabl., Disin (Earthquake), 5, 309-319. Tokyo (1933). **a - 1789**

According to the author the anomalies of the secular variation of the horizontal component of the magnetic field in seismic or volcanic regions are approximately represented by the field due to a simple doublet placed at corresponding centres. On similar argument see the same journal p. 573-584.

**Ludy A. K.** - Adventures of Two Seismograph-Tenders During a Severe Earthquake [*Agitur de fortunis duorum observatorum apparatuum sysmographicorum permagno terræmotu perdurante*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 256-257. Washington, D. C. (1933). **a - 1790**

Not a technical report, but rather an account of the adventures of Ralph S. McLean and the writer while attending the strong-motion seismograph of the Coast and Geodetic Survey which operated at Long Beach and Los Angeles at the time of the earthquake of March 10, 1933.

**Lych Joseph S. J.** - A Review of the Earthquakes of the Past Year [*De terræ motibus anno elapso*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 253-254. Washington, D. C. (1933). **a - 1791**

Epicenters, geographic distribution, pecularities of the earthquakes recorded, of which two have been of most interest, those of March 3 in Japan, and of March 10, 1932 in California.

**Macelwane J. B.** - Report of the Jesuit Seismological Association for 1933 [*Relatio sysmologica Societatis Jesu a. 1933*]. 2 maps, Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 62-64. Washington, D. C. (1934). **a - 1792**

Brief account of the work of the Jesuit Seismological Association, which is a voluntary organization of seismological stations which are owned and operated by the Jesuit universities and colleges in the United States, with especial mention of the determination of epicenters.

**Matuzawa T., Kanbara K. & Minakami T.** - Horizontal Movement of Water in the Tunami of March 3, 1933 [*De aquæ motu horizontali,* Tunami *perdurante, die 3 mensis Martii 1933*]. 4 figs., 1 diagr., Jap. Journ. Astron. & Geoph., XI, 1, 11-16. Tokyo (1933). **a - 1793**

Article of theory applied to practical examples. Discussion of results.

**McComb H. E.** - Strong-Motion Seismograph Equipment and Installations [*De instrumentis et constructionibus, observationibus maximorum terræmotuum peragendis*]. 10 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 268-272. Washington, D. C. (1933). **a - 1794**

Account of the development of accelerometers and tiltmeters used in the investigation of strong seismic motion carried out by the Coast and Geodetic Survey. Records obtained from accelerographs at three stations.

**Merritt G. E.** - Installation of Tiltmeters [*De constitutione cuiusdam inclinometri*]. 4 figs., Nat. Res. Counc. Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 65-69. Washington, D. C. (1934). **a - 1795**

Description of the design, installation and work of a tiltmeter designed at the Bureau of Standard ; the tiltmeter is an instrument for measuring changes of level, particularly such small changes in level that great magnification of some sort must be used to make them evident. The importance of the use of tiltmeters for the study of preseismic tilts is emphasized.

**Neumann Frank** - United States Earthquakes 1932 [*Terræmotus in Statibus Foederatis Americæ a. 1932*]. 4 figs., U. S. Govmt. Print. Off., Coast & Geod. Surv., Ser. nº 563, 23 pp. Washington, D. C. (1934). **a - 1796**

This publication is a summary of earthquake activity in the United States and the regions under its jurisdiction for the calender year 1932. Earthquake activity in the various states. Instrumental reports. Summary of instrumental results. Miscellaneous seismological activity : geodetic work, hydrographic work, tidal observations.

**Oddone Emilio** - Rapporto sull'attività esplicata dall'Italia nel triennio 1930-32 nel campo della sismologia [*Relatio de triennali activitate italica sysmologica (1930-32)*]. Rapp. sull'attività del Comitato naz. italiano per la Geodesia e la Geofisica nel triennio 1930-32, presentati alla V. Ass. gen. dell'Un. geod. e geof. intern. (Lisbona, 1933), 73-75. Padova (1933). **a - 1797**

Elenco delle principali pubblicazioni di sismologi italiani a partire dal 1930. Osservatori sismici italiani : loro attività e attrezzatura.

**Poulter Thomas C.** - The Seismological Program of the Byrd Antarctic Expedition II [*Ratio operum sysmologicorum inter secundam Expeditionem Antarcticam a* Byrd *susceptam peractorum*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, 316-317. Washington, D. C. (1933). **a - 1798**

Summary of the seismological program to be carried on, conditions permitting, during the stay of the Byrd Antarctic Expedition II at Little America on the Bay of Whales.

**Rappleye Howard S.** - First-Order Levelling as an Aid in Seismological Investigation in the United States [*Livellationes primi gradus ac auxilium inquisitionibus sysmologicis in Americæ Statibus Foederatis*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 69-72. Washington, D. C. (1934). **a - 1799**

The author points out the usefulness of any levelling in connection with investigations of earthquakes. On hand of practical examples of levelling made in California he shows that most of activity occurred in this region allows to lay foundations on which to base future work as earthquakes occur or as re-levelling is run in an effort to detect slow motions which may presage earthquake.

**Sanchez Pedro C.** (transl. by **J. L. Thomas**) - The Bay of Acapulco and Its Relation to the Earthquakes in the Southern Part of the Mexican Republic [*De baja* Acapulco *eiusque correlatione cum terræ motibus in regione meridionali Reipublicæ Mexicanæ*]. 3 maps., Nat. Res. Counc. Trans., Amer. Geoph. Union, 15th Ann. Meet., Part I, 83-91. Washington, D. C. (1934). **a - 1800**

After a discussion of the general ideas concerning the orogeny of the Mexican Republic, the author takes in consideration the range that formed the Bay of Acapulco and claims on hand of the results of his own observations and of those of Mr. de Lapparent, that the Bay of Acapulco is of tectonic origin and is intimately connected with seismic phenomena at least as far as the southern part of the Republic of Mexico is concerned.

**Scarpellini Antonio** - L'impianto di un sismografo « Agamennone » a pendoli orizzontali nell'Osservatorio di Fano [*De constitutione cuiusdam sysmographi* « Agamennone » *nomine, oscillis horizontalibus præditi, in Observatorio urbis* Fano]. Meteor. pratica, 5-6, 254-256. Perugia (1933). **a - 1801**

**Severit W.** - Die Anthropogeographische Bedeutung der Erdbeben [*De terræ motibus eorumque significationibus antropographicis*]. 1 carte, Matériaux pour l'Etude des Calamités, 30/31. Genève (1934). **a - 1802**

Le Dr. A. Severit donne, dans un long article, un utile résumé de la distribution des tremblements de terre dans ces derniers temps avec regard spécial à ceux qui ont produit plus des ravages. Une carte montre le nombre de ces calamités pendant le dernier siècle. Etude des mesures de prédiction.

**Steikhardt L.** - Erdbebentätigkeit am Westrand des Mittelmeers und ihre geologische Bedeutung [*De frequentia et momento terræ motuum in bacino occidentali maris Mediterranei*]. Geologie, 23 pp., Diss. Jena (1933). **a - 1803**

**Taber Stephen** - The Location of Earthquake Epicenters [*De epicentris terræ motuum recognoscendis*]. Science, LXXVIII, 2022, 283. New York (1933). **a - 1804**

**Tsuboi Chûji** - Investigation on the Deformation of the Earth's Crust Found by Precise Geodetic Means [*Investigationes in deformitatem corticis terrestris Geodesiæ auxilio*]. 143 figs., 60 tabl., Jap. Journ. Astron. Geophys., X, 2, 93-248. Tokyo (1933). **a - 1805**

Long, patient, detailed paper. All the possible measures have been taken and every examination and calculation have been made of vertical and horizontal deformations of the Earth's Crust.

**Visser S. W.** - Aardbevingen in Nederlandsch Indie [*Terræ motus in Indiis Hollandicis*]. Tijdschr. Kon. Ned. Aardr. Gen, Amsterdam, LI, 4, 629-630. Leiden (1934). **a - 1806**

Vorlesung mit Lichtbildern gehalten am 8. Mai in Utrecht. Regelmässige Registrierungen über Erdbeben liegen seit 1844 vor, von denen die schwersten in den letzten zwanzig Jahren erschienenen hier erwähnt sind. Besonders schwer heimgesucht sind die Randgebiete, die Küsten des Indischen Ozeans: Sumatra, Java und die kleinen Sunda-inseln, die Molukken und Celebes. Die meisten Bewegungen rühren aus dem Seeboden her.

**Williams Earl L.** - Earthquakes observed with a Telescope [*Terræ motus per telescopium observati*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 14th Nat. Meet., Apr. 27-29, 1933, 260-261. Washington, D. C. (1933). **a - 1807**

Brief account of the observations by means of the sensitive levels attached to the zenith-telescope of the International Latitude Observatory, Gaithersburg, Maryland, of earthquake-waves originated at a considerable distance.

**Wood Harry O.** - Note on the Long Beach Earthquake [*De terræ motibus in* Long Beach]. Science, LXXVIII, 2022, 281-283. New York (1933). **a - 1808**

**Zies E. G.** - Volcanic Activity in 1933 [*Activitas vulcanorum a. 1933*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet. Part I, 246-248. Washington, D. C. (1934). **a - 1809**

The sources of the present information are: Bulletin of the Netherlands East Indian Volcanological Survey, Bandoeng, Java; The Volcano Letter of the Hawaiian Volcano Observatory; Zeitschrift für Vulkanologie; private communications, and consular and newspaper reports. It includes not only the volcanic disturbances of far-reaching influence but also those whose effect was confined to the vent itself.

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**Coast & Geodetic Survey** - Seismological Work [*Opera sysmologica*]. Ann. Rep. Secr. of Comm. 1933, 123-125. U. S. Govmt. Print. Off., Washington (1933). **a - 1810**

Reports collected from some of the 25.000 cooperative observers whenever a quake occurs. Survey at San Juan, Tucson, Ukjal and Sitka. Installation of instruments for recording strong earth motions. Cooperation with the Bureau of Standards, Massachusetts Institute of Technology, University of Virginia. Interesting effects of a distant earthquake recorded in the San Francisco Bay.

**Imperial Earthquake Investigation Council** - Notes on the Prevention of Damage from Tunami [*De providendis damnis terræ motuum causa*]. Jap. Journ. Astr. & Geoph., XI, 1, (8). Tokyo (1933). **a - 1811**

**Université de Strasbourg. Faculté des sciences** - Annuaire de l'Institut de Physique du Globe 1931. Séismologie [*Annuarium Instituti nomine* de Physique du Globe *a. 1931. Sysmologia*]. 90 pp., II.me Partie, Impr. G. Panc. Mende (1932). **a - 1812**

Observations des stations françaises et renseignements transmis par le Ministère des Colonies.

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**C. D.** - The Japanese Seismic Sea-waves of March 3, 1933 [*Undæ marinæ ex terraemotu in Japonia*]. 1 fig., Nature, CXXXIII, 3350, 72-73. London (1934). **a - 1813**

On the tunamis of Sanriku coasts. There is a brief bibliography of Japanese authors on the argument.

**M. B.** - Le magnétographe Nodon en géophysique [*De magnetographo e systhemate* Nodon *apud Geophysicam*]. Bull. Soc. Océanogr. France, 72, 1279-1280. Paris (1933). **a - 1814**

Possibilité de prévoir les troubles sismiques à l'aide du magnétographe Nodon. Les étapes successives de la découverte de M. Nodon, illustrées sur la base d'une liste bibliographique d'ouvrages concernant l'appareil inventé par le physicien français.

# III.

# OCEANOGRAPHIA BIOLOGICA.

## GENERALIA.

### Instituta - Musea - Aquaria - Relationes annuae - Congressus et conferentiae - Expeditiones oceanographicae - Biographiae.

**Andersson K. A.** - Baltic Area, 1932 [*Area Maris Baltici, a. 1932*]. 1 fig., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, 60-64. Copenhague (1933). **b - 1**

Résumé of the investigations carried out by the different countries bordering the Baltic and whose main object were, in accordance with the programme adopted in 1932, the herring, the salmon and the flounder.

**Andersson K. A.** - Baltic Area, 1933 [*Area Maris Baltici, a. 1933*]. Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIX, 64-67. Copenhague (1934). **b - 2**

Denmark : Biology, hydrography. Finland : Biology, hydrography. Germany. Latvia : Statistics, hydrography, biology, various investigations. Poland : Hydrography, biology. Sweden : Biology, hydrography.

**Bartsch Paul** - Station Records of the First Johnson-Smithsonian Deep-Sea Expedition [*Relatio ex operibus peractis priore expeditione Johnson-Smithsoniana perdurante in maribus profundis*]. 1 pl., 1 map, Smiths. Miscell. Collect. (Publ. 3224), XCI, 1, 1-31. Washington, D. C. (1933). **b - 3**

Report of 109 stations made during the Johnson-Smithsonian Deep-Sea Expedition to the Puerto Rican Deep on the yacht « Caroline » with notes on the sonic sounding operations conducted and organisms collected at each station.

**Beebe William** - Half Mile Down [*Brachia 500 in profundum*]. 88 pp. with figs., 8 pl., 363 pp., Harcourt, Brace & Co. New York (1934). **b - 4**

A wonderer under sea. The first divers. Proto-bathyspheres. The kingdom of the helmet. The birth of the bathysphere. A first round trip to davy Jones's locker. Contour diving. Renaissance. At the end of the spectrum. The bathysphere broadcast. A descent into perpetual night. Appendices : 1) Courtesies of 1934 ; 2) The bathysphere of 1930 by Otis Barton ; 3) The bathysphere of 1934 by John Tee-Van ; 4) The history of diving bibliography by Jocelyn Crane ; 5) Bathysphere dive thirty-five by John Tee-Van ; 6) Unedited telefone conversations on dives thirty and thirty-two by William Beebe and Gloria Hollister ; 7) Classified résumé of organisms observed by William Beebe and Jocelyn Crane ; 8) Summary and conclusions by liam Beebe.

**Beebe William** - Activities of the Department of Tropical Research. Season of 1934 [*De activitate a* Department of Tropical Research *peracta, a. 1934*]. 1 fig., Bull. New York Zool. Soc., XXXVII, 6, 155-156. New York (1934). **b - 5**

Investigations being carried on by the staff of this Department. Present record descents in the bathysphere. Visitors.

**Beebe William** - Five Hundred Fathoms Down [*Agitur de quadam immersione in profundum brachia 500*]. 9 figs., Bull. New York Zool. Soc., XXXVII, 6, 157-170. New York (1934). **b - 6**

The A. gives us a vivid description of the different deep dives he undertook in the batysphere near Nonsuch Island in August 1934. Some unusual deep sea Fishes observed are also mentioned. Among the figures accompanying the text there are drawings of the Rotterdam ship, one of the first submarines ever constructed, and of the evolution of human diving.

**Beebe William** - Oceanographical Work at Bermuda of the New York Zoological Society [*De operibus oceanographicis in insulis Bermudis peractis a* New York Zoological Society]. Science, LXXX, 2083, 495-496. New York (1934). **b - 7**

The various descents of the bathysphere. The different depths reached. The new system of purification of the air in the bathysphere. The animal lights and new organisms observed at different depths.

**Bertolini Fausta** - Paolo Enriques. 1 foto., Riv. Biol., XV, 5/6, 650-662. Perugia (1933). **b - 8**

Vita ed opera dell'insigne zoologo scomparso. Elenco delle sue pubblicazioni e di quelle degli allievi nel campo della Fisiologia Comparata, sui Protozoi, sulla Genetica, Evoluzione, Sistematica e Faunistica.

**Bigelow Henry B.** - Fourth Annual Report of the Director for the Year 1933 [*Quarta relatio annua a Directore redacta a. 1933*]. Woods Hole Oceanogr. Instit., Rep. 1933, 8-17. Woods Hole, Mass. (1934). **b - 9**

I. Equipment of the Woods Hole Oceanographic Institution ; II. Library ; III. Personnel ; IV. Foreign travel by the Staff ; V. Publication ; VI. Cooperation ; VII. Field work ; VIII. Scientific program.

**Blegvad H.** - Transition Area Report, 1932 [*Relatio de area transitionis, a. 1932*]. 5 figs., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, 2ème partie, 50-59. Copenhague (1933). **b - 10**

Denmark : plaice investigation, flounder and dab, cod and other cod Fishes, herring, mackerel and eel, larvae of spring spawning Fishes, bottom Invertebrates, plankton, water pollution, transplantation and marking experiments with cod. Hydrography. Germany : Investigations into the stock of young fish : plaice, flounder. Racial investigations on flatfish. Norway : Eel, sprat, cod and other cod Fishes, occurrence of fish fry, lobster, hydrography. Sweden : haddock, plaice, flounder, witch, sprat, herring, young fish, plankton, hydrography.

**Blegvad H.** - S/S « Biologen ». The New Research Vessel of the Danish Biological Station [*De nova quadam navi nomine* « Biologen » *ad inquisitiones idonea, ad Stationem Biologicam Daniam pertinente*]. 14 figs., Rep. Danish Biol. Stat., XXXVIII, 3-8. Copenhagen (1933). **b - 11**

Construction and equipment of the ship, also described in pictures. Its suitability and scope.

**Blegvad H.** - Transition Area Report, 1933 [*Relatio de area transitionis, a. 1933*]. 5 maps, Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIX, 51-63. Copenhague (1934). **b - 12**

Reports on the work carried on by the following countries: Denmark: Biology (Blegvad), plaice investigations, flounder and dab, cod and other cod Fishes, herring, mackerel and eel, larvae of spring spawning Fishes, bottom Invertebrates, plankton, water pollution, cod transplantations to the Limfjord, investigations concerning the disease of *Zostera marina*, causes of fluctuations in the yield of fisheries. Hydrography (Knudsen). Germany (Strodtman): plaice, flounder, dab, sprat, herring. Norway: Biology (Bjerkan & Dannevig). Sweden: Biology (Andersson & Molander), hydrography (Pettersson Hans).

**Borcea I.** - La Station Zoologique Marine « Regele Ferdinand I » d'Agigéa [*Statio zoologica marina nomine* Regele Ferdinand I *in* Agigéa]. 6 fig., Ann. Scient. Univ. Jassy, XIX, 1/4, I-XVI. Jassy (1934). **b - 13**

Intérêt biologique qui offre la Mer Noire en particulier au point de vue du problème de l'adaptation des espèces. La fondation du Laboratoire de Recherches Marines, pour lequel a été choisi un endroit très convenable. L'approbation et la visite de Sa Majesté le Roi Carol II. Programme des recherches concernant la biologie et la pêche.

**Borodin N.** - Report on Fishes [*Relatio de piscibus*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College 1933-1934, 45-46. Cambridge, U. S. A. (1934). **b - 14**

Catalogue work. Research work on the anabiosis of Fishes (see Zool. Jahrb. Bd. 53, Abt. allg. Zool. u. Physiol., 313-342, 1934). New accessions. Loans. Visitors.

**Bowman Alexander** - Northern North Sea, 1932 [*Area septentrionalis Maris Nordici, a. 1932*] Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, 2ème partie, 23-31. Copenhague (1933). **b - 15**

Résumés of the work carried out in the northern North Sea area by the following countries: Denmark (Å. Vedel Tåning), England (F. M. Davis), France (Jean Le Gall), Germany (E. Ehrenbaum), Norway (Oscar Sund), Sweden (A. R. Molander), Scotland. Herring-Haddock-Plaice. Hydrography and Plankton.

**Brinkmann Aug.** - Bergens Museums biologiske stasjon [*De statione biologica ad* Bergens Museum *pertinente*]. Bergens Mus. Årsber. 1933-1934, 60-62. Bergen (1934). **b - 16**

Acquisition of a new motor for the research boat. Researchers and their works at the station; Visitors; Publications.

**Brunelli Gustavo** - La talassografia e la pesca [*Thalassographia et piscatus*] (III Corso magistrale marittimo peschereccio). 20 pp., Tip. A. Manuzio. Ist. Poligr. dello Stato. Roma (1933). **b - 17**

Obbiettivi della talassografia. Studio fisico e biologico del mare. Diffusione della vita nel mare ed equilibri biologici in rapporto all'industria della pesca. (Vedi anche: Boll. Pesca, Piscicolt. e Idrobiol., IX, 4, 587-604, Roma 1933).

**Buchanan-Wollaston H. J.** - Letter to the Editor [*Epistula ad editorem*]. Journ. Cons. Expl. Mer, IX, 3, 394-396. Copenhague (1934). **b - 18**

Reply to Dr. Ottestad's criticism of the A.'s paper (published in this Journal, Vol. IX, N. 2) on modern statistical methods.

**Buddenbrock (von) W.** - Bericht über die Arbeiten, die in den Jahren 1930-1933 im Auftrage der Deutschen wissenschaftlichen Kommission für Meeresforschung in Kiel und Schilksee ausgeführt wurden [*Relatio de operibus peractis a. 1930-1933 iussu Commissionis Scientificæ Germanicæ pro Oceanographia, in* Kiel *et* Schilksee]. 4 diagr., Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VII, 3, 237-242. Leipzig (1934). **b - 19**

Eierzuchts- und Fütterungsversuche mit Schollen und Flundern. Weiterzucht der Junglarven. Schlussversuch mit Flundereiern. Studium der Physiologie des Blutes und der Atmung der Plattfische. Schollenüberpflanzung.

**Cerruti A.** - L'Istituto demaniale di Biologia marina di Taranto [*Institutum demaniale Tarentinum pro Biologia Marina*]. 6 fig., Riv. Biol., XV, 3/4, 386-390. Perugia (1933).

(—) 40 pp., 36 fig., 4 tav., Cressati. Taranto (1932).

(—) Recensione in: Int. Rev. Ges. Hydrobiol. u. Hydrogr., XXIX, 3/4, 293-294 (1933). **b - 20**

Distribuzione dei vari laboratori per ricerche di chimica-fisica riguardanti la biologia marina, per la chimica, per le indagini micrografiche, per la oceanografia. Altri locali per uso vario: acquari, laboratorio batteriologico, stanza per le bilancie di precisione, salone per le conferenze con proiezione, laboratorio parassitologico, ecc. Attrezzatura varia. Ricerche compiute e in corso.

**Clark Robert S.** - Northern North Sea, 1933 [*De area meridionali Maris Nordici, a. 1933*]. Rapp. Proc.-Verb. Cons. Expl. Mer, LXXXIX, 2ème partie, 28-36. Copenhague (1934). **b - 21**

Reports of the work carried out by the following countries: Denmark, England, France, Germany, Holland, Norway, Sweden, Scotland: Work at sea. Haddock. Herring. Plaice. Mesh of net experiments. Lemon Soles. Crabs and Lobsters. Plankton. Hydrography.

**Correns C. W., Defant A., Geszner F., Stahlberg W., Schubert (v.) O., Wattenberg H. & Wüst G.** - Tiefseebuch: ein Querschnitt durch die neuere Tiefseeforschung [*Liber de maris profunditatibus. Conspectus circa recentiores inquisitiones in mare profundum*]. 16 Taf., vi + 144 S., Das Meer in Volkstüml. Darst., III, Hrsg. von Inst. für Meereskunde zu Berlin, unter Schriftleitung von Wüst Georg. Mittler und Sohn. Berlin (1934). **b - 22**

**Cowie J. J.** - Rapport sur les travaux de l'Office de Biologie Marine du Canada, Année 1931 [*Relatio de operibus ab* Office de Biologie Marine du Canada *peractis, a. 1931*]. II-ème Rapp. Ann. Minist. Pêch. Canada, 1931/32, Append. 2, 88-117. Ottawa (1933). **b - 23**

Exposé des travaux accomplis aux stations dépendant de l'Office de Biologie Marine, à voir: la Station Atlantique de Biologie à Saint-André, N. B., la Station Atlantique d'Expérimentations et d'Essais appliqués à la pêche, à Halifax, N. E., la Station Biologique du Pacifique à Nanaimo, C. B., et la Station Expérimentale de Pêche (Pacifique) à Prince-Rupert, C. B. Recherches de pêche, d'océanologie en général, de limnologie, pisciculture, maladies des Poissons, physiologie et anatomie des Poissons, manutention du poisson comestible, sur les Saumons, etc.

**Crossland Cyril** - The Red Sea Biological Station of the University of Egypt [*De Statione biologica Maris Rubri ad Universitatem aegyptianam pertinente*]. 1 fig., Nature, CXXXIV, 3393, 743-744. London (1934). **b - 24**

Advantages of the site selected to build this Station. Description of the buildings. Concrete tanks for breeding of several organisms. Equipment.

**Davis F. M.** - British Hake Research [*Inquisitiones britannicæ ad merlucium studendum*]. Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXVII, 54. Copenhague (1934). **b - 25**

Brief report on the two voyages of the « Georges Bligh » on hake research in July and August 1932. Continuation of marking experiments. Trial of a new technique of marking.

**De Buen Fernando** - Etudes biologiques dans la région du Guipúzcoa [*Studia biologica in regione nomine* Guipúzcoa *peracta*]. 3 fig., 1 table, Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXVII, 55-59. Copenhague (1934). **b - 26**

Dans la présente note l'A. donne l'aperçu d'une étude accomplie sur les Poissons habituels du plateau continental (dont il donne une liste) que l'on capture par les arts traînants, ainsi que des résultats de quelques observations réalisées sur terre pendant la croisière du « Xauen » ayant un caractère surtout statistique et se référant surtout au thon et à la biométrie de la sardine.

**Dieuzeide R.** - Le Professeur Louis Boutan (1859-1934) [*Prof.* Louis Boutan (*1859-1934*)]. 3 fig., Bull. Trav. Stat. Aquicult. et Pêche Castiglione, 1933, 1, 9-34. Alger (1934). **b - 27**

Sa vie, sa carrière, son activité scientifique. Liste de ses travaux concernant en particulier la biologie et la physiologie des Mollusques.

**Ege V.** - Johannes Schmidt, 1877-1933. C. R. Labor. Carlsberg, XX, 1. (1934). **b - 28**

**Ehrenbaum E.** - Southern North Sea, 1933 [*De area meridionali Maris Nordici, a. 1933*]. Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIX, 2ème partie, 37-50. Copenhague (1934). **b - 29**

A) Work at Sea. Denmark, England, France, Germany, Holland and Scotland ; B) Fish. : I. General ; II. Cod and Haddock : Denmark, England, Germany, Scotland ; III. Herring (England, France, Germany, Holland, Scotland) ; IV. Plaice. General, statistics and ichthyometrics, age determination, quantity of the year-classes, rate of growth, marking experiments, transplantation ; V. Other fish ; VI. Shellfish ; C) Benthos and Deposits ; D) Plankton ; E) Hydrography.

**Gaarder Torbjørn** - Biokjemisk laboratorium [*De laboratorio biochimico*]. Bergens Mus. Årsber. 1933-1934, 71-72. Bergen (1934). **b - 30**

Lectures held. Examinations. Assistants. Investigations and expeditions. Publications.

**Galtsoff Paul S.** - The Mystery of the Ocean [*De oceano eiusque mysteriis*]. Scient. Monthly, August, 172-175. New York (1934). **b - 31**

The beginning of the science of oceanography back to the year 1522. Captain J. Cook, who made the first deep-sea soundings. The ingenious instruments invented for catching various organisms of the sea. The principal aims of the oceanography at present : determination of laws that control life in the ocean, ecology, description of new forms. Modern analyses of the sea water for studying its chemical constituents. Comparison between the elements found in sea water and those accumulated in the bodies of marine organisms. Present knowledge that supports the idea that fresh-water and land animals developed from marine forms.

**Gilson G.** - Combined North Sea and Eastern Channel Committee, 1932 [*Comitatus pro Mari Nordico et Freto Britannico occidentali, a. 1932*]. Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, 2ème partie, 20-22. Copenhague (1933). **b - 32**

I. Current work in the neighbouring areas: France, England, Germany, Holland, Belgium. Herring, sprat, Shrimps, young Fishes in coastal stage, destruction of young-fish, food of Fishes, hydrographical work ; II. Simultaneous work in the area : Meeting of workers specially engaged in herring problems in the transitional zone between Channel and North Sea ; simultaneous cruises for hydrographical and biological investigations.

**Gilson G.** - Combined North Sea and Eastern Channel Committee, 1933 [*Comitatus pro Mari Nordico et Freto Britannico, a. 1933*]. 1 table, Rapp. Proc.-Verb. Cons. Expl. Mer, LXXXIX, 2ème partie, 26-27. Copenhague (1934). **b - 33**

Proposals for the international co-operation. Outline of Current Work carried out in 1933, in the boundary region by the following countries : Belgium, England, France, Germany, Holland.

**Gran H. H.** - Plankton Committee, 1933 [*Comitatus pro plancton, a. 1933*]. Rapp. Proc.-Verb. Cons. Expl. Mer, LXXXIX, 2ème partie, 68-71. Copenhague (1934). **b - 34**

Belgium (by G. Gilson). Denmark (by Ove Paulsen) : Food of the herring. Faunistic work. Quantitative plankton researches. England. Résumé of plankton investigations carried out from the Plymouth Laboratory during 1933 (by Dr. Harvey). France (par Louis Fage). Germany. Hydrobiologische Abteilung des Zoologischen Staatsinstitutes in Hamburg (von E. Hentschel). Biologische Anstalt auf Helgoland (von A. Wulff). Irish Free State (by G. P. Farran). Norway. Report (by P. Bjerkan). Report on Phytoplankton work in 1933 (by Gran). Scotland (by R. S. Clark).

**Gravier Ch.** - Notice nécrologique sur J.-L. Dantan, Correspondant du Muséum [*Necrologia J. L.* Dantan, *qui cum Museo epistulis coniunctus erat*]. Bull. Mus. Nat. Hist. Natur., 2e sér. VI, 5, 403-404. Paris (1934). **b - 35**

Sa carrière, ses études concernant divers groupes d'organismes marins.

**Gunther R. T.** - The Ray Society [*De Societate nomine* Ray]. Nature, CXXXIII, 3352, 127-128. London (1934). **b - 36**

History of the foundation ; members ; work and publications (concerning the various groups of organisms), editors and agents for sale.

**Hagmeier A.** - Die Arbeiten der Biologischen Anstalt auf Helgoland in den Haushaltsjahren 1930-1933 [*De operibus a* Biologische Anstalt *in* Helgoland *peractis a. 1930-1933*]. 2 Abb., Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VII, 3, 145-212. Leipzig (1934). **b - 37**

A) Einleitung ; B) Die Beziehungen zwischen Fischbestand, Fischerei und Fischereiertrag : I. Die Untersuchungen über die Scholle und die Schollenfischerei. ; II. Untersuchungen über die Seezunge ; III. Kabeljau und Schellfisch des Barentsmeeres. C) Oekologische Untersuchungen auf verschiedenen Gebieten der praktischen Meeresforschung : I. Plankton und Fischbrut ; II. Sonstige Untersuchungen und Beobachtungen an Fischen ; III. Züchtungen und Experimente ; IV. Untersuchungen über den belebten und unbelebten Lebensraum : D) Forschungsfahrten. Methoden, Geräte : I. Die Unternehmungen auf See ; II. Die Methode der biologischen Marktuntersuchungen : III. Technik und Arbeitsweise an Bord. E) Anhang : I. Beteiligung an den Ostsee-Untersuchungen : II. Mitarbeiter. Uebersicht über die Untersuchungsfahrten und das Material 1930 bis 1933 ; IV. Verzeichnis der Veröffentlichungen.

**Heinrici C., Wulff A., Künne Cl. & Hagmeier A.** - Dem Andenken an Wilhelm Mielck 1878-1933 [*Necrologia* Wilhelm Mielck *1878-1933*]. Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VII, 3, 117-144. Leipzig (1934). **b - 38**

Nachruf. Seine Tätigkeit als Meeresforscher und Forschungsreisender ist besonders mit dem Studium der Radiolarien, Plankton, Heringslarven sowie mit Fanggeräten und Verpflanzungen eng verknüpft. Folgt ein Verzeichnis seiner sämtlichen Veröffentlichungen.

**Hentschel E.** - Bericht über die Arbeiten der Hydrobiologischen Abteilung des Zoologischen Staatsinstitutes in Hamburg [*Relatio de operibus a sectione hydrobiologica Instituti biologici Hamburgensis peractis*]. 1 Karte, Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VII, 3, 233-236. Leipzig (1934). **b - 39**

Vorbereitende Untersuchungen und Veröffentlichungen. Planktonforschungen während der Sommer 1932 und 1933 in den südisländischen Gewässern hauptsächlich in Bezug auf ernährungsbiologische Bedeutung.

**Hoffmeister J. Edward** - University of Rochester Fiji Expedition [*Expeditio ad insulas* Fiji *ab Universitate Rochesteriana peracta*]. Science, LXXX, 2065, 98. New York (1934). **b - 40**

Expedition organized for geological research in the Lau Islands of eastern Fiji. As a result excellent collections of fossil *Foraminifera*, Corals, Echinoids, Mollusks and other organisms have been obtained.

**Hollister Gloria & Beebe William** - Sample of Unedited Telephone Notes from Dive thirty-two [*Communicationes thelephonicæ inter immersionem N. 32*]. 1 fig., Bull. New York Zool. Soc., XXXVII, 6, 188-189. New York (1934). **b - 41**

Mr. Beebe gives a telephonic communication nearly every minute about all that he sees during his dive from 2450 to 2600 feet from 11.00 to 11.34.28 A. M.

**Huntsman A. G.** - Biological Board of Canada, East Coast of Canada, 1933. Trans. Amer. Geoph. Union, 15th Ann. Meet., Nat. Res. Counc., Part I, 227. Washington, D. C. (1934). **b - 42**

Brief account of the work performed by the Biological Board of Canada during the summer of 1933, which consisted in repeating the oceanographic observations made in the Halifax area in 1932; work carried out in Passamaquoddy Bay and adjacent estuaries in order to follow the effect of a freshet discharge through an estuary. Observations made during the winter season.

**Iselin C. O.** - Institutions on the Atlantic Side of Canada and the United States. Introduction [*Instituta ad regionem atlanticam canadensem et Americæ Status Foederatos pertinentia. Introductio*]. Trans. Amer. Geoph. Union, 15th Ann. Meet., Nat. Res. Counc., Part I, 225-226. Washington, D. C. (1934). **b - 43**

Very brief account of the physical investigations in progress during 1933. List of major Institutions information has been received from, located on or near the Atlantic seaboard. List of a number of smaller Laboratories primarily engaged in biological and physiological researches.

**Issel Raffaele** - Progressi e mete della biologia marina [*De biologia marina eiusque progressibus et propositis*]. Scientia, LIII, III, 6, 394-404. Bologna (1933). **b - 44**

Metodi e indirizzi di ricerca considerati in rapporto al delinearsi delle vedute sintetiche e in collegamento ai risultati delle scienze affini. I tre modi di esistenza degli organismi nel mare in rapporto al fondo e alla maggiore o minore autonomia di movimento: bentos, plancton, necton. Migrazioni, addensamenti, cicli biologici in rapporto a cicli analoghi dimostrabili nell'andamento di taluni fenomeni idrografici e meteorologici, a loro volta legati a ricorrenze d'indole cosmica.

**Jespersen P. & Tåning Vedel Å.** - Foreword (Introduction to the Reports from the Carlsberg Foundation's Oceanographical Expedition round the World 1928-30) [*Præfatio.* (*Introductio in relationes expeditionum oceanographicarum per orbem a. 1928-30 a Fundatione* Carlsberg *peractarum*)]. 1 photo, 6 tabl., Carlsberg Foundation's Oceanogr. Exped. round the World 1928-30 and previous « Dana » - Exped., Dana-Rep., 1, 7-16. Copenhagen & London (1934). **b - 45**

List of Expeditions under the leadership of Prof. Schmidt with a special reference to the Eel investigations. The tables contain: List of ports called at, anchoring places etc. during the Expedition; summarized list of Stations 1928-30, number of horizontal hauls with stramin-nets and ringtrawl in different depths and various areas, number of hauls with Nansen closing-net, number of stations with hydrographical observations and number of echo-soundings.

**Joubin M. L.** - Johannes Schmidt, 1 photo., Ann. Inst. Océanogr., XIV, 1, 1-19. Paris (1934). **b - 46**

Nécrologue.

**Knudsen Martin** - In Memoriam Johannes Schmidt. 1 fig., Introd. Rep. Carlsberg Foundation's Oceanogr. Exped. round the World 1928-30, Dana - Rep., 1, 3-5. Copenhagen & London (1934). **b - 47**

A brief reference of Schmidt's work.

**Le Danois Ed.** - Plateau Continental Atlantique, 1932 (Atlantic Slope) [*Planities continentalis atlantica, a. 1932*]. 1 table, Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, 2ème partie, 19-20. Copenhague (1933). **b - 48**

Bref compte rendu des croisières effectuées par les soins des Gouvernements de France, d'Espagne, de Grande-Bretagne, d'Irlande et du Portugal.

**Le Danois Ed.** - Plateau Continental Atlantique (Atlantic Slope) [*Planities continentalis atlantica*]. Rapp. Proc.-Verb. Cons. Expl. Mer, LXXXIX, 2ème partie, 24-25. Copenhague (1934). **b - 49**

Rapport sur les croisières effectuées par les soins des Gouvernements d'Espagne, de France, de Grande-Bretagne, d'Irlande et du Portugal.

**Le Danois Ed.** - Rapport sur le fonctionnement de l'Office des Pêches maritimes pendant l'année 1933 [*Relatio de activitate peracta ab* Office des Pêches maritimes *a. 1933*]. Rev. Trav. Off. Pêch. Marit., VII, 1, 9-25. Paris (1934). **b - 50**

I. Fonctionnement général de l'office: Navire océanographique. Laboratoire de Biarritz. Recherches sur les pêches marocaines; II. Océanographie et biologie: Recherches hydrologiques. Recherches sur la hareng et le maquereau. Recherches sur la sardine. Recherches sur les Poissons de chalut; III. Recherches techniques: Etudes frigorifiques. Recherches techniques sur les conserves; IV. Recherches de biologie ostréicole et conchylicole: Commission consultative des Etablissements de pêche. Commission supérieure de salubrité. Contrôle sanitaire ostréicole; V. Conseils internationaux: Conseil international pour l'Exploration de la mer. Commission internationale pour l'Exploration scientifique de la mer Méditerranée.

**Lillie Frank R.** - Gilman A. Drew. 1868-1934. Science, LXXX, 2082, 470-471. New York (1934). **b - 51**

His work at the Marine Biological Laboratory over a period of twenty-five years from 1901 to 1926. His very important study of the breeding mechanisms and behavior of the squid *Loligo*.

**Lillie Frank R.** - Decennial Review of the Work of the Marine Biological Laboratory [*Relatio decennalis de operibus peractis a Laboratorio*

*pro Biologia marina*]. 2 figs., Scient. Monthly, October, 377-380. New York (1934). **b - 52**
Report presented at the meeting of the Committee of Review on July 21, 1934 concerning the work accomplished by the Laboratory during ten years. Members of the Committee; endowment funds.

**Manfredi P.** - Gli stabilimenti ittiogenici italiani [*De oficinis ichthyogenicis italicis*]. 6 fig., Pesca e Piscicolt., I, 6, 6-8. Milano (1933). **b - 53**
L'A. illustra brevemente le due stazioni ittiogeniche di Brescia e di Roma, trasformate dal 1921 in Stabilimenti Ittiogenici.

**McLean Fraser C.** - Report on Oceanography in British Columbia for the Year 1932 [*Relatio de oceanographia in Columbia Britannica a. 1932*]. Trans. Amer. Geoph. Union, 14th Ann. Meet., Nat. Res. Council, 222-224. Washington, D. C. (1933). **b - 54**
Work centered at the Biological Station at Nanaimo, which has been particularly concerned with oceanographic investigation of the Strait of Georgia. Progress in the work on the food value of marine species and other physico-chemical investigations. Biological problems: life-history studies, faunistic studies, other biological problems. Fisheries Experimental Station at Prince Rupert: vitamin assays, fish oils, freezing and cold storage, fish spoilage, nutritive value of canned salmon. Hydrographic survey. Meteorological Office.

**McMurrich J. Playfair** - Annual Report of the Biological Board of Canada [*Relatio annua de operibus a* Biological Board of Canada *peractis*] (In Engl. & French). Ann. Rep. Biol. Board Canada, 1933, 3-4 & 121-123. Ottawa (1934). **b - 55**
Membership of the Board; summary of the research carried on at the four Stations maintained by the Board.

**Meyer K.** - Report on Works of the Expedition for the Exploration of the Iodine-Bearing *Algæ* along the White Sea and Murman Coast, Organized by the State Oceanographical Institute in 1931 [*Relatio de operibus peractis, perdurante expeditione ab Instituto Oceanographico ad Statum pertinenti constituta, ad explorandum et inquirendum in algas quæ jodium continent præter litora maris Albi et regionis* Murmansk] (In Russ. & Engl.). Trans. Oceanogr. Inst., III, 3, 5-6. Moscow (1933). **b - 56**
Causes which induced the Union of the Chemical and Pharmaceutical Industry to organize the expedition. Résumé of the program of the work made.

**Mielck W.** - Southern North Sea, 1932 [*De area meridionali Maris Nordici, a. 1932*]. 3 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, 2ème partie, 31-49. Copenhague (1933). **b - 57**
Preliminary. Work at sea: Belgium, Denmark, England, Germany, Holland, Norway, Scotland. Fish: Statistics and ichthyometrics. Littoral fishing. Eggs and larvae. Food of Fishes. Marking experiments. Experiments on the catching power and sparing quality of fishing gear. Methods. Cod and haddock. Herring. Other fish: mackerel, sole, sprat, tunny, gurnards; VI. Shellfish: periwinkle, *Pecten maximus*, oyster, lobster. Benthos and deposits. Plankton. Hydrography.

**Parr A. E.** - Investigations in Coöperation with the Bingham Oceanographic Foundation of Yale University [*Inquisitiones, consociata opera peractæ, a Fundatione oceanographica* Bingham *nomine ad Universitatem urbis* Yale *pertinente*]. Woods Hole Oceanogr. Instit., Rep. 1933, App., 27-28. Woods Hole, Mass. (1934). **b - 58**
Brief account of the three coöperative series of investigations started during 1933: (1) an oceanographic survey of the Central American Seas; (2) a quantitative and biological study of the Sargasso weeds and their associated animal life, and (3) taxonomic and distributional studies of deep sea Fishes.

**Playfair J.** - Sommaire du Rapport sur les travaux de l'Office de Biologie du Canada en 1932 [*Summarium relationis de operibus ab* Office de Biologie du Canada *peractis, a. 1932*]. 3-ème Rapp. Annu. Pêch. Canada, 1932-33, App. 2, 86-88. Ottawa (1934). **b - 59**
Constitution du personnel de l'Office. Résumé des travaux exécutés aux quatre Stations exploitées par l'Office, à voir: la Station de biologie de St. André, de Nanaimo, de Halifax, N. E. et de Prince-Rupert, C. B.

**Ranzi Silvio** - L'opera scientifica di Paolo Enriques [*Paulus* Enriques *eiusque opera scientifica*]. Atti Pont. Accad. Sc. N. L., LXXXVI, sess. VII, 383-397. Roma (1933). **b - 60**
Paolo Enriques era nato a Livorno il 17 agosto 1878, è morto a Roma il 26 dicembre 1932. Si laureò in scienze naturali a Bologna nel 1901, fu professore di Zoologia e Anatomia comparata a Sassari dal 1917, prima incaricato, poi di ruolo, poi fu professore di Zoologia a Padova nel 1921. Aveva avuto il premio Pio XI dell'Accademia delle Scienze Nuovi Lincei nel 1931. Viene illustrata la sua opera scientifica e dato l'elenco delle sue pubblicazioni.

**Ranzi Silvio** - L'attività della Stazione Zoologica di Napoli nel 1932 [*Relatio de activitate Stationis Zoologicæ Neapolitanæ*]. Riv. Fis., Matem. e Sc. Natur., VIII, 1, 11-22. Napoli (1933). **b - 61**
La vasta opera scientifica realizzata dalla Stazione Zoologica di Napoli, in conformità alle sue tradizioni. Scienziati e giovani ricercatori che l'hanno frequentata nell'ultimo triennio (1930-32). Importanza biologica degli argomenti trattati, che comprendono ricerche di sistematica e biologia animale, zoologia generale, embriologia descrittiva e morfologica, embriologia sperimentale, fisiologia dell'embrione, rigenerazione, accrescimento e problemi connessi, fisiologia, psicologia sperimentale, zoologia applicata, botanica. Segue un elenco degli estratti della Monografia « Uova, larve e stadi giovanili di Teleostei », dei lavori apparsi nelle Pubblicazioni della Stazione Zoologica di Napoli e dei lavori, non pubblicati dalla Stazione, ma facenti parte delle ricerche da essa sussidiate ovvero pubblicate dal suo Personale.

**Ranzi Silvio** - La Stazione Zoologica di Napoli [*De Statione Zoologica Neapolitana*]. 2 foto., Scuola Superiore, I, 11, 620-623. Roma (1934). **b - 62**
L'A. illustra uno dei centri di studi biologici più importanti del mondo.

**Richard J.** - Liste générale des stations des Campagnes Scientifiques du Prince Albert de Monaco avec notes et observations [*Index generalis stationum, perdurantibus expeditionibus scientificis ab Alberto* Prince de Monaco *peractis. Notæ et observationes*]. 8 pl., Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXIX, 1-348. Monaco (1934). **b - 63**
Liste générale des Stations (1885-1915): numéro de Station, date, localité, profondeur en mètres, nature du fond, procédé de récolte, observations. La liste est suivie par des notes et des observations sur chaque station. Hors texte ont été publiées 3 cartes: VII) Itinéraires du yacht « Princesse Alice » dans la Méditerranée et dans l'Océan Atlantique Nord de 1900 à 1905 inclus; VIII) Itinéraires des yachts « Princesse Alice » et « Hirondelle » dans la Méditerranée, l'Océan Atlantique Nord et l'Océan Glacial Arctique de 1906 à 1912 et 1914; IX) Itinéraire du yacht « Hirondelle » dans la Méditerranée et l'Océan Atlantique Nord en 1913 et 1915.

**Richard J.** - Sur la dernière campagne scientifique du yacht « Princesse Alice » [*De ultima navigatione scientifica pamphilii* « Princesse Alice » *nomine*]. Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXIX, 376-380. Monaco (1934). **b - 64**

L'A. donne une idée générale des récoltes zoologiques faites pendant cette campagne (1895), au moyen des notes prises sur place et de l'examen qui a pu être fait de quelques sujets remarquables.

**Richard J.** - Campagne scientifique de la « Princesse Alice » en 1901 [*De navigatione scientifica phamphilii* « Princesse Alice » *nomine a. 1901*]. Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXIX, 381-401. Monaco (1934). **b - 65**

L'A. n'insiste dans ce travail que sur la partie zoologique des travaux en passant en revue les opérations les plus intéressantes faites au cours de la dernière campagne. Observations sur les espèces recueillies aux différentes stations au moyen de chalut, nasse, barre à fauberts, palancres, trémails, filet Giesbrecht modifié. Faune de la surface. Physiologie et bactériologie. Etudes diverses.

**Richard J.** - Campagne scientifique du yacht « Princesse Alice » en 1902 [*De navigatione scientifica pamphilii* « Princesse Alice » *nomine a. 1902*]. Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXIX, 401-415. Monaco (1934). **b - 66**

Description de trois nouveaux instruments employés pour la première fois pendant cette campagne : une nasse à trémails inventée par le Prince ; un sondeur à long tube et des nouvelles bouteilles à eau, disposées en série verticale. L'A. n'insiste que sur la partie zoologique des travaux poursuivis et s'occupe plus particulièrement des Poissons, des Stellérides, des Alcyonaires, ainsi que d'un certain nombre d'espèces d'autres groupes, y compris les Cétacés.

**Richard J.** - Campagne scientifique du yacht « Princesse Alice » en 1903. Observations sur la sardine, sur le plancton, sur le Cétacés, sur des filets nouveaux, etc., etc. [*De navigatione scientifica pamphilii* « Princesse Alice » *nomine a. 1903. Observationes de sardinia, plancton, Cetaceis, retibus novis, etc.*]. Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXIX, 416-432. Monaco (1934). **b - 67**

Observations sur les espèces recueillies aux différentes stations au moyen de : chalut à étriers, chalut à plateaux, nasse, palancre, trémails de fond, trémails de surface, filets à Sardines, filet fin vertical, filet bathypélagique de Giesbrecht, filet à large ouverture, filet fin étroit, petit filet Hansen, haveneau. Une partie spéciale est dédiée aux Cétacés.

**Richard J.** - Campagne scientifique du yacht « Princesse Alice » en 1904. Observations sur le faune bathypélagique, etc. [*De navigatione scientifica pamphilii* « Princesse Alice » *nomine a. 1904. Observationes de fauna bathypelagica, etc.*]. Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXIX, 432-449. Monaco (1934). **b - 68**

Observations sur les espèces recueillies aux différentes stations au moyen de : chalut à étriers, chalut à plateaux, nasses, palancre et lignes de fond, trémail de surface, ligne de traîne, filet à large ouverture, filet fin étroit, haveneau. Une partie spéciale est dédiée aux Cétacés.

**Richter Rud** - Unserm Freunde Dr. F. A. Bather († 20.3.34) [*Necrologia Dr. F. A.* Bather († *20/3/34*)]. 1 Photo., Natur u. Volk, LXIV, 6, 241-242. Frankfurt a. M. (1934). **b - 69**

Dr. F. A. Bather, korr. Ehrenmitglied der Senckenbergischen Gesellschaft, als der angesehenste Kenner der vorweltlichen Echinodermen anerkannt.

**Roule Louis** - Le Biologiste Océanographe Docteur Johs. Schmidt (1877-1933). Sa carrière et son oeuvre [*Doctor* Johs. Schmidt (*1877-1933*), *biologus oceanographus. Agitur de eius curriculo et operibus*]. 4 fig., Bull. Trav. Stat. Aquicult. et Pêche Castiglione 1932, 2, 103-121. Alger (1934). **b - 70**

Sa biographie. Sa carrière d'explorateur scientifique, ses croisières, son étude très remarquable sur la biologie de l'Anguille.

**Russell E. S.** - Johnstone and the Philosophy of Biology [*De philosophia scientiæ biologicæ apud* Johnstone]. James Johnstone Mem. Vol., 12-21. Liverpool (1934). **b - 71**

In the present article the author considers in some detail Johnstone's last book « The Essentials of Biology », which summarizes in compact form his matured reflections upon the nature and evolution of life.

**Seurat L. G.** - VII$^{e}$ Assemblée plénière de la Commission Internationale pour l'exploration scientifique de la Mer Méditerranée (Naples, 22-25 Octobre 1933) [*VII.$^{us}$ Consessus plenarius Commissionis internationalis Mari Mediterraneo ex scientia explorando.* (*Neapoli a 22 ad 25 octobris 1933*)]. 1 fig., Bull. Trav. Stat. Aquicult. et Pêche Castiglione 1932, 2, 211-231. Alger (1934). **b - 72**

Liste de membres qui ont participé à cette assemblée. Conférences scientifiques relatives à la biologie de l'esturgeon et la valeur alimentaire du poisson de mer. Questions à l'étude. Excursions.

**Siedlecki M.** - Salmon and Trout Committee 1933 [*Comitatus salmonis tructaeque studendae, a. 1933*]. Rapp. Proc.-Verb. Cons. Expl. Mer, LXXXIX, 2-ème partie, 72-76. Copenhague (1934). **b - 73**

The investigations carried out concern mainly the character of the different populations of the Salmon and Sea Trout and their migrations, their biology during the riverlife and the life in the sea, the value of the scale reading for the determination of biological qualities of different populations, and the natural and artificial propagation of these species. The countries concerned are : Denmark, England, Finland, Germany, Irish Free State, Latvia, Poland, Scotland, and Sweden.

**Steuer Ad.** - Das neue Marine Laboratory in Alexandrien (Aegypten) [*De novo quodam Laboratorio Marino in Alexandria*]. Int. Rev. ges. Hydrobiol. u. Hydrogr., XXX, 3/4, 383. Leipzig (1934). **b - 74**

Kurze Notiz über das im Frühjahr 1931 beim Fort Kayed Bey eröffnete staatliche Institut für Meeresforschung.

**Stott F. C.** - The Oxford University Expedition to Spitsbergen, 1933. Appendice IV : Marine Biology [*De expeditione ad* Spitsbergen *ab Universitate Oxoniana peracta a. 1933. Appendix IV$^{a}$: Biologia Marina*]. Geogr. Journ., LXXXIV, 2, 126-127. London (1934). **b - 75**

Summary of the results of hydrographic observations, consisting in 240 sea temperature and 117 salinity determinations, 94 phosphate determinations, and observations on the vertical circulation made in the region at the head of Klaas

Billen Bay which has a typical fjord formation. The results of about 50 tow-nettings are reported for the study of the plankton, as well as those of observations on benthos, seal, and fish: *Leptoclinus maculatus*, *Liparis liparis*, *Myxocephalus scorpius*, *Boreogadus saida*.

**Strodtmann S. & Kändler R.** - Die Arbeiten der Ostseeabteilung Hamburg in den Jahren 1930-1933 [*De operibus a sectione hamburgensi Maris Baltici peractis a. 1930-1933*]. Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VII, 3, 269-318. Leipzig (1934). **b - 76**

I. Allgemeine Uebersicht sowie Zielsetzung der Arbeiten; II. Forschungsfahrten während der Berichtsjahre; III. Einzelergebnisse der Untersuchungen in den Berichtsjahren: *a*) Untersuchungen über den Jungfischbestand im Oderbankgebiet; *b*) Untersuchungen auf den Laichgebieten; *c*) Rassenkundliche Untersuchungen; *d*) Bastardbildung zwischen Scholle und Flunder; *e*) Wachstumsstudien. Veröffentlichungen in den Jahren 1930-1933.

**Sund Oscar** - North-Eastern Area, 1932 [*De area nord-occid., a. 1932*]. Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, 2-ème partie, 12-14. Copenhague (1933). **b - 77**

Account of the biological and hydrographical work carried out by the following countries represented in the Committee: England, France, Denmark, Scotland, Norway. Marking of fish. Russian cod marking. Other investigations: cod, herring, sprat, haddock.

**Sund Oscar** - Reports of Area Committees. North-Eastern Area, 1933 [*Relationes Comitatuum Sectionum variarum et diversarum. Area nord-orient., a. 1933*]. Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIX, 2-ème partie, 15-17. Copenhague (1934). **b - 78**

Information on the work carried out by the following countries: Denmark (by Dr. Å. Vedel Tåning), England (by Dr. E. S. Russell), France (by Dr. Ed. Le Danois), Germany (by Dr. H. Lübbert), Norway (by Mr. O. Sund). Investigations at Bear Island, Spitzbergen and Barents Sea. Investigations on cod, herring, haddock, sprat, lobster, oysters, prawn (*Pandalus*). Scotland (by Dr. R. S. Clark). Publications in 1933: German, Norwegian.

**Tåning V. Å.** - North-Western Area, 1932 [*Area nord-occid., a. 1932*]. Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, 2-ème partie, 15-18. Copenhague (1933). **b - 79**

Account of the various works carried out by various countries belonging to the Committee (France, Germany, Norway, Denmark) with especial reference to hydrographical and plankton investigations.

**Tåning V. Å.** - Reports of Area Committees. North-Western Area 1933 [*Relationes Comitatuum sectionum variarum et diversarum. Area nord-occid., a. 1933*]. 1 table, Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIX, 2-ème partie, 18-24. Copenhague (1934). **b - 80**

Information on the work carried out by the following countries: Denmark: Investigations by the research vessel « Dana » at the Faroes, Iceland, Denmark Strait, Greenland. Whales. Racial investigations. Reformation of the method used in age-determination of cod from the otoliths. Plankton investigations. Hydrography. England. France, Germany: Biology, hydrography. Norway. Scotland: Cod and Haddock. Plankton. Hydrography.

**Vaughan T. Wayland** - Oceanographic Research at the Scripps Institution of Oceanography [*Inquisitiones oceanographicæ in* Scripps Institution of Oceanography *peractæ*]. 1 table, Trans. Amer. Geoph. Union, 15th Ann. Meet., Nat. Res. Counc., Part I, 222-225. Washington, D. C. (1934). **b - 81**

Improvements. Expeditions and oceanographic data. Physical oceanography and marine meteorology. Chemistry. Microbiology. Phytoplankton. *Foraminifera*. Physiology of marine Invertebrates. Fish biology. Marine bottom-deposits.

**Ward Henry B.** - The Berkeley Meeting of the American Association for the Advancement of Science [*Conventus in* Berkeley *Societatis Americanæ pro Scientiarum progressibus*]. Science, LXXX, 2064, 43-62. New York (1934). **b - 82**

Some hints of previous meetings of 1915 (San Francisco), 1925 (Portland, Oregon) and of the third meeting on the Pacific Coast, the eighty-eighth meeting of the association, 1931 (Pasadena, Calif.). The Berkeley meeting (1934) was the ninety-fourth meeting of the association. There were 15 sections and 37 societies presenting programs on this occasion. All the meetings on the west coast have been held in conjunction with the Pacific. The Pacific Division had been most active and agreed to join with the association in 1937 in Denver.

**Wetmore Alexander** - Part 2. Report on the Progress and Condition of the United States National Museum for the Fiscal Year ended June 30, 1933 [*IIa Pars. Relatio pro anno fiscali hexitum habente die 30 mensis Junii 1933 de progressibus et condicionibus præsentibus Musei Nationalis ad Americæ Provincias Foederatas pertinentis*]. Rep. U. S. Nat. Mus., 1933, 69-86. Washington, D. C. (1933). **b - 83**

Operations for the year; Appropriations; Collections; Explorations and field work; Educational work; Visitors; Publications; Library; Photographic laboratory; Buildings and equipment; Meetings and receptions; Changes in organization and staff.

**Wheeler J. F. G.** - Bermuda Biological Station [*De Statione Biologica in insulis Bermudis*]. Trans. Amer. Geoph. Union, 15th Ann. Meet., Nat. Res. Counc., Part I, 231-232. Washington, D. C. (1934). **b - 84**

Drift-bottle work. Temperature measurements. Tide-gauge. Biological work.

**Wiese W.** - La Seconde expédition antarctique de « Discovery II » (1931-1933) [*De altera expeditione antarctica navis* « Discovery II » (*1931-1933*)] (En russe). 1 carte, Bull. Arct. Inst., 11, 362-364. Leningrad (1933). **b - 85**

Quelques informations plus précises (v. « Bull. Arct. Inst., 3/4, 58-60, 1931, 7, 8 et 9/10, 1931) sur l'expédition de « Discovery II » que l'on peut considérer comme l'entreprise la plus grandiose parmi les expéditions pour l'exploration des mers polaires en ce qui concerne la superficie de la région explorée et l'importance des travaux scientifiques exécutés. Recherches biologiques et hydrologiques.

**Wulff A., Bückmann A. & Künne Cl.** - Bericht über die Teilnahme an einer Fischereischutzfahrt der « Weser » zu Untersuchungen über die Verbreitung der Heringslarven in der südlichen Nordsee und dem Kanaleingang. 7. November bis 15. Dezember 1933 [*Relatio de operibus navi* Weser *peractis perdurante expeditione scientifica ad inquirendum in distributionem larvarum aringorum per Mare Nordicum merid. et accessum Freti Britannici, a die 7 Novembris ad diem 15 Decembris 1933*]. 3 Abb., Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VII, 3, 328-342. Leipzig (1934). **b - 86**

1. Aufgaben; 2. Teilnehmer; 3. Verlauf der Fahrt; 4. Hydrographie und Oberflächenplankton; 5. Die Verbreitung des Grossplanktons; 6. Verbreitung und Häufigkeit der Heringslarven; 7. Sonstige Fischbrutfänge.

**Biologic Board of Canada** - Pacific Biological Station, Nanaimo, B. C., 1933. Ann. Rep. Biol. Board Canada, 1933, 59-70. Ottawa (1934). **b - 87**

List of the members of the staff and voluntary investigators at the Station during 1933. Brief account of investigations carried forward and concerned with fish culture, propagation of sockeye salmon, of pink salmon, of trout, with pathology and ocean fisheries, with shellfish, oceanography; report of the work in the field of analysis and food values of British Columbia fish, of physiological investigation; of the studies of the fauna of the Pacific coast. Educational activity of the Station. Fifth Pacific Science Congress. Publications based in whole or in part on work carried out at the Pacific Biological Station at Nanaimo, B. C.

**Carlsberg Foundation's Oceanographical Expedition round the World 1928-30 and previous « Dana » Expeditions** - List of Stations [*Index stationum*]. tabl., 7 pl., Introd. Rep. Carlsberg Foundation's Oceanogr. Exped. round the World 1928-30, Dana-Rep., 1, 17-78. Copenhagen & London (1934). **b - 88**

Station Nr., date, hour, position, depth, weather, wind, sea, temperature, gear, revolutions, duration and direction of hauls for the different seas crossed. Indications of depths from which the sea water samples have been taken. Additional collections of surface-plankton.

**Commission Internationale pour l' Exploration Scientifique de la Mer Méditerranée** - Rapport administratif [*Relatio ad administrationem pertinens*]. Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 5-58. Paris (1934). **b - 89**

Rapport du Secrétaire Général. Composition du Bureau, des Commissions Nationales et du Personnel du Secrétariat. Procès-verbaux des Séances de l'Assemblée Pleinière et du Bureau Central, tenues à Naples en 1933. Compte administratif du budget. Annexes: I. Lettre de S. E. l'Ambassadeur de la République Espagnole.

**Commission Internationale pour l' Exploration Scientifique de la Mer Méditerranée** - Liste officielle des Services, Institutions et Etablissements scientifiques recevant les Publications de la Commission Internationale de la Méditerranée [*Index publicus Munerum, Institutionum, Laboratoriorum scientificorum quæ publicationes redactas a* Comm. Int. Expl. Scient. Médit. *recipiunt*]. Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 329-334. Paris (1934). **b - 90**

**Conseil International pour l' Exploration de la Mer & Commission Internationale pour l' Exploration Scientifique de la Mer Méditerranée** - Conférence d'experts pour l'examen des méthodes scientifiques et techniques à appliquer à l'étude des Poissons de la famille des Thonidés [*Conferentia peritorum ad methodus scientificas et technicas pro studio Thunnidarum examinandas*]. Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIV, Rapp. Atlant. 1932, 92-103. Copenhague (1933). **b - 91**

Composition du Comité convoqué à Madrid et à Cadiz sur invitation du Gouvernement Espagnol du 16 au 22 Mai 1932. Compte rendu des travaux. Programme provisoire des travaux de la Conférence. Nomenclature des Thonidés. Méthodes de marquage. Caractères ichthyométriques. Croissance du thon. Statistiques. Méthodes de pêche. Germon. Systématique des Thonidés. Séance de clôture.

**Conseil Permanent International pour l' Exploration de la Mer** - Rapports et procès-verbaux des Réunions. Procès-Verbaux (Mai 1933) [*Relationes et Acta scripta Consessuum. Pars I.ª Acta scripta* (*Mense Majo 1933*)] (Edition franco-anglaise). Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, I-ère partie, 4-60. Copenhague (1933). **b - 92**

Procès-verbaux des réunions du Conseil: Vingt-sixième réunion, Paris, Mai 1933: Bureau, tableau des membres, etc. Ordre du jour de la réunion. Procès-verbal de la séance du 8 Mai à 11 h. a. m., id. à midi. id. de la séance du 13 Mai à 2 h. 30 p. m., id. à 3 h. p. m. Statuts et Règlement particulier concernant le Bureau du Conseil International. Budget du Conseil pour 1933-34. Liste des Comités. Recommandations du Comité Consultatif. Programmes et Rapports des Comités des Secteurs: Comité du Secteur Nord-Est, id. Nord-Ouest, id. du Plateau Continental Atlantique, id. de la Mer du Nord, id. du Secteur de Transition, id. de la Baltique. Programmes et Rapports des autres Comités: Comité Hydrographique, id. du Plankton, id. Statistique, id. du Saumon et de la Truite, id. de la Baleine, id. Editorial.

**Conseil Permanent International pour l' Exploration de la Mer** - Rapport administratif (1932-1933) [*Relatio ad administrationem pertinens*]. Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, 2-ème partie, 3-11. Copenhague (1933). **b - 93**

I. General: Composition of the International Council for the Exploration of the Sea. Composition of the Bureau. Committees. Audit of Accounts. Meetings; II. Work of the Office at Copenhagen: A. Publications; B. Hydrographical Department; C. Statistical Department. Appendix I. Report on Meeting of Shellfish Experts at Middelburg, 20th-22nd September, 1932. Appendix II. Meeting of Herring Experts at Lowestoft. 11th October 1932. Appendix III. Conférence d'Experts pour l'examen des méthodes scientifiques et techniques à appliquer à l'étude des Poissons de la famille des Thonidés.

**Conseil Permanent International pour l' Exploration de la Mer** - Report of Administration 1933-1934 [*Relatio ad administrationem pertinens*]. Rapp. Proc.-Verb. Cons. Expl. Mer, LXXXIX, 2-ème partie, 3-14. Copenhague (1934). **b - 94**

Composition of the Intern. Council for the Explor. of the Sea. Balance. Meetings. Work at the Office at Copenhagen: Publications, Hydrographical Dpt., Statistical Dpt. 3 Appendices concerning Regulations for administration, meetings of salmon, trout, and cod experts.

**Conseil Permanent International pour l'Exploration de la Mer** - Report of the Meeting of Salmon and Trout Experts in Poland, October 1933 [*Relatio de congressu quodam speciali peritorum salmonis et tructæ in Polonia habito, oct. 1933*]. Rapp. Pr.-Verb. Cons. Expl. Mer, XCI, 3-10. Copenhague (1934). **b - 95**

Experts appointed by the Salmon and Trout Committee. Proceedings. Reports. Recommendations.

**Marine Biological Laboratory** - Thirty- Sixth Report for the Year 1933, Forty-Sixth Year [*Relatio XXXVIª pro a. 1933, a fundatione a. XLVIus*]. Biol. Bull., LXVII, 1, 1-44. Lancaster, Pa. (1934). **b - 96**

Trustees and executive Committee. Library Committee. Act of Incorporation. By-laws of the Corporation. Report of the Treasurer. Report of the Librarian. Report of the Director. Statement. Addenda. The staff; Investigators and Students; Tabular view of Attendance; Subscribing and cooperating Institutions; Evening lectures; Shorter scientific papers; Members of the Corporation.

**Museum of Comparative Zoölogy** - Publications for the year 1933-1934 (1 August, 1933 - 31 July, 1934) [*Publicationes a. 1933-1934* (*1* *mensis Augusti 1933 - 31 mensis Julii 1934*)]. Ann. Rep. Mus. Comp. Zool. Harvard College 1933-1934, 55-62. Cambridge, Mass. (1934). **b - 97**

**National Academy of Sciences (U. S. A.)** - Presentation of Medals and Honoraria [*Numismata et honoraria assignata*]. Science, LXXIX, 2060, 555-556. New York (1934). **b - 98**
The presentation address made by Dr. H. B. Bigelow at the presentation of the Agassiz Medal for 1933 to Bjørn Helland-Hansen, of the Oceanographic Institute, Bergen, Norway.

« **Ricerca Scientifica** » - Attività del Consiglio delle Ricerche. Conferenza plenaria della Commissione Internazionale per l'Esplorazione scientifica del Mediterraneo [*De activitate Consilii Inquisitionum Scientificarum. Conferentia plenaria Commissionis Intern. Mari Mediterraneo scientiæ causa explorando*]. Ric. Scient., a. IV, II, 10, 404-405. Roma (1933). **b - 99**
Relazione sulla conferenza plenaria della Commissione internazionale per l'esplorazione scientifica del Mediterraneo riunitasi in Napoli il 22 ottobre, alla presenza dei delegati dei seguenti paesi: Italia, Francia, Spagna, Romania, Tunisi, Monaco, Cipro, Palestina. Particolarmente importanti le relazioni del prof. Quagliariello di Napoli e di José Cerezo Gimenez (Spagna) sul « Valore alimentare del pesce », ed altri rapporti di Kel Saby, Gr. Antipa, H. Heldt, L. Roule e G. Brunelli, sulla biologia dello storione ed il valore alimentare di certi Pesci.

**Scottish Marine Biological Association** - Annual Report 1932-33 [*Relatio annua 1932-33*]. N. Adshead & Son, 3-23. Glasgow (1934). **b - 100**
Office Bearers, 1933-34 of the Association. Council. Executive Committee. Report of the Executive to the Council for the year to 31st March, 1933, for transmission by the Council, after approval, to the Nineteenth Annual General Meeting. Director's Report dealing with the research accomplished on plankton (*Calanus finmarchicus* and other members of the zooplankton), on molluscan ecology (certain bivalve Molluscs both in the littoral zone and in moderate depths) *Tellina tenuis*, *Syndosmya alba*, *Cardium edule*, *Mactra subtruncata*, shore ecology (summary of the collections of *Schistomysis spiritus* Norman). Publications and workers at the Station. Educational work. Museum and Aquarium.

**Woods Hole Oceanographic Institution** - Report for the Year 1933 [*Relatio a. 1933*]. 3-38 pp. Woods Hole, Mass. (1934). **b - 101**
I, Trustees, as of December 31, 1933 ; II. Members of the Corporation as of December 31, 1933 ; III. Report of the Treasurer ; IV. Report of the Director ; V. Staff, as of December 31, 1933. Appendix : Reports of progress by investigators working at the Institution during 1933.

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**Eh.** - Prof. W. Mielck. 1 Photo., Fischmarkt, I, 11, 312-313. Cuxhaven (1933). **b - 102**
Nekrolog des Direktors der Preussischen Biologischen Anstalt auf Helgoland, welcher den 5. Oktober 1933 verstorben ist

**J. H. A.** - Prof. J. Cossar Ewart, Obituary [*Necrologia Prof. J. Cossar Ewart*]. Nature, CXXXIII, 3353, 165-166. London (1934). **b - 103**
Born in 1851, dead in 1933. His work embraces especially hybridisation and other problems of animal breeding, researches on Lampreys, *Raia*, *Laemargus* and Herrings.

**J. S. G.** - Prof. W. M. Davis. Obituary [*Prof. W. M. Davis. Necrologia*]. Nature, CXXXIII, 3374, 973-974. London (1934). **b - 104**
Dead on February 5th at the age of eighty-four years. His career embraces more than sixty years of active scientific work especially on shore-line topography, continental slopes, marine shelves and coral reefs.

« **N. N.** » - Aquarium neapolitanum (Führer durch das Aquarium der Zoologischen Station zu Neapel). 169 Abb., 130 S., R. Stabil. Tipogr. F. Giannini e Figli. Napoli (1933). **b - 105**

**R. W.** - Prof. Cesare Artom † 10/III/1934. Int. Rev. ges. Hydrobiol. u. Hydrogr., XXX, 5/6, 490. Leipzig (1934). **b - 106**
Professor der Zoologie an der Universität Pavia und Mitherausgeber der Internationellen Revue.

**V. E.** - Travaux biologiques de la Station Polaire du Cap Tchéljouskine en 1932/33 [*Opera biologica in regione promunturii* Tscheljuskin *peracta, a. 1932-1933*]. (En russe). Bull. Arct. Inst., 4, 180. Leningrad (1934). **b - 107**
Compte rendu des travaux et des recherches sur la faune de la région avec référence spéciale aux observations sur la famille des Gadidés, dont on a observé deux formes: *Boreogadus saida* et *Arctogadus*. Cette dernière semble être nouvelle.

**An.** - Atlantic Biological Station, St. Andrews, N. B., 1933. Ann. Rep. Biol. Board Canada, 1933, 5-12. Ottawa (1934). **b - 108**
The Staff of the Station during 1933. Investigators. Investigations : special fisheries, general sea fisheries and oceanology, fresh water fish cultural investigations, disease and mortality, fish physiology and anatomy, the handling of fish for food. Publications. Relations with other Organizations.

**An.** - « Poison Water » of the Black Sea [« *Aqua venefica* » *in Ponto Euxino*]. Science, LXXIX, 2042, 6. New York (1934). **b - 109**
According to Prof. R. A. Daly of Harvard University, this « poison water » is due to the decayed carcasses of pre-historical beasts that had died when the salt Mediterranean water entered the basin. Some examples of emersions and lowerings of the sea-level.

**An.** - The Woods Hole Marine Biological Laboratory [*De operibus peractis a Laboratorio pro Biologia marina in* Woods Hole]. Science, LXXX, 2075, 308-309. New York (1934). **b - 110**
First meeting of the Committee to be held once very ten years for the study of the work of the Marine Biological Laboratory in order to determine whether the Laboratory is performing valuable services in biological research.

# METHODICE.

## Subsidia technica - Microscopia - Microphotographia - Cultura - Collectio.

**Allen Glover M.** - Report on Mammals [*Relatio de Mammaliis*]. Ann. Rep. Mus. Comp. Zool. Harvard College 1933-34, 26-30. Cambridge, U. S. A. (1934). **b - 111**

Among the donations there is a practically complete skeleton of a false killer Whale (*Pseudorca crassidens*) stranded in 1927 at Dornoch Firth, Scotland.

**Allgén C. A.** - Zur Sammel-, Konservierungs- und Präparationstechnik freilebender mariner Nematoden [*Technica ad Nematodes marinos liberos colligendos, servandos et parandos*]. 1 Abb., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 25, 97-100. Trondheim (1934). **b - 112**

Unter Hinweisung auf die Methoden und Anweisungen von Micoletzky, Ditlevsen, Brakenhoff, Paramanov u. a teilt der Vf. eine einfache Methode mit, die immer gute Dienste geleistet hat.

**Barni Benedetto** - Nuovo apparecchio per la presa di campioni di acqua a diverse profondità [*De novo apparatu ad aquæ specimina ex diversis profunditatibus colligenda*]. 1 fig., Atti R. Accad. Fisiocr. Siena e St. Fac. Med. Sen., ser. XI, I, 3, 131-135. Siena (1933). **b - 113**

**Bassler R. S.** - Report on the Department of Geology [*Relatio de sectione geologica*]. 1 table, Rep. U. S. Nat. Mus., 1933, 108-117. Washington, D. C. (1933). **b - 114**

Accessions during the fiscal year ending June 30, 1933; accessions of the division of stratigraphic paleontology filling gaps in the brachiopod series, fine series of fossil Starfishes and Crustaceans, etc. Installation and preservation of collections. Investigation and research. Distribution and exchange of specimens. Number of specimens under Department.

**Belloni A.** - Apparecchi per la respirazione subacquea [*Apparatus pro respiratione subaquanea*] Atti Soc. Ital. Progr. Sc., XXII Riun. (Bari, 12-18 ott. 1933), III, 62-65. Roma (1934). **b - 115**

Dopo avere esposto i pericoli che presenta per l'uomo la respirazione subacquea, l'A. enumera gli apparecchi più moderni che consentono la respirazione sott'acqua, e suddivisi in: apparecchi per la respirazione a pressione normale, ed apparecchi per la respirazione ad alta pressione.

**Bonde (von) C.** - New Oceanographic Apparatus [*Apparatus oceanographici novi*]. 2 pl., Fish & Mar. Biol. Surv., Rep. N. 10, 144-148. Pretoria (1933). **b - 116**

Description of the two following apparatus designed by the author: 1. Closing apparatus for a quantitative plankton net. 2. Water bottle with deep-sea reversing thermometer.

**Brinkmann Aug.** - Den zoologiske avdeling [*Sectio zoologica*]. 2 fig., Bergens Mus. Årsber. 1933-1934, 24-32. Bergen (1934). **b - 117**

New acquisitions: *Galeorhinus galeus*, *Centrolophus pompilus*, *Morone labrax*, *Myctophum punctatum*, *Mugil chelo*, *Salmacis rarispina*, *Heterocentrotus mammillatus*, *Coelopleurus elegans* and *Lingula anatina*. Use of the collections for scientific researches. Gifts.

**Burch Arthur B. & Eakin Richard M.** - A Device for Water Circulation [*De systhemate pro aquæ circulatione*]. 1 fig., Science, LXXX, 2085, 563-564. New York (1934). **b - 118**

Detailed description of a simple air pump that can be easily constructed and will maintain a continuous circulation of clean aerated fresh or salt water through an aquarium.

**Campbell M. H.** - Experiments on the Culture of Diatoms, and Studies of the Young Stages of Copepods [*De Diatomearum cultura stadiisque juvenilibus Copepodorum*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 39-40. Woods Hole, Mass. (1933). **b - 119**

I. Culture of Diatoms: *Nitzschia closterium*. II. A comparison of the developmental stages of *Euchaeta norvegica* Boeck, with those of *Euchaeta japonica*. III. Vertical distribution of developmental stages of *Euchaeta norvegica*.

**Cărăuş Sergiu** - Note préliminaire sur le mode dont se comportent certains animaux marins à la lumière artificielle [*Nota prior de modu agendi aliquorum animalium marinorum lucis artificiosæ causa*]. Ann. Scient. Univ. Jassy, XIX, 1/4, 314-316. Jassy (1934). **b - 120**

Il résulte des observations de l'A. que l'action qu'exerce la lumière sur les animaux marins peut être utilisée avec succès non seulement pour des récoltes planktoniques, mais même pour des formes benthoniques.

**Clark Lyman Hubert** - Report on Marine Invertebrates [*Relatio de Invertebratis marinis*]. tabl., Ann. Rep. Mus. Comp. Zoöl. Harvard College 1933-1934, 12-14. Cambridge, U. S. A. (1934). **b - 121**

Revision of the collection (data on table); researches accomplished; accessions including a very valuable collection of Echinoderms with species not previously known from northwestern Australia.

**Deichmann E.** - Report on Coelenterates and Sponges [*Relatio de Coelenteratis et Spongiis*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College, 1933-1934, 50-52. Cambridge, U. S. A. (1934). **b - 122**

The sponge collection now catalogued offers a special interest because it includes a large number of the types from Oskar Schmidt's monograph « Die Spongien des Meerbusens von Mexico » of 1879, one of the fundamental and earliest works on this group. Report on the Curator's travels for the purpose of studying Alcyonarians. Accessions.

**Erdmann W.** - Die angewandte Meeresforschung an der Biologischen Anstalt. *b*) Züchtung von Meerestieren [*Studia oceanographica in Statione Biologica peracta.* b) *De cultura animalium marinorum*]. Der Biologe, III, 180-182. München (1934). **b - 123**

**Harvey H. W.** - Measurement of Phytoplankton Population [*Apparatus ad phytoplancton mensurandum idoneus*]. 9 figs., Journ. Mar. Biol. Assoc., XIX, 2, 761-773. Plymouth (1934). **b - 124**

A meter is described which measures the volume of water having passed through a silk net which may be either towed or lowered and raised vertically. A double release gear and throttling arrangement allows the net to be opened, and later closed at any desired depths.

The catch of phytoplankton, from a volume of water which has been measured by the meter, may be assessed from its content of yellow-green pigments, which readily dissolve in acetone. A rapid method of measuring the pigment content of the catch in terms of arbitrary units of plant pigment is described. The arbitrary unit is related to numbers of two species of Diatoms.

The irregular distribution of phytoplankton in the sea is considered in connexion with representative sampling with this measuring net.

**Hecht Franz** - Bemerkungen zu Trask's Methode der Bestimmung des organischen Gehaltes meerischer Sedimente [*Observationes in methodum a « Trask » perlatam ad continentiam organicam sedimentorum marinorum determinandam*]. Senckenbergiana, XVI, 1, 21-24. Frankfurt a. M. (1934). **b - 125**

Die von Trask gewonnenen Ergebnisse bestätigen die früher in Bezug auf das deutsche Wattenmeer gemachte Feststellung, dass die N-haltigen Substanzen am frühesten und schnellsten zersetzt werden.

**Hentschel Ernst** - Eine Methode zur Untersuchung von Copepodenbevölkerungen [*Methodus quædam pro inquisitionibus in Copepoda*]. 4 Abb., Rapp. Pr.-Verb. Cons. Expl. Mer, 3-ème partie, Appendices 1933-1934, LXXXIX, 93-97. Copenhague (1934). **b - 126**

Diese Methode gestattet, in einfacher Weise jeden Copepodenfang mit jedem anderen inbezug auf seine Zusammensetzung zu vergleichen, und zwar auf Grund rein quantitativer an allen Tieren leicht ausführbarer Feststellungen, ohne Bestimmung der Arten.

**Homès Marcel V.** - La conservation de *Codium bursa* en herbier ou en liquide [*De conservatione speciei « Codium bursa » in herbario et in liquoribus*]. 4 fig., Bull. Soc. R. Bot. Belgique, LXVI, 1, 34-36. (1933). **b - 127**

L'A. suggère deux méthodes pour conserver cette algue et pour en faire des sections.

**Honig C.** - Nitrates in Aquarium Water [*De Nitratis in aqua cuiusdam aquarii*]. 1 table, Journ. Mar. Biol. Assoc., XIX, 2, 723-725. Plymouth (1934). **b - 128**

In the water of an aquarium as much as 1 gram per litre expressed as sodium nitrate was found. By adding lactate or tartrate to the water the development of denitrifying bacteria brought about almost complete removal of the nitrates and nitrites in the water.

**Hopkins A. E.** - A Mechanism for the Continuous Circulation and Aeration of Water in Small Aquaria [*De apparatu mechanico ad excitandam aëris continuam circulationem et aërationem in parvis aquariis*]. 1 fig., Science, LXXX, 2078, 383-384. New York (1934). **b - 129**

Description of a mechanism that eliminates the difficulties common in the usual method employed.

**Jackson T. Robert** - Report on the Fossil Echinoderms [*Relatio de Echinodermatis fossilibus*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College 1933-34, 48-49. Cambridge, U. S. A. (1934). **b - 130**

Notes on accessions among which the most important one is an extensive collection of about 4000 fossil *Echini* from Jamaica. This collection is especially valuable to the Museum in view of the Memoir on Jamaican Fossil *Echini* by Benjamin Walworth Arnold and Hubert Lyman Clark published by the Museum as Vol. L, 1, 1927, and also a supplementary Memoir by the same authors which is now in press.

**Kokubo S.** - A Plankton Pump in which the Winding of the Tow Line of Suction Tubing is made automatically [*De siphone, organismis planctonicis studendis, in quo funis pro remulco tuborum captatorum automatice convolvitur*] (In Jap., Engl. Rés.). 1 fig., Bull. Jap. Soc. Scient. Fish., I, 6, 277-280. Tokyo (1933). **b - 131**

**Krogh August** - A Method for the Determination of Ammonia in Water and Air [*Methodus pro determinatione ammoniaci in aqua et aëre*]. 1 fig., Biol. Bull., LXVII, 1, 126-131. Lancaster, Pa. (1934). **b - 132**

A method and apparatus for the determination of ammonia in sea water are described. The ammonia is carried over by a simple vacuum distillation into hydrobromic acid in which it is determined by the naphthyl red titration of added hypobromite.

**Krogh August & Keys Ancel** - Methods for the Determination of Dissolved Organic Carbon and Nitrogen in Sea Water [*Methodus ad determinandam solutionem organicam carbonis et nitrogeni in aqua marina*]. 4 figs., Biol. Bull., LXVII, 1, 132-144. Lancaster, Pa. (1934). **b - 133**

For the determination of organic nitrogen, the principle of Will-Warrentrap, involving digestion at 500° C. with caustic soda in an atmosphere of hydrogen is used. This method gives an accuracy of about 5 per cent in 5- or 10- ml. samples.

A wet combustion method for the analytical determination of dissolved organic carbon in sea water is presented. Halides are removed with thallous sulphate, the evaporated sea water residue is oxidized by means of ceric-chromic sulphuric acid, and the evolved carbon dioxide eventually determined by acid titration of baryta solution through which the gases have passed. The accuracy approaches 0.1 mg. carbon per liter.

**Kuenne Cl.** - Weitere Untersuchungen zum Vergleich der Fangfähigkeit verschiedener Modelle von vertikal fangenden Plankton-Netzen [*Inquisitiones vetustiores ad variarum retium verticalium capacitates captandi comparandas, quarum auxilio organisma planctonica colliguntur*]. (Dtsch. Text, Engl. Rés.). 6 Abb., 15 Tab., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIII, 3-33. Copenhague (1933). **b - 134**

Ergebnisse der Prüfung in Bezug auf ihre praktische Verwendbarkeit und des Vergleiches bezüglich ihrer Fangfähigkeit mit dem Hensen' schen Eiernetz aus Gaze Nr. 3 der folgenden Netze: *a*) das grosse Vertikalnetz ohne Aufsatz, Stramin, $b_1$) das grosse Vertikalnetz mit Aufsatz, Griessgaze Nr. 22, $b_2$) dasselbe Netz mit Erbstüll, *c*) das Helgoländer Larvennetz, Seidengaze Nr. 0, *d*) das Eiernetz ohne Aufsatz, Seidengaze Nr. 3, *e*) das mittlere Apstein-Netz, Seidengaze Nr. 20.

**Leavitt Benjamin B.** - Investigations of Bathypelagic Zoöplankton and Experiments with Closing Nets [*Inquisitiones in zooplancton bathypelagicum et experimenta, retium occlusione præditarum auxilio*]. Woods Hole Oceanogr. Instit., Rep. 1933, App., 25. Woods Hole, Mass. (1934). **b - 135**

Results of the comparison of the relative efficiencies of various types of releasing devices and closing nets and elaboration of a new type of releasing device.

**Nesbit Robert A.** - A Convenient Method for Preparing Celluloid Impressions of Fish Scales [*Methodus simplex ad vestigia squamarum piscium in celuloide paranda*]. 2 figs., Journ. Cons. Expl. Mer, IX, 3, 373-376. Copenhague (1934). **b - 136**

Description of a method devised by the A. to prepare minor image impressions of the scales of Squeteague (*Cynoscion regalis*, Bloch and Schneider).

**Penn Amos B. K.** - Physiological Media for Fresh-Water and Marine *Protozoa* [*De physiologicis liquidis, ad culturas parandas Protozoorum maris ac aquae dulcis*]. Science, LXXX, 2075, 316-317. New York (1934). **b - 137**

Formulae of two media, one for fresh-water forms, the other for marine forms. These media are less toxic than natural fresh water or sea water and many other physiological media tested.

**Phifer Lyman D.** - Continuous Phytoplankton Collection [*De quodam apparatu ad phytoplancton colligendum sine ulla intermissione*]. 1 fig., Science, LXXIX, 2048, 298-299. New York (1934). **b - 138**

Description of an apparatus to make a representative qualitative and roughly quantitative collection of the surface phytoplankton.

**Portier P. & Richard J.** - Sur une méthode de prélèvement de l'eau de mer destinée aux études bactériologiques [*Methodus ad aquam marinam colligendam pro studiis bacteriologicis*]. 4 fig. on pl., Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXIX, 360-361. Monaco (1934). **b - 139**

Description de l'appareil employé au cours de plusieurs campagnes du yacht « Princesse Alice » avec des résultats satisfaisants.

**Richard J.** - Modification du filet bathypélagique de Giesbrecht [*Modificatio retis bathypelagicae ex* Giesbrecht]. 5 fig. on pl., Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXIX, 363-366. Monaco (1934). **b - 140**

Principe du filet Giesbrecht, description, mode opératoire, facilité et simplicité de son maniement.

**Richard J.** - Sur des instruments destinés à la récolte et à l'examen préliminaire du plankton microscopique et sur la présence du genre *Penilia* dans la Méditerranée [*Apparatus ad plancton microscopicum colligendum et summatim examinandum. De genere « Penilia » Maris Mediterranei*]. 3 fig. on pl., Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXIX, 366-372. Monaco (1934). **b - 141**

Construction et emploi d'un petit filet, facile à mettre à l'eau et à retirer, pour une personne seule, très peu dispendieux et donnant des résultats très satisfaisants. Il est le seul qui permet de recueillir facilement le plancton de surface quand la mer est agitée.

**Richard J.** - Sur deux filets destinés à la récolte du plancton [*Retia duo ad plancton colligendum*]. Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXIX, 372-374. Monaco (1934). **b - 142**

Description de ces deux filets, dont les essais faits jusqu'ici sont très encourageants.

**Stanbury F. A.** - Replacement of Potassium by Rubidium in *Nitzschia closterium* [*Rubidium ponitur in locum potassii in N. c.*]. 2 figs., 6 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 931-939. Plymouth (1934). **b - 143**

It may be concluded that when rubidium is supplied in small amounts this element equals in efficiency similar amounts of potassium. In larger amounts, e. g. 21 γ rubidium per c. c., rubidium would appear to be harmful. The Diatoms in rubidium-containing cultures seem to be limited to an increase of seven to eleven times their original number, so that even when the rubidium is not harmful the total replacement of potassium seems impossible.

**Steemann Nielsen E. & Brand (von) Th.** - Quantitative Zentrifugenmethoden zur Planktonbestimmung [*Methodus pro inquisitionibus quantitativis in plancton, centrifugationis auxilio*]. Rapp. Pr.-Verb. Cons. Expl. Mer, 3-ème partie, Appendices 1933-1934, LXXXIX, 99-100. Copenhague (1934). **b - 144**

Beschreibung von zwei Methoden, durch welche in Ausbeuten von 81-115 % der im umgekehrten Mikroskop gefundenen Werte erhalten worden ist.

**Stejneger Leonhard** - Report on the Department of Biology [*Relatio de sectione biologica*]. Rep. U. S. Nat. Mus. 1933, 94-107. Washington, D. C. (1933). **b - 145**

Accessions for the year of the Department with particular mention of the divisions which deal with marine fauna, especially of the deeper waters of the ocean. Installation and preservation of collections. Research by members of the staff. Distribution and exchange of specimens. Number of specimens under Department.

**Tee-Van John** - The Bathysphere of 1934 [*De bathysphæra a. 1934*]. 2 fig., Bull. New York Zool. Soc., XXXVII, 6, 171-173. New York (1934). **b - 146**

Description on hand of a diagram of the different accessories forming the bathysphere.

**Tilden Josephine E.** - Standardization of Method for Drawing *Algæ* for Publication [*De methodu standardisata ad Algas in libris delineandas*]. 19 figs., Bot. Gaz., XCV, 515-518. Chicago, Ill. (1934). **b - 147**

Table of magnifications and factors, sample drawings and indication of precautions to be taken for the making of drawings of *Algae* for publication, according to the scheme adopted in the phycological Laboratory of the University of Minnesota.

**Van Ooste Kohn, Deason H. J. & Jobes Frank W.** - A Microprojection Machine Designed for the Study of Fish Scales [*Machina microproiectione prædita ad squamas Piscium studendas*]. 2 figs., Journ. Cons. Expl. Mer, IX, 2, 241-248. Copenhague (1934). **b - 148**

Description of a new microprojection machine designed by the authors for the study of fish scales, tested and used since March, 1931, and found satisfactory by every member of the research staff of the Bureau of Fisheries (U. S. A.): optical equipment, object stage, supporting framework, projection screen, mirror, cabinet, wiring, focussing device, accessories, adaption for photography of the machine.

**Zobell C. E. & Allen E. C.** - Attachment of Marine *Bacteria* to Submerged Slides [*Quo modo bacteria marina ad laminas submersas adherescunt*]. Proc. Soc. Exp. Biol. & Med., XXX, 1409-1411. New York (1933). **b - 149**

Only some marine *Bacteria* attach themselves to submerged slides. All stages of bacterial development from individual cells, dividing cells, chains, and micro-colonies have been observed.

# CYTOLOGIA ET HISTOLOGIA.

**Alvarado Salustio** - Zooxantelas, ficocitos y colocitos en la Medusa *Cassiopea borbonica* [*De zooxantellis, phycocytis colocytisque in medusa Cassiopea borbonica*]. (En españ., res. franc.). 13 fig., Rev. Españ. Biol., III, 1/2, 31-50. Madrid (1934). **b - 150**

Las zooxantelas y los ficocitos. Sobre la localización de las zooxantelas en el cuerpo de las Escifomedusas. Los colocitos.

**Biecheler Berthe** - Mise en évidence d'un réseau mitochondrial chez quelques Péridiniens autotrophes [*De rete quodam mitochondriali in Peridineis autotrophis*]. 2 figs., C. R. Acad. Sc., CXCIX, 22, 1241-1243. Paris (1934). **b - 151**

L'A. se borne à conclure à l'existence, chez les espèces suivantes : *Coolia monotis*, *Glenodinium sociale*, *Exuviella marina*, *Cryptoperidinium foliaceum* et deux *Peridinium* sp. indet., d'un chondriome en réseau capable de se dissocier, chez certaines espèces et dans certaines conditions, en chondriocontes de forme ordinaire.

**Brown N. E.** - The Structure of Diatoms [*De structura Diatomearum*]. 1 pl., Journ. Quekett Microscop. Club, ser. 3, I, 2, 52-65. London (1934). **b - 152**

Opinions of different authors as to the structure of the shell of a diatom. Description of the structures of the following species: *Coscinodiscus oculus-iridis*, *Trinacria regina*, *Synedra Gallioni*, *Diatoma vulgare*, *Amphipleura pellucida*, *Navicula lyra*, *Craspedodiscus coscinodiscus*, *Arachnoidiscus Ehrenbergii*, *Diatoma grande*, *Pinnularia major*, *Triceratium favus*, *Closterium* sp., *Cocconeis scutellum* and *Cocconema cistula*.

**Chadefaud** - Signification morphologique des physodes des Phéophycées [*Significatio morphologica physodorum in Pheophyceis*]. C. R. Acad. Sc., CXCVIII, 24, 2114-2116. Paris (1934). **b - 153**

Constitution du physode. Différents types de physodes, leur distribution dans les différentes espèces.

Les observations de l'A. conduisent à rattacher les physodes au chondriome et à y voir des sortes de plastes, plutôt que des éléments du vacuome.

**Dawson B. Alden** - The Colored Corpuscles of the Blood of the Purple Sea Spider, *Anoplodactylus lentus* Wilson [*De corpusculis coloratis sanguinis speciei « Anoplodactylus lentus »* Wilson]. 16 figs. on pl., Biol. Bull., LXVI, 1, 62-68. Lancaster, Pa. (1934). **b - 154**

Vital observations on entire animals and amputated legs. Supravital observations. The nature of the intracellular pigment. Importance of studying the problem from a physiological point of view.

**Duboscq O. & Tuzet O.** - Sur le parabasal ou corps de Golgi des Eponges calcaires [*De apparatu parabasali seu corpore Golgiano in Calcispongiis*]. 7 fig., Arch. Zool. Exp. & Gén., Notes et Rev., LXXVI. 3, 78-89. Paris (1934). **b - 155**

Description de la forme de l'appareil parabasal dans les choanocytes des Eponges calcaires. La disposition dans la cellule par rapport au noyau. Sa constance. Sa division. Le corps de Golgi dans les amphiblastules et dans les larves. Le corps de Golgi dans les diverses cellules des Eponges.

**Gross Fabius** - Intranuclear Spindle Formation and Mitosis in *Artemia salina* [*De formatione fusi intranuclearis deque mitosi in Artemia salina*]. 1 fig., Nature, CXXXIII, 3374, 985-986. London (1934). **b - 156**

Cytological study to consider to what extent the structure of the spindle and the morphology of the meiotic and mitotic division bear upon the general understanding of the problem of mitotic division.

**Haughton Isabel** - Amoebocytes and Allied Cells in *Invertebrata* [*De amoebocytis cellulisque affinibus in Invertebratis*]. Journ. Microscop. Soc., ser. III, LIV, 4, 246-262. London (1934). **b - 157**

Morphology : types, form. Physical properties : amaeboid movement, thigmotaxis, phagocytosis, diapedesis. Physiology : digestion, excretion. Pathological conditions: leucocytosis, coagulation and agglutination, chitinoid secretion. Origin. Distribution.

**Hovasse Raymond** - Sur l'existence d'un appareil parabasal dans les cellules flagellées des larves nageantes, chez l'Oursin, *Paracentrotus lividus* [*De exsistentia apparatus cuiusdam parabasalis in cellulis flagellatis larvarum natantium speciei « Paracentrotus lividus »*]. 1 fig., C. R. Acad. Sc., CXCIX, 26, 1664-1667. Paris (1934). **b - 158**

Forme, structure, réactions de coloration, identifient cet organite d'échinoderme au parabasal des choanocytes d'Eponges, aussi bien que celui de maint flagellé.

**Jepps Margaret W.** - Protistologica XLVI. Le noyau de *Gromia oviformis* Dujardin étudié par la méthode de Feulgen [*Protistologica XLVI. Nucleus « Gromiæ oviformis » methodus Feulgenii auxilio perspectus*]. 7 fig., Arch. Zool. Exp. & Gén., Notes et Rev., LXXVI, 3, 73-77. Paris (1934). **b - 159**

Etude du nucléus de cette espèce dans le but de découvrir quelques détails du processus de fission nucléaire. Malheureusement la méthode de Feulgen n'a pas rélevé grand'chose de nouveau.

**Okada Yô K., Takagi Syunzô & Sugino Hisao** - Microchemical Studies on the So-called Photogenic Granules of *Watasenia scintillans* (Berry) [*Studia microchimica de granulis photogenis, ut ii granuli dicuntur, in Watasenia scintillanti*]. 2 tabl., Proc. Imp. Acad., X, 7, 431-434. Tokyo (1934). **b - 160**

Preceding works as to the nature of peculiar granules in the photogenic tissue of this Cephalopod.

The results of experiments made on the granules contained in the brachial organs tend to prove that the granules in question are not bacteria, but crystalloids of protein nature.

**Rousseau Charles** - Sur la structure de l'épithélium hépatique des Eolidiens [*De structura epithelii hepatici in Aeolididis*]. C. R. Acad. Sc., CXCVIII, 7, 677-679. Paris (1934). **b - 161**

De cette étude, il résulte que chez *Spurilla glauca*, et *S. croisicensis*, le tissu hépatique est formé de trois types de cellules : 1) cellules vacuolaires excrétrices formées de vacuoles renfermant chacune une granulation lipoïdique ; 2) cellules excrétrices ou xanthinophores renfermant des concrétions de xanthine ; 3) cellules à ferments sécrétant des diastases et ayant aussi une fonction absorbante et phagocytaire.

**Stefanelli Alberto** - Le cellule e le fibre di Müller dei Petromizonti [*De cellulis fibrisques in Petromyzontibus*]. 11 fig., Arch. Ital. Anat. e Embriol., XXXI, 4, 519-548. Firenze (1933). **b - 162**

Suddivisione dei centri tegmentali dei Petromizonti. Cellule e fibre di Müller. Sulla presunta decussazione delle fibre di Müller e sulla decussazione dei tratti ottavomotori. Discussione e conclusioni.

**Stolz Picchio Teresa** - Ricerche sul timo di *Lophius budegassa* Spin. e sulle sue modificazioni nell'adulto [*Inquisitiones in thymum speciei « Lophius budegassa »* Spin. *et in eius modificationes quoad speciem adultam*]. 2 tav., Arch. Ital. Anat. e Embriol., XXXI, 4, 549-568. Firenze (1933). **b - 163**

Il timo del *Lophius budegassa* Spin. presenta una struttura molto varia in esemplari di diversa lunghezza (da cm. 15 a cm. 35) e quindi di diversa età. Nei più giovani si distingue una sostanza di tipo midollare disposta alla periferia e una sostanza di tipo corticale, che occupa la parte centrale dell'organo: col crescere dell'età questi due tessuti vanno progressivamente mescolandosi tra loro e dapprima formano isole che mantengono la individualità strutturale del tessuto da cui derivano, indi si fondono anche più intimamente in modo da non lasciar più riconoscere l'esistenza di due tessuti distinti. Negli individui più vecchi si verifica la comparsa di tipici ammassi cellulari compatti, caratterizzati anche dalla presenza di numerosi granuli di pigmento, e la rarefazione generale del restante parenchima, con la formazione di cavità che possono raggiungere dimensioni cospicue. L'organo è completamente isolato dalla parete della cavità branchiale ravvolto da una capsula connettivale che si ispessisce notevolmente col crescere dell'età.

**Vialli Maffo** - Formazioni linfoidi meningee e perimeningee nei Selaci [*Formationes lymphoides meningeae et perimeningeae in Selachioideis*]. Boll. Zool., IV, 4, 123-134. Napoli (1933). **b - 164**

Le ricerche dimostrano che anche in qualche specie di Selaci e particolarmente in *Pristiurus melanostomus* esistono in seno ai tessuti meningeo e perimeningeo formazioni che si possono comparare all'organo linfomieloide dei Ganoidi. La caratteristica di queste formazioni è di essere esclusivamente di tipo linfoide, con elementi a distribuzione molto varia.

**Vialli Maffo** - Rapporti fra connettivo reticolare e reticulum nei plessi coroidei [*Correlationes inter connectivum reticulare et reticulum in plexibus coroideis*]. Monit. Zool. Ital. (Atti Soc. Ital. Anat., IV Conv. Pavia 16-19 ott. 1932), a. XLIII, suppl. 1933, 160-161. Firenze (1933). **b - 165**

Osservazioni sulla continuità tra le fibrille del tessuto reticolare laminare e quelle del *reticulum* linfoide a livello dei plessi coroidei, fatte in *Emys orbicularis*, nei Ganoidi, e in una specie di Selacei, *Pristiurus melanostomus*.

**Vialli Maffo** - Zone e forme differenziate dell'epitelio coroideo dei Pesci [*Zonæ ac formæ differentiatae in hepitelio coroideo piscium*]. Monit. Zool. Ital. (Atti Soc. Ital. Anat. IV, Conv. Pavia, 16-19. ott. 1932). XLIII, suppl. 1933, 263-264. Firenze (1933). **b - 166**

Esempi particolarmente interessanti anche dal punto di vista funzionale, raccolti non solo per i Pesci, ma anche per le altre classi di Vertebrati.

# ANATOMIA ET PHYSIOLOGIA.

## *Varia.*

**Atkins W. R. G. & Poole H. H.** - The Photoelectric Measurement of the Penetration of Light of Various Wave-lengths into the Sea and the Physiological Bearing of the Results [*De mensuris photo-electricis penetrationis lucis, varia undæ longitudine præditæ, in mare. Consideratur etiam momentum physiologicum resultatuum*]. 5 fig., Phil. Trans. R. Soc., B. CCXXII, 487, 129-164. London (1933). **b - 167**

Account of the measurements. Values found in the English Channel for the different spectra and their following reductions of the sub-surface illumination for each spectral region. The absorption of light from yellow to violet and its influence on the water temperature. The absence of red light from the deeper water and its influence on the color vision of fish dwelling under such conditions. Reduction of the anti-rachitic portion of the spectrum and its bearing on the origin of vitamin D in fish liver oils.

**Bertolini Fausta** - Rigenerazione dell'apparato digerente nelle *Holothuria* [*De regeneratione apparatus digestionis in Holothuriis*]. 2 fig., 1 tav., Pubbl. Staz. Zool. Napoli, XII, 3, 432-442. Napoli (1933). **b - 168**

Rigenerazione dell'apparato digerente nelle specie del genere *Holothuria* eviscerate. Origine delle reti mirabili. Osservazioni durante il processo di rigenerazione. Differenza di comportamento tra *Stichopus* e *Holothuria*. L'aspecificità dei foglietti nella rigenrazione degli Echinodermi è in rapporto col fatto che le larve degli Echinodermi hanno capacità di rigenerare organi indifferentemente da diversi foglietti (rigenerazione di sacchi celomatici a spese di ectoderma o entoderma), mentre fenomeni simili non si osservano in tutti gli embrioni di altri Metazoi a questo scopo studiati.

**Binet Léon** - Biologia marina e medicina [*Biologia marina et Ars medica*]. 2 fig., Biol. Med., X, 1/2, 39-50. Milano (1934). **b - 169**

Contributi che lo studio sperimentale della fisiologia e fisio-patologia degli animali marini può portare alla medicina sperimentale, dimostrati attraverso l'esposizione di una serie di studi della fagocitosi, dell'inflammazione, dell'immunità, delle ittiotossine nel dominio della biologia marina, della scoperta dell'anafilassi in seguito alle ricerche sulle tossine degli animali marini, ecc. ecc.

**Borodin N. A.** - Investigation of the Phenomena of Resuscitation of Fishes, after Freezing [*Inquisitiones in phænomena reditus in vitam piscium post congelationem*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 31. Woods Hole, Mass. (1933). **b - 170**

Account of studies made of the problem of the « Anabiosis » of several species of fish.

**Borodin N. A.** - Investigation of the Phenomenon of the « Anabiosis » or Resuscitation of Fishes, after Freezing [*Inquisitiones in phænomenum quod anabiosis dicitur seu reditus in vitam piscium post congelationem*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 38-39. Woods Hole, Mass. (1933). **b - 171**

Brief account of the continuation of the investigation started in 1931, consisting in 151 experiments on freezing Fishes

and efforts to revive them. Besides observations were made on the temperature of the body of 7 species of fish during the process of freezing. Classification of Fishes frozen to different degrees, on hand of histological examination. Summary of the results of supplementary experiments made in the laboratory of the Museum of Comparative Zoology with Alaska blackfish (*Dallia pectoralis* Bean).

**Brown F. A. Jr.** - The Chemical Nature of the Pigments and the Transformations Responsible for Color Changes in *Palaemonetes* [*Natura chimica pigmentorum mutationesque quæ coloris variationes in specie « Palaemonetes » permittunt*]. 6 figs., 1 pl., Biol. Bull., LXVII, 3, 365-380. Lancaster, Pa. (1934). **b - 172**

The red pigment of *P. vulgaris* appears to be astacin while the yellow one seems to be identical with plant carotin.

A method is set forth to measure the rate of formation and destruction of pigment within the Shrimps. Quantitative study of the chemical transformations in the pigments. Pigment destruction upon a white background. Effect of darkness upon pigment quantity. Pigment formation upon a black background.

**Buchanan-Wollaston H. J.** - The Theory of Variation, Correlation and Regression. Its Relevance in Researches on Proportional Growth [*De theoria variationis, correlationis et regressionis. Quæstio de eius momento deque utilitate pro inquisitionibus in accretionem proportionalem*]. 3 figs., Rapp. Pr.-Verb. Cons. Expl. Mer, 3-ème partie, Appendices 1933-1934, LXXXIX, 33-44. Copenhague (1934). **b - 173**

Referring to a recent work of Einar Lea on the prevalent misuse of statistical theory in dealing with calculation of previous length of a fish the A. here tries to illustrate and elucidate the above mentioned new statistical theory by means of examples, formulas and graphs to calculate the previous length of a fish from the previous length of one or more of its scales or otoliths. 2 addenda with explanatory remarks.

**Chabanaud Paul** - Contribution à la morphologie des Poissons hétérosomes [*Heterosomata. Contributio in morphologiam cognoscendam*]. Bull. Soc. Zool. France, LIX, 123-129. Paris (1934). **b - 174**

Sur la présence d'un rayon pelvien, surnuméraire, chez un soléidé. *Atherestes stomias* Jord. et Gilb. *Psettodes belcheri* Bennett. La morphologie générale des *Heterosomata* considérée du point de vue phylogénique.

**Colla Silvia** - Ricerche sui gas nei vegetali [*Inquisitiones in gas vegetalium*]. Atti Soc. Ital. Progr. Sc. (XXI riun., Roma 9-15 ott. 1932), V, 98-108. Roma (1933). **b - 175**

Metodo usato per la ricerca dei gas contenuti negli organi cavi delle Alghe. Questi gas risultano costituiti da una miscela di $O_2$, $CO_2$ e $N_2$. Natura della secrezione gassosa nelle diverse specie esaminate.

**Coonfield B. R.** - Coördination and Movement of the Swimming Plates of *Mnemiopsis Leidyi*, Agassiz [*Palæ natatoriæ in specie « Mnemiopsis Leidyi » Agassiz. Quæstio de coordinatione et motu*]. 6 fig., Biol. Bull., LXVI, 1, 10-21. Lancaster, Pa. (1934). **b - 176**

On hand of experiments reported here the A. considers the following questions: Is the aboral sense organ the center of coördination? Does the coördination in each plate row depend entirely upon the stimuli arising in the aboral center? Will this sensory center exhibit its dominance during all rates of plate movements? Is this stimulating element in each plate row strong enough to resist any reversed impulses? Does each plate row exhibit an aboral dominance as reported by Child (1917)? Is the transmitting element nervous or is it less differentiated than nervous tissue?

**Coonfield B. R.** - The Movement and Regulation of Cilia on the Parapodia of *Nephthys bucera* Ehlers [*Motus et regula ciliarum in parapodiis speciei « Nephthys bucera » Ehlers*]. 9 figs., Biol. Bull., LXVII, 3, 399-408. Lancaster, Pa. (1934). **b - 177**

Though this problem has been studied intensively from both the morphological and physiological point of view a full explanation on the exact mechanism responsible for ciliary movement and of the principle involved in ciliary coördination has not yet been found. After having described the structure of these ciliated regions as shown by stains the A. discusses the possibility of a nervous control of the cilia which is however confuted. Presumption of a neuroid mechanism for the ciliary coördination of these cells when they are in their natural location.

**Damant G. C. C.** - Physiology of Deep Diving in the Whale [*De physiologia profundæ immersionis balænarum*]. Nature, CXXXIII, 3371, 874. London (1934). **b - 178**

Critical note to the part of the article of Prof. Krogh appeared in Nature 3365 p. 635 (1934) that concerns the liability of Whales to caisson disease. Complementary note of Prof. Krogh.

**Ditlevsen Hjalmar** - Some Remarks on the Spicular Apparatus of *Enoplolaimus diplechma* (Southern) [*Enoplolaimus diplechma* (Southern). *Observationes quædam circa apparatum spicularum*]. 2 figs., Vidensk. Medd. Dansk. naturhist. Foren. i København, XCVII, 207-210. København (1933-34). **b - 179**

In his examination of the spicular apparatus of *E. diplechma* the A. has come to the conclusion that the « second accessory piece », as quoted by Southern, is another spicule, the shape of which is that characteristic of the sub-genus *Mesacanthion* and that the presence of these two spicules of very different shape is unique in the said sub-genus. The function of these two spicules.

**Dykgraaf S.** - Untersuchungen über die Funktion der Seitenorgane an Fischen [*Inquisitiones in functionem organi lateralis Piscium*]. Ztschr. vgl. Physiol., XX, 162-214. Berlin (1933). **b - 180**

**Facciolà Luigi** - L' *Ophidion barbatum* Linn. e la sua vescica natatoria [*Ophidion barbatum eiusque vesica natatoria*]. 1 fig., Atti Soc. Ital. Sc. Natur. e Mus. Civ. Stor. Natur. Milano, LXXII, 2, 157-164. Milano (1933). **b - 181**

Caratteri comuni alle specie del genere *Ophidion*; specie che vivono nei mari italiani. Particolarità anatomiche e funzionali della vescica natatoria.

**Fontaine M.** - Sur une relation entre la teneur en gaz carbonique libre et combiné du milieu intérieur et le niveau moyen de l'habitat chez quelques Décapodes Brachyrhynques [*De correlatione inter tenorem $CO_2$ ambientis interni et libellum medium quoad abitat in quibusdam Decapodis Brachyrhynchis*]. Bull. Inst. Océanogr., 639, 1-4. Monaco (1933). **b - 182**

L'A. a fait une comparaison entre Crabes (1) du même groupe, (2) de taille voisine à l'état adulte et (3) d'une activité comparable et plus précisément entre *Portunus puber*, *Carcinus moenas* et *Grapsus marmoratus*. Il a pu constater que chez les Décapodes Brachyrhynques comparables par leur taille et leur activité, mais non par leur habitat, la réserve alcaline est d'autant plus élevée que l'animal présente une vie aérienne plus importante.

**Fontaine M.** - Remarques sur la fluorescence des Chlorophycées marines [*Considerationes circa fluorescentiam in Chlorophyceis marinis*]. Rev. Algol., Notes, VII, 1/2, 189-192. Paris (1934). **b - 183**

L'A. conclut que chez les Chlorophycées tant marines que d'eau douce la chlorophylle in situ et in vivo est normalement fluorescente.

**Giacomini Ercole** - Il sistema interrenale e i corpuscoli di Stannius dei Ganoidi e dei Teleostei [*De systhemate interrenali deque corpusculis τοῦ Stannius in Ganoideis et Teleosteis*]. Boll. Soc. Ital. Biol. Sper., VIII, 6, 1215-1220. Napoli (1933). **b - 184**

Dal confronto tra le disposizioni che si hanno nei Ganoidi e quelle che s'incontrano nei Teleostei, risulta che in questi ultimi il vero interrenale, omologo all'interrenale dei Selaci e alla corticale surrenale dei Mammiferi è l'« interrenale anteriore » e non lo sono affatto i cosidetti corpuscoli di Stannius, contrariamente a quanto erasi in addietro ritenuto.

**Giersberg H.** - Physiologie des Farbwechsels bei Tieren [*De physiologia coloris mutationis in Piscibus*]. 4 Abb., Zool. Anz., 7. Supplementband, 96-126. Leipzig (1934). **b - 185**

Der physiologische Farbwechsel mit drei angegebenen Arten der Beeinflussung der Farbzellen. Der morphologische Farbwechsel mit besonderer Berücksichtigung der innersekretorischen Drüsen. Als Beispiele sind u. a. *Crangon* und *Palaemonetes* angeführt worden.

**Hardenberg J. D. F.** - Ein Töne-erzeugender Fisch [*Piscis qui sonos emittit*]. Zool. Anz., CVIII, 224-227. Leipzig (1934). **b - 186**

In and near the mouths of the big rivers of the Sunda islands one may often hear sounds, which can be so loud that it is even impossible to sleep. Mostly these sounds are described to the friction between each other of several layers of water with a different density. It is shown now that the sound is caused by Fishes, species of the genus *Therapon*. The noises are made by the air-bladder which is divided into two parts. The distal part is about thrice as voluminous as the proximal part which is more or less spherical, and which is attached to the skull by two muscles. The biological meaning of the sound is unknown as far as now.

**Harvey E. Newton** - Biological Effects of Heavy Water [*De effectibus biologicis aquæ ponderosæ*]. Biol. Bull., LXVI, 2, 91-96. Lancaster, Pa. (1934). **b - 187**

Heavy water (85-95 per cent) has been found not to prevent the luminescence of dried *Cypridina* nor to affect the luminescence of a fresh water luminous *Bacterium* but to diminish the luminescence of a marine form; to retard growth of luminous *Bacteria* sometimes allowing slow growth without luminescence; to kill a number of *Protozoa* and Rotifers, but not to kill *Bacteria* and not to injure *Euglena* irreversibly.

**Hoadley Leigh** - Autotomy in the Anomuran *Porcellana platycheles* (Pennant) [*De autotomia in specie « Porcellana platycheles »* (Pennant)]. 3 tabl., Biol. Bull., LXVII, 3, 494-503. Lancaster, Pa. (1934). **b - 188**

From the experiments reported here it is evident that animals with all the appendages present autotomize much more readily than do animals which have already cast some of their legs. The act of autotomy in itself appears, therefore, to have a very definite influence on the reflex, for the fact of which two theories are presented that should require testing. There has further proved to be a fundamental difference in the reactions of the two sexes.

**Huxley J. S. & Callow F. S.** - A Note on the Asymmetry of Male Fiddler-Crabs (*Uca pugilator*) [*De asymmetria in masculis speciei « Uca pugilator »*]. 3 figs., Roux' Arch., CXXIX, 2, 379-392. Berlin (1933). **b - 189**

The A. determines the changes, if any, in the degree of asymmetry showed by the paired organs; in other words, whether the ratio of organ from the side of the large chela to that from the side of the small chela shows a progressive alteration with increase of absolute body-size. He gives also the ratios which do not concern asymmetry. The results of these measurements are expressed in graphs and tables, as well as the differences between the right-handed and left-handed specimens.

The A. finally makes an attempt to give an explanation of all the facts observed.

**Kahmann H.** - Ueber das Vorkommen einer « Fovea centralis » im Knochenfischauge [*Fovea centralis eiusque præsentia in oculo Teleosteorum*]. Zool. Anz., CVI, 49-55. Leipzig (1934). **b - 190**

**Kerr J. Graham** - Archaic Fishes - *Lepidosiren*, *Protopterus*, *Polyterus*, and their Bearing upon Problems of Vertebrate Morphology [*Pisces archaici, Lepidosiren, Protopterus, Polypterus eorumque momentum in problematis de morphologia Vertebratorum*]. Jenaische Ztschr. Naturwiss., LXVII, 419-433. Jena (1932). **b - 191**

This paper reviews the main conclusions which emerge from the work of the author and his school upon the embryology and comparative anatomy of the surviving examples of the *Crossopterygii* and *Dipnoi* in so far as they affect problems of general interest. A special interest is dedicated to the skeletal structures, the origin of pigment cells, the morphology of the central nervous system, the development of muscle fibers, the vascular system, the question of the external gills as modern larval adaptations and the evolutionary origin of the vertebrate limbs. Reference is also made to hypothetical pelagic ancestors and to the *Protostoma* theory as being the only working hypothesis concerning the development of Vertebrates.

**Kreps E.** - Organic Catalysts or Enzymes in Sea Water [*Catalisatores et enzymi organici in aqua marina*]. 5 tabl., James Johnstone Mem. Vol., 193-202. Liverpool (1934). **b - 192**

Some original experimental data are referred to, which bring new evidence in favour of the idea that sea water contains various catalysts, probably of organic origin (enzymes), which manifest their catalytic action upon chemical reactions in samples of sea water, poisoned with $HgCl_2$ or filtered through a Seitz ultrafilter.

**Krogh August** - Physiology of the Blue Whale [*De physiologia speciei « Balaenoptera musculus »*]. 1 fig., Nature, CXXXIII, 3365, 635-637. London (1934). **b - 193**

Rate of growth. Metabolism, circulation and respiration. Liability of Whales to caisson disease.

**MacDonald Roderick** - Studies on the Defaecation of Marine Invertebrates [*Studia defaecationis in Invertebratis marinis*]. Woods Hole Oceanogr. Instit., Rep. 1933, App., 25-26. Woods Hole, Mass. (1934). **b - 194**

Possibility of the identification of the excremental pellets to determine species; study of the rate of defaecation in some bottom forms and in some cases, e. g. in *Arbacia punctata*. Observations on the faecal pellets from various points of view.

**Magnan Antoine, Magnan Claude & de Villelongue Albert** - Contribution à l'étude de la vision des Poissons [*Contributiones in Piscium visum studendum*]. C. R. Acad. Sc., CXCIX, 16, 736-738. Paris (1934). **b - 195**

Les AA. ont étudié les indices des divers milieux transparents de l'oeil de quelques Poissons : la truite commune, le brochet, le maquereau, dont il résulte que les diverses espèces sont légèrement myopes.

**Ozaki Yoshimasa** - Lymph System of *Teleotrema caudatum* [*Systhema lymphaticum speciei « Teleotrema caudatum »*]. 3 figs., Proc. Imp. Acad., X, 6, 380-383. Tokyo (1934). **b - 196**

Study of lymph system of *T. caudatum* from serial sections.

**Parker G. H.** - Studies of Fish Coloration [*Studia colorationis in Piscibus*]. Woods Hole Oceanogr. Instit. Rep. 1933, App., 26-27. Woods Hole, Mass. (1934). **b - 197**

Results of the work on the colour changes of the smooth dogfish, *Mustelus canis*, the identification of color changes in the little skate, *Raja erinacea*, and the color changes of certain Flatfishes.

**Peebles Florence & Fox Denis L.** - The Structure, Functions, and General Reactions of the Marine Sipunculid Worm *Dendrostoma zostericola* [*De structura, functionibus et reactionibus generalibus speciei « Dendrostoma zostericola »*]. 11 figs., Bull. Scripps Instit. Oceanogr., Techn. Ser., III, 9, 201-224. Berkeley, Calif. (1933). **b - 198**

This paper contains a morphological part dealing with external features and internal anatomy and a study of various responses of the worm : to food, to contact, to stagnation of the medium, to sound and other vibrations, to light stimuli etc. The effect of the injury caused by the removal of parts is also dealt with.

**Pettersson Hans, Höglund Hans & Landberg Svante** - Submarine Daylight and the Photosynthesis of Phyto-plankton [*Correlatio inter lucem diurnam submarinam et photosynthesim phytoplanctonicam*]. 4 figs., 5 tabl., Medd. Göteborgs Högskolas Oceanogr. Instit. (Göteborgs Kungl. Vetenskaps- och Vitterhets-Samhälles Handl. Femte Följden. Ser. B., IV, 5), 1-17. Göteborg (1934). **b - 199**

Experiments undertaken to find « compensation intensity » of submarine daylight corresponding to an equilibrium between photosynthesis and respiration in their effects on the oxygen content of the water have been carried out at Bornö Station. The preliminary value of this compensation intensity found from experiments with plankton containing a certain amount of zooplankton was 400 lux.

**Pierantoni Umberto** - Studi sui pigmenti dei Tunicati. Osservazioni su *Botrylloides leachi* (Sav.) e *Clavelina lepadiformis* (Müll). [*De pigmentis Tunicatorum. Observationes circa species « Botrylloides leachi »* (Sav.) *et « Clavelina lepadiformis »* (Müller)]. 1 tav., Atti R. Accad. Sc. fis. e matem., ser. II, XIX, 3, 1-14. Napoli (1933). **b - 200**

Fenomeno del cambiamento stagionale dei colori dell'ascidia composta *Botrylloides leachi*, cause delle variazioni dello stato delle capsule a pigmento aderenti alle pareti dei seni periferici. Origine di queste capsule da cellule vaganti nell'emolinfa, origine del pigmento, sua natura chimica (gruppo delle melanine). Disposizione del pigmento bianco di *Clavelina lepadiformis*, sua origine da speciali ameboidi del sangue, e comparsa dei granuli in vacuoli del plasma di esse. La sua natura chimica corrisponde alla guanina. Questi Tunicati, anche per la natura dei pigmenti, si avvicinano grandemente ai Vertebrati.

**Pintner Theodor** - Zur Kenntnis des Exkretionssystems der Cestoden [*Studia ad systema excretorium cognoscendum in Cestodis*]. 7 Abb., Sitz. Ber. Akad. Wiss., Abt. 1, CXLII, 5/7, 205-211. Wien (1934). **b - 201**

Der Vf. bespricht besonders die verschiedenen aus der glatten Gefässwand herausgezerrten Zipfel und derartigen Bildungen, welche sich weiter verzweigen und somit neue Windungen bilden (*Acanthobothrium filicolle* aus *Raja asterias*, *Trilocularia* (*Monorygma*) *gracilis* Olss. aus *Acanthias* und *Acanthobothrium coronatum* aus *Scyllium canicula*). Es werden auch die sehr komplizierten Gefässformen der Tetrarhynchen behandelt.

**Raphaël Claudette** - Étude de la trompe des Glycères et de son organe excréteur d'hémoglobine [*Studium tubarum in Glycera eiusque organi quod hemoglobinam secernit*]. Trav. Stat. Biol. Roscoff, 11, 3-18. Paris (1933). **b - 202**

En étudiant la trompe de *Glycera* l'A. a apporté dans le détail des précisations nouvelles sur sa structure, ainsi que sur celle des papilles qui la recouvrent. Il a observé la couronne de languettes qui pend dans le coelome, et à laquelle on attribuait un rôle nerveux. Selon l'A. cette couronne de languettes pourrait être un organe d'épuration éliminant l'hémoglobine.

**Redfield Alfred C.** - Studies in Marine Biology and Biological Chemistry [*De biologia et chemia biologica*]. Woods Hole Oceanogr. Instit. Rep. 1930-32, 44-45. Woods Hole, Mass. (1933). **b - 203**

Brief account of the work continued in 1932 (1) on the equilibrium of oxygen with respiratory proteins of marine animals ; (2) of the oxygen dissociation curves of the hemocyanin of the squid ; (3) of the asphyxiation of the squid at various temperatures ; (4) of certain properties of the blood of porpoise important in respiration ; (5) of the oxygen dissociation curves of the blood of the toadfish, *Opsanus tau* L., tautog, *Tautoga onitis* L., and goosefish, *Lophius piscatorius* L. ; (6) of the carotinoid pigments of *Crustacea* ; (7) and of observations made during a short cruise of the « Atlantis » to the Gulf of Maine with a view to determine whether there existed diurnal alternations in the hydrogen ion concentration and oxygen content of the sea water occasioned by the interruption of photosynthetic activity during the night.

**Rizzo Carlo** - Sui movimenti dei Teleostei in rapporto con lesioni sperimentali degli apparati periferici di moto e di senso. III : Lesioni della linea laterale [*De motibus Teleosteorum pro vulneribus ad experimentum inlatis in apparatibus perifericis motus et sensus. III. Vulnera lineae lateralis*] Boll. Soc. Ital. Biol. Sper., VIII, 2, 153-156. Napoli (1933). **b - 204**

Esperimenti condotti su Teleostei marini (Labridi) e d'acqua dolce (Ciprinoidi), allo scopo di controllare la importanza o meno della linea laterale del moto dei Teleostei, e, più precisamente per vedere se la distruzione di una o di entrambe le linee laterali riproducesse in tutto o in parte quei disturbi della locomozione e dell'equilibrio già dall'A. analizzati nei pesci encefalolesi. Risulta che la distruzione di uno o di entrambe le linee laterali non ha una particolare importanza agli effetti del nuoto e dell'equilibrio dei Teleostei.

**Rollefsen Gunnar** - The Cod Otolith as a Guide to Race, Sexual Development and Mortality [*De otholitis in specie « Gadus morrhua » ac indicibus originis, progressionis sexualis et mortalitatis*]. 8 figs., Rapp. Pr.-Verb. Cons. Expl. Mer (Scient. Rep. North Eastern Area Comm. 1934), LXXXVIII, 1-5. Copenhague (1934). **b - 205**

Referring to a preliminary publication the A. here tries to sustain the theory that the otoliths may serve for determining different races, the extent of maturity, increase and decrease in the stock of « skrei ». Some calculations concerning age- and length-distribution and spawning classes are expressed graphically and discussed.

**Sandon H.** - Pseudopodial Movements of *Foraminifera* [*Foraminifera. Pseudopoda eorumque motus*]. Nature, CXXXIII, 3368, 761-762. London (1934). **b - 206**

Re-examination of the different types of pseudopodia to elucidate the protoplasmic changes accompanying amoeboid movement.

Preliminary observations which have some bearing on the following questions: exact location of the various moving streams; nature of the motive force producing them; the conditions of stability of the fluid pseudopodia.

**Schmidt-Nielsen S., Flood Arne & Stene Jørgine** - On the Size of the Liver of some Bone-fishes, their Content of Fat and Vitamin A. [*De magnitudine jecinoris aliquorum Teleosteorum. Agitur de continentia adipis et vitaminæ A in Teleosteis*]. Tab., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 38, 146-149. Trondheim (1934). **b - 207**

In a table are given the results of the last six years' researches on the colour reaction after Carr and Price of the liver oil from about 30 different bone-fishes, as well as the size of the liver in per cent of the total weight, and its content of fat. The highest tintometer number of the liver oil was found for the *Macrurus*, i. e. 5000-12000.

**Spärck R.** - Investigations on the Biology of the Oyster. X. Some Preliminary Investigations on the Power of Filtration in *Ostrea edulis* [*Inquisitiones in biologiam ostreae. X. Investigationes priores in possibilitatem filtrationis in Ostrea eduli*]. Rep. Danish Biol. Stat., XXXVIII, 31-32. Copenhagen (1933). **b - 208**

Description of the experiments undertaken at the Zoophysiological laboratory of the university on the vigour of the ciliary motion of the oyster in water not moved by currents.

**Sumner Francis** - Studies of the Mechanism of Color Changes in Fishes [*Studia colorationis Piscium quoad mechanismum mutationis*] James Johnstone Mem. Vol., 62-80, Liverpool (1934). **b - 209**

The present paper is restricted to pronounced color changes on the part of Fishes which are induced by optic stimuli. The discussion is limited to certain problems to which the writer has devoted particular attention, i. e. (1) responses to the intensity or quality of the incident light, and (2) responses to the shade or the color of the background. The mechanism of those responses are dealt with and various hypothesis concerned with the determining factors in these reactions are discussed.

**Takahasi Sadae** - On the Variability of Paragnathi in *Nereis mictodonta* Marenzeller (*Perinereis nuntia* var. *brevicirris* Grube) [*Quæstio de variabilitate paragnathorum in specie «Nereis mictodonta»* Marenzeller (*Perinereis nuntia var. brevicirris* Grube)]. 4 figs., Ann. Zool. Jap., XIV, 1, 35-40. Tokyo (1933). **b - 210**

The great variation in the number and arrangement of the paragnathi.

**Watzka Max** - Vergleichende Untersuchungen über den ultimobranchialen Körper [*Inquisitiones comparativæ in corpusculum ultimobranchiale*] 35 Abb., Ztschr. f. Mikroskop-Anat. Forsch., XXXIV, 4, 485-533. Leipzig (1933). **b - 211**

Der Vf. sucht hier durch ausgedehnte vergleichende Untersuchungen ein besseres Verständnis des Bauplanes und der Wirkungsweise des ultimobranchialen Körpers zu gewinnen. Bei den niedrigsten Wirbeltierklassen, den Cyclostomen, ist kein dergleiches Organ nachgewiesen worden, bei den Fischen ist dieser ultimobranchiale Körper schon bei den Elasmobranchiern, an Embryonen verschiedener Selachierarten und bei den Teleostiern unter verschiedenen Formen vorhanden. Drei Teleostier, *Scomber scomber*, *Centronotus gunellus* und *Zoarces viviparus* sind vom Vf. untersucht, beschrieben und mit anderen Organen verglichen worden.

## *Apparatus musculorum et scheletrum - Quæstio de motu.*

**Benazzi Mario** - L'influenza dell'acqua di mare diluita sui movimenti ritmici delle Meduse [*De influentia aquæ maris dilutæ in motus rythmicos Medusarum*]. Boll. Zool., IV, 6, 211-219. Napoli (1933). **b - 212**

L'A. dopo aver riassunti dati risultanti dalla letteratura, espone osservazioni compiute su due Scifomeduse: *Rhizostoma pulmo* e *Cotylorhiza tuberculata*, nelle quali si era proposto di indagare l'influenza di una varia e progressiva diluizione dell'acqua marina sul ritmo e sulla frequenza dei movimenti da esse compiuti, nonchè il loro meccanismo fisiologico. Risulta che l'attività contrattile delle Meduse in questione, offre verso un ambiente esterno ipotonico, una resistenza nettamente superiore a quella presentata dal cuore di questi Invertebrati.

**Bonde (von) Cecil** - Contributions to the Morphology of the *Elasmobranchii*. I. The Craniology and Neurology of a Hammerhead Shark *Sphyrna* (*Cestracion*) *zygaena* (Linnaeus) [*Contributiones in morphologiam Elasmobranchiorum I. De craniologia et neurologia speciei «Sphyrna (Cestracion) zygæna» (Linnaeus), quæ capite est prædita instar mallei*]. 9 figs., 4 pl., Journ. Comp. Neurol., LVIII, 2, 377-399. Philadelphia, Pa. (1933). **b - 213**

Notes on the different species of the family *Sphyrnidae*, in which the head is laterally expanded in the frontal region, so that it is T- or hammer-shaped. The sensory canal system. The skull. The eye muscles. The central and the peripheral nervous system.

**Bonde (von) Cecil** - Contributions to the Morphology of the *Elasmobranchii*. II. The Craniology and Neurology of a Saw Shark, *Pliotrema Warreni* Regan [*Contributiones in morphologiam Elasmobranchiorum. II. De craniologia et neurologia speciei «Pliotrema Warreni»* Regan]. 5 figs., 3 pl., Journ. Comp. Neurol., LVIII, 2, 405-414. Philadelphia, Pa. (1933). **b - 214**

Owing to the presence of an elongated rostrum the craniology and neurology of this species are peculiar: Sensory canal system. The skull. The eye muscles. The nervous system: central nervous system, peripheral nervous system.

**Campbell J.** - The Composition of Lobster Muscle [*De compositione musculorum in specie «Homarus americanus»*]. Ann. Rep. Biol. Board Canada, 1933, 16-17. Ottawa (1934). **b - 215**

Study of the non-protein nitrogenous constituents of lobster muscle (*Homarus americanus*) in relation to its digestion. A larger effect on the digestive secretions from the above constituents of lobster muscle than from the same constituents of haddock, cod or herring muscle.

**Campbell J.** - The Composition of Skate Muscle *Raja stabuliforis* [*De compositione musculorum in specie «Raja stabuliforis»*]. Ann. Rep. Biol. Board Canada, 1933, 17. Ottawa (1934). **b - 216**

Results of some determinations made of the non-protein nitrogenous constituents of the «wing» muscles of the «barn-door» skate. The values for volatile base nitrogen and urea nitrogen are of the same order as that for cod or herring.

**Chabanaud Paul** - Le complexe basisphénoïdien et le septum orbitaire nadiral des Poissons héteromes [*Complexus basisphenoidicus et septum orbitale nadirale Piscium heterosomatum*]. C. R. Acad. Sc., CXCVIII, 21, 1875-1877. Paris (1934). **b - 217**

Différences dans la constitution du basisphénoïde et du septum interorbitaire, entre les *Psettodidae* et les autres *Heterosomata*.

**Chauchard A., B. & P.** - Recherches sur le fonctionnnement neuro-moteur chez quelques animaux marins [*Inquisitiones in functionem neuromotoriam aliquorum animalium marinorum*]. Bull. Labor. Marit. Saint Servan, XII, 23-35. Rennes (1934). **b - 218**

On sait que la chronaxie est susceptible de varier dans les éléments nerveux reliés aux centres, et que cette variation est à la base du mécanisme régulateur du fonctionnement nerveux; quand les éléments nerveux ne sont plus reliés aux centres, la chronaxie se stabilise : chronaxie « de constitution », opposée à la chronaxie « de subordination ». Ces faits s'étendent-ils à des animaux marins (Crustacés et Sélaciens) ? 1) Etude sur *Portunus puber*. La section des connectifs périoesophagiens, section qui supprime l'action des ganglions céréboïdes sur les nerfs moteurs, est suivie d'une augmentation de la chronaxie de ces nerfs. Une seconde augmentation s'observe à la suite de l'élimination du centre sous-oesophagien : il y a donc une double subordination. L'action du chloroforme produit le même effet que l'isolement du ganglion cérébroïde, mais elle n'atteint pas le centre abdominal ; 2) Etude sur *Scylliorhinus canicula*. La subordination s'y manifeste, comme chez les autres Vertébrés, par une variabilité de la chronaxie, qui fait place à une stabilisation après la section ou après l'action du chloroforme.

**Fedele Marco** - Ricerche sulla natura dei ritmi muscolari negli Invertebrati [*Rythmi musculares Invertebratorum inquisitionesque in eorum naturam*]. 4 fig., Arch. Sc. Biol., XIX, 2, 107-143. Napoli (1933). **b - 219**

Il sistema nervoso dei *Thaliacea*, come di tutti i Tunicati, non presenta nulla che possa ritenersi come una rete fibrocellulare diffusa periferica, un neuro-epitelio in rapporto con il sensorio e con la muscolatura somatica. Il sistema nervoso in rapporto al sensorio e all'attività contrattile dei muscoli somatici dei *Thaliacea* ha il suo centro esclusivo nell'unico ganglio dorsale. Le contrazioni ritmiche della muscolatura somatica dei Salpidei dipendono dal centro nervoso; il ritmo dell'intera muscolatura somatica si coordina esclusivamente nel centro nervoso. La distruzione della sinapsi sensoriomotrice abolisce questi riflessi, ma non l'attività ritmica della muscolatura. Il sensorio non entra nella determinazione del ritmo muscolare somatico, ma influisce solo sulla regolazione di esso. Quello somatico delle Salpe può definirsi un ritmo muscolare autonomo neurocentrigeno.

**Fedele Marco** - Sul ritmo muscolare somatico delle Salpe [*De rythmo musculari somatico in Salpis*]. Boll. Soc. Ital. Biol. Sper., VIII, 4, 475-478. Napoli (1933). **b - 220**

I risultati testimoniano la centrigenità degli impulsi e la loro natura discontinua, per il fatto che nelle Salpe l'ipotesi di un impulso continuo partente dal centro non spiegherebbe la sincronia del ritmo fra i diversi gruppi di fasce muscolari, come difficilmente lo spiegherebbe l'ipotesi di impulsi ritmici centrali di successione diversa dalle manifestazioni ritmiche contrattive.

**Fedele Marco** - Muscoli e attività muscolare nei *Thaliacea* [*De musculis et activitate musculari in Thaliaceis*]. Boll. Soc. Natural. Napoli, XLIV, 1932, 237-250. Napoli (1933). **b - 221**

Studio istologico e fisiologico della muscolatura dei *Thaliacea*; caratteri istologici distribuiti in sette tipi, fra i quali cinque rappresentati da elementi striati dei *Salpidae* e due da elementi lisci dei *Doliolidae*. Studio fisiologico dell'attività ritmica della muscolatura dei *Salpidae*, che si dimostra attività autonoma neurocentrigena, la cui determinazione è connessa con la zona di cellule motrici del ganglio centrale ed è indipendente dal sensorio.

**Graham Alastair** - The Cruciform Muscle of Lamellibranchs [*De musculo cruciformi in Lamellibranchiatis*]. 6 figs., Proc. R. Soc. Edinburgh, 1933-34, LIV, 1, 17-30. Edinburgh (1934). **b - 222**

The cruciform muscle of Lamellibranchs has always been associated with its special sense organs. It has been studied in the following species: *Donax vittatus*, *Tellina crassa*, *Macoma balthica*, *Scrobicularia plana*, *Gari tellinella*, and *Solecurtus scopula*.

It is suggested that the cruciform muscle and its sense organs form a water-testing apparatus. On the basis of the occurrence of this structure in certain of its members the family *Solenidae* is broken into two families : 1) the *Solenidae*, without a cruciform muscle ; 2) the *Solecurtidae*, which possess one.

**Hart J. L.** - Investigations Dealing with Vertebra Number in Young Herring [*Inquisitiones in numerum vertebrarum aringi juvenis*]. Ann. Rep. Biol. Board Canada, 1933, 86. Ottawa (1934) **b - 223**

Some results of a study on the vertebral numbers in young herring showing significant differences between herring from various localities and the higher proportion of abnormal vertebrae in the young herring in comparison with the proportion found among adults.

**Howell A. Brazier** - The Architecture of the Pectoral Appendage of the Dogfish [*Architectura appendicis pectoralis in Squalis*]. 4 figs., Journ. Morphol., 399-413. Boston (1933). **b - 224**

**Howell A. Brazier** - Morphology of the Pectoral Architecture in Fish [*Morphologia structuræ pectoralis in Piscibus*]. Mount Desert Island Biol. Labor., Annual. Announc. 1933 and Rep. 1932, 23. (1933). **b - 225**

**Howell A. Brazier** - Morphogenesis of the Shoulder Architecture. Part II. Pisces [*De morphogenesi in architectura humeri. Pars II. Pisces*]. 12 figs., Quart. Rev. Biol., VIII, 433-464. Baltimore (1933). **b - 226**

Historical. Apinnate Chordates. Fossil prefishes. Chondrichthyes. Genesis of the appendages : fin-fold theory and gill-arch theory, position of the appendages, exoskeletal fin genesis, stimulation by diverse uses. Anatomical evidence in living fish: pharyngeal, skeletal, neurological and myological evidence.

**Jennison Marshall Wolker & Wymond Miller Bunker John** - Analysis of the Movement of Cilia from the Clam (*Mya*) by High-speed Photography with Stroboscopic Light. [*Analysis motus ciliarum in quadam Mya per photographiam maxima velocitate lucis stroboscopicae auxilio*]. Journ. Cell. & Comp. Physiol., V, 2. (1934). **b - 227**

A new tool in biological research — the stroboscopic-light, high-speed motion picture camera — was used to obtain photomicrographic records of ciliary movement, pictures being taken at the rate of 200 per second. Analysis showed the form of the cilia to be different during the effective and recovery strokes, in the former, the rigid cilium had a pendular movement ; in the latter, it was limp with a hook-like form. The total time for the complete ciliary cycle varied appreciably in consecutive beats of the same cilium, although the effective stroke was always three or four times as rapid as the recovery stroke. Both the effective stroke and the recovery stroke begin at the base of the cilium, the tip lagging slightly behind the proximal portion (Authors) (Bibliogr. Serv. Wistar Inst., 5285).

**Langstroth M. A.** - Development and Fat-storing Ability of Lateral Muscle of Salmon [*Progressio et capacitas adipis cumulandi in musculis lateralibus salmonis*]. Ann. Rep. Biol. Board Canada, 1933, 25. Ottawa (9134). **b - 228**

Description of the musculus superficialis lateralis of salmon in regard to its development and fat-storing ability. Its comparison with the deeper lateral muscles.

**Raucci Tosca** - Ricerche sulla struttura dei muscoli adduttori dei Bivalvi [*Inquisitiones de structura musculorum abducentium in Bivalvis*]. 3 fig., Atti Soc. Ital. Sc. Natur. e Mus. Civ. St. Natur. Milano, LXXII, 3/4, 219-231. Milano (1933). **b - 229**

Cenni morfologici e fisiologici sui muscoli adduttori dei Bivalvi fatto nei Monomiari e Dimiari.

**Rendahl Hialmar** - Zur Osteologie und Myologie des Schultergürtels und der Brustflosse einiger *Scleroparei* [*De osteologia et myologia zonae scapularis atque pinnae pectoralis in quibusdam Scleropareis*]. 21 Abb., Ark. f. Zool., XXVI, H. 2, 12, 1-50. Stockholm (1934). **b - 230**

Die Absicht des Vf. ist es, hier gewisse für diese Gruppe anscheinend charakteristische, spezielle Züge festzustellen. Für die folgenden Spezies werden der Bau des Schultergürtels, die Artikulation der Brustflosse und die Muskulatur der Brustflosse berücksichtigt: *Epinephelus* sp., *Scorpaena porcus* Lin., *Cottus scorpius* Lin., *Hypsagonus quadricornus* Cuv. Val. Vergleichende Bemerkungen.

**Souché Georges** - Morphologie comparative des muscles élévateurs de la mandibule chez les Poissons [*Musculi elatores mandibulae Piscium. Quaestio de eorum morphologia comparata*]. fig., pl., 293 pp., Impr. Gounouilhou. Bordeaux (1932). **b-231**

**Stevenson J. A.** - On the Behaviour of the Long-finned Squid (*Loligo pealii*) [*Ratio agendi speciei « Loligo pealii »*]. Canad. Field Natural., XLVIII, 4-7. Ottawa (1934). **b - 232**

**Wagner Johanna** - Beiträge zur Kenntnis der *Nitzschia putrida* Benecke, insbesondere ihrer Bewegung [*Contributio ad speciem « Nitzschia putrida » cognoscendam. Agitur particulatim de eius motu*]. 10 Abb., Arch. f. Protistenk., LXXXII, 1, 86-113. Jena (1934). **b - 233**

Gleitbewegung. Kriechspuren. Metronombewegungen. Gruppenbildungen. Schwarmbildung.

## *Apparatus nervorum.*

**Babkin B. P. & Friedman M. H.** - Vagal and Sympathetic Motor Innervation of the Stomach in the Skate [*Innervatio motoria vagi et sympathici in stomacho Rajæ*]. Ann. Rep. Biol. Board Canada, 1933, 14. Ottawa (1934). **b - 234**

Results of investigations which show that in elasmobranch both the vagi and the spalanchnic nerves are motor, and that an impulse initiated in one part of the stomach spreads over the whole organ, which is in agreement with the theory of E. Müller and Liljestrand that the myenteric plexus in the skate is after the type of a nerve net and not of a synaptic nervous system.

**Boräng Sven** - Ueber den Bau des Gehirns von *Athanas nitescens* (Leach) mit besonderer Rücksicht auf eine ungewöhnliche Zusammenschmelzung der « Corpora pedunculata » [*De structura cerebri in A. n.* (L.) *Agitur particulatim de notabili quadam fusura corporum pedunculatorum*]. 8 Abb., Ark. f. Zool., XXV, H. 4, 19, 1-16. Stockholm (1934). **b - 235**

Material und Technik. Der allgemeine Typus des Gehirns von *Athanas*. Die Sehmassen und die Medulla terminalis. Die Verbreitung der Ganglienzellen. Die übrigen Neuropile des Gehirns. Der Verlauf einiger der Fasern im Gehirn. Das organ x.

**Jelgersma G.** - Das Gehirn der Wassersäugetiere [*De cerebro Mammaliorum aquaticorum*]. 188 Abb., 238 S., Joh. Ambr. Barth. Leipzig (1934) **b - 236**

Ein Versuch die Funktion gewisser Hirnteile auf vergleichend anatomischen Wege aufzuklären. Zur Untersuchung der Anpassungsfähigkeit des Gehirns and das Wasserleben, besonders in Bezug auf das Kleinhirn und den Nervenstamm, sind hier Tümmler, amerikanische Seekühe, Seehunde und Fischotter gewählt.

**Kühl H.** - Die Fortbewegung der Schwimmkrabben mit Bezug auf die Plastizität des Nervensystems [*Motus cancrorum quoad plasticitatem systhematis nervorum*]. Ztschr. f. Vgl. Physiol., XIX, 489-521. Berlin (1933). **b - 237**

(Trav. Stat. Biol. Marit. de Lisbonne N. 34).

**Rizzo Carlo** - Intorno alla struttura dei « glomeruli » del nucleo rotondo dei Teleostei [*De structura glomerulorum nuclei rotundi in Teleosteis*]. Riv. Neurol. (IX Congr. Soc. Ital. Neurol., Modena 5-8 ott. 1932), VI, 1, 126. Napoli (1933). **b - 238**

Descrizione particolareggiata del corpo glomeruloso (o nucleo rotondo): grossa formazione pari del diencefalo di taluni gruppi di Teleostei, in base all'applicazione dei più fini ed elettivi metodi di citologia nervosa.

**Suyehiro Y.** - Doesn't the Vomiting Center Exist in the Fish ? [*Num loqui possumus de centro vomitionis in Piscibus ?*] (In Jap., Engl. Rés.). 2 figs., 3 tabl., Bull. Jap. Soc. Scient. Fish., II, 6, 307-311. Tokyo (1934). **b - 239**

The writer makes suggestion on the existence of the vomiting center in the fish.

**Svensson Erik** - Ueber die Augen und das Gehirn von *Haploops tubicola* Lilj. [*De oculis et cerebro speciei « Haploops tubicola »* Lilj.]. 7 Abb., Ark. f. Zool., XXV A, H. 4, 18, 1-16. Stockholm (1934). **b - 240**

Der Vf. sucht hier zu beweisen, dass das bei *Haploops tubicola* Lilj. von ihm gefundene dritte Augenpaar auch bei *Ampelisca* vorkommt. Das dorsale Augenpaar: der Bau des Linsenauges, die Cornealinse, die Hypodermisschicht, der Glaskörper und dessen Kernschicht, die Semperschen Kerne und die Kristallkegel, die Retinaschicht. Das ventrale Augenpaar. Das caudo-dorsale Augenpaar. Das Gehirn. Kommissuren.

**An.** - LI. Nervous System and Sense Organs. *Crustacea Branchiopoda* [*LI. De systhemate nervorum deque organis sensuum. Crustacea Branchiopoda*]. 5 figs., Journ. Entomol. & Zool., XXVI, 3, 35-45. Claremont, Calif. (1934). **b - 241**

General form of the nervous system of branchiopod *Crustacea* according to the description of several preceding authors. General form of the ganglia. Cells. Fiber tracts. Some general conclusions.

**An.** - Nervous System and Sense Organs. LII. *Crustacea* [*De systhemate nervorum deque organis sensuum. LII. Crustacea*]. 7 figs., Journ. Entomol. & Zool., XXVI, 4, 58-69. Claremont, Calif. (1934). **b - 242**

Anatomical description of the nervous system and sense organs in the following groups: *Ostracoda, Cirripedia, Copepoda, Nebaliacea, Cumacea.*

## *Circulatio et apparatus sanguinis.*

**Boucher-Firly S.** - Sur quelques constituants chimiques du sang de congre et de murène [*Constituentes chimici sanguinis in generibus « Conger » et « Muræna »*]. 3 tabl., Bull. Inst. Océanogr., 651, 1-7. Monaco (1934). **b - 243**

Historique. Techniques utilisées. Les résultats des dosages effectués, soit dans le sérum, soit dans le sang total, chez le congre et la murène, sont très comparables. Les différences concernent : la teneur en protéines et la réserve alcaline.

**Daniel Frank J.** - The Circulation of Blood in *Ammocoetes* [*De sanguinis circulatione in « Ammocoetes »*]. 11 figs., Univ. Calif. Publ. in Zool., XXXIX, 16, 311-340. Berkeley, Calif. (1934). **b - 244**

The present work is concerned with the structure and development of the organs of circulation, and the movement of blood in the head and pharynx of *Ammocoetes*, the larva of the Cyclostome, *Entosphenous tridentatus*, which occur in abundance in the mouths of streams along the western Pacific slopes.

**Fontaine M. & Boucher-Firly S.** - Recherches sur la réserve alcaline du sang des Poissons. Ses variations au cours des changements de salinité [*Inquisitiones in reservam alcalinam sanguinis Piscium. Quæstio de eius variationibus, salsedinis mutationibus perdurantibus*]. Bull. Inst. Océanogr., 646, 1-12. Monaco (1934). **b - 245**

Chez un poisson euryhalin, l'anguille, la réserve alcaline diminue très rapidement au début du séjour en eau salée. Chez les Poissons dulçaquicoles (sténohalins ou euryhalins) l'augmentation de salinité entraîne une diminution très importante de la réserve alcaline du sang. Chez les Poissons sténohalins marins une diminution de salinité entraîne une augmentation importante de la réserve alcaline du sang. Interprétation et discussion de ces résultats.

**Hopkins A. E.** - Accessory Hearts in the Oyster, *Ostrea gigas* [*De cordibus additiciis in specie « Ostrea gigas »*]. 2 figs., 1 table, Biol. Bull., LXVII, 3, 346-355. Lancaster, Pa. (1934). **b - 246**

In three species of *Ostrea* a pair of actively pulsating accessory hearts was observed in the lateral walls of the cloacal chamber. Counts of the rate of pulsation of heart and accessory hearts in *O. gigas* show that they act independently. Description of the course of circulation, as influenced by the accessory hearts.

**Hopkins A. E.** - Accessory Hearts in the Oyster [*De cordibus additiciis in ostrea*]. Science, LXXX, 2079, 411-412. New York (1934). **b - 247**

Description of two accessory hearts found in *Ostrea gigas*. Their activity, the rate of pulsation, their function. The circulatory system of the oyster.

**Laporta M.** - Sulla costituzione della emocianina di *Octopus* [*De hemocyanina in specie « Octopus ». Quæstio de eius constitutione*]. Arch. Sc. Biol. (XIV Congr. Int. Fisiol., Roma 29 ag.-3 sett. 1932), XVIII, 1/4, 219-220. Napoli (1933). **b - 248**

Preparazione e proprietà chimiche.

**Redfield Alfred C.** - Studies on the Physical Chemistry of Respiratory Proteins [*Studia chimico-physica proteinarum respirationis*]. Woods Hole Oceanogr. Instit. Rep. 1930-32, 34. Woods Hole, Mass. (1933). **b - 249**

Brief account of a study of the effect of temperature upon the equilibrium of the blood of marine Invertebrates with oxygen. A complete series of data has been obtained upon the blood of the horseshoe crab at temperatures varying between 5° C and 44° C.

**Reznikoff P. & Reznikoff Grout D.** - Hematological Studies in Dogfish (*Mustelus canis*) [*Studia de sanguine in specie « Mustelus canis »*]. 5 tabl., Biol. Bull., LXVI, 2, 115-123. Lancaster, Pa. (1934). **b - 250**

The normal blood picture and the effect of removal of blood and of turpentine injections : Blood picture in twenty-five dogfish ; effects of frequent removal of blood or removal of blood in large amounts ; of injection of sterile distillated water or of turpentine interperitoneally on the blood picture. These investigations indicate that the changes observed in the blood pictures at the above conditions may be of importance in comparative biological problems.

**Scatizzi Ida** - L'organo linfomieloide pericardico dello storione [*De organo lymphomieloidi pericardico acipenseris*]. 3 fig., Arch. Zool. Ital., XVIII 1/2, 1-26. Napoli (1933). **b - 251**

L'esame dello strato linfomieloide assai sviluppato che avvolge il cuore dello storione, fa ritenere che quest'organo a produzione mista, linfocitaria prevalentemente ed eritrocitaria secondariamente, non sia un tessuto semplicemente linfoide, ma un vero tessuto di tipo linfomieloide.

**Stolz-Picchio Teresa** - Le nostre conoscenze sulla ematogenesi embrionale e larvale nei Pesci [*Quæ cognovimus de hematogenesi embryonali et larvali in Piscibus*]. Rend. R. Ist. Lomb. Sc. e Lett., ser. II, LXVI, 6/10, 575-589. Milano (1933). **b - 252**

L'A. passa rapidamente in rassegna le cognizioni che si hanno attualmente sul modo col quale si verifica l'ematogenesi nell'embrione e nella larva dei pesci, tenendo distinti fra loro i diversi gruppi di questa classe, che offrono condizioni diverse.

**Suzuki Senji** - On the Distribution of Ganglion Cells in the Heart of the Oyster [*De distributione cellularum gangliarium in corde ostrearum*]. 6 figs., Sc. Rep. Tôhoku Imp. Univ., Fourth Ser., Biol., VIII, 4, 335-344. Sendai, Japan (1934). **b - 253**

The visceral ganglion consists of two parts : central fibrous and peripheral ganglion cell part. The ganglion cell is unipolar and has a large nucleus which contains a clear nucleolus.

The nerves which originate from the visceral ganglion and enter the tissue around the heart were observed.

The ganglion cells in the heart were discovered and the distribution of these cells were determined.

In the auricle were observed nerve fibers, which end in the muscle of the septum at the auriculo-ventricular junction forming any special end organs.

**Turner Abby H.** - Studies on the Colloid Osmotic Pressure of the Blood of Fishes [*De pressione osmotica colloidali sanguinis Piscium*]. 1 table, Woods Hole Oceanogr. Instit., Rep. 1933, 35. Woods Hole, Mass. (1934). **b - 254**

Results of a study of the colloid osmotic pressure of some species of elasmobranch and teleostean blood, 5 species and 3 species respectively, and of two Invertebrates, *Loligo* and *Limulus*. The species of Teleosts studied are the following ones : *Paralichthys dentatus, Prionotus carolinus, P. evolans strigatus, Sarda sarda*, and *Tautoga onitis*.

## *Alimentatio et apparatus digestionis.*

**Antoniu A.** - Notes sur l'anatomie du tube digestif chez quelques espèces du genre *Mugil* [*De anatomia apparatus digestionis aliquarum specierum ad genus « Mugil » pertinentium*]. 14 fig., Ann. Scient. Univ. Jassy, XIX, 1/4, 287-307. Jassy (1934). **b - 255**

Description détaillée des différentes régions du tube digestif. Variations spécifiques du tube digestif.

**Babkin B. P., Chaisson A. F. & Friedman M. H.** - Studies on Gastric Secretion in Skate [*De secretione gastrica in Raja*]. Ann. Rep. Biol. Board Canada, 1933, 13-14. Ottawa (1934). **b - 256**

Data obtained in an investigation carried on in order to study the mechanism of gastric secretion in the comparatively simple Vertebrates, the elasmobranch Fishes, and to elucidate on hand of the results obtained certain phases of the extremely complicated secretory processes of the higher Vertebrates.

**Battle Helen I.** - Laboratory Feeding of the Herring [*De alimentatione experimentali aringi*]. Ann. Rep. Biol. Board Canada, 1933, 14-15. Ottawa (1934). **b - 257**

Results of observations on the habits of the small herring (the sardine of commerce) acclimatized to laboratory tanks with running sea water, showing that his feeding is selective and carried on always by a definite act of capture and not by a mere straining process as thought by early investigators.

**Battle Helen I.** - Effect of Temperature on Rate of Digestion («Clearing») in Herring [*Effectus temperaturæ in digestionem aringi*]. Ann. Biol. Board Canada, 1933, 15. Ottawa (1934). **b - 258**

Results of investigation on sardine-size herring kept under laboratory condition, which allows to determine with some degree of accuracy the relationship between the time required for the «clearing» of the digestive tract and the environmental temperature.

**Berkeley C. J.** - Digestion in Clams and Oysters [*De digestione in «Pecten» et Ostreis*]. Ann. Rep. Biol. Board Canada, 1933, 70. Ottawa (1934). **b - 259**

Results of work on the crystalline style, the solid digestive agent occurring in Clams, Oysters and other Molluscs, and of a close study of the oxidising mechanism, which depends for its activity on some component, or components, of the Diatoms forming the food material of the Molluscs concerned.

**Bertolini Fausta** - Dentatura dei Selaci in rapporto con la nutrizione [*Correlatio inter dentes et alimentationem in Selachioideis*]. Atti R. Accad. Naz. Lincei - Rend. Cl. Sc. Fis., Matem. e Natur., XVIII, 5/6, 234-237. Roma (1933). **b - 260**

Esaminando la varietà di dentatura in rapporto alla diversità di vitto l'A. distingue quattro tipi di apparato boccale dei Selaci: Selaci predatori, Selaci masticatori, Selaci trituratori, Torpedini. Questi quattro tipi corrispondono a quattro diversi regimi di alimentazione caratterizzati prevalentemente da: Cefalopodi e Pesci, Crostacei, Molluschi con conchiglia e Paguri, Pesci paralizzati. Come varietà del I° tipo l'A. pone i Selaci mangiatori di plancton; rileva pure l'importanza dell'organo elettrico delle Torpedini nell'alimentazione di questi animali.

**Bond R. M.** - Digestive Enzymes of the Pelagic Copepod, *Calanus finmarchicus* [*Enzymi digestionis speciei «Calanus finmarchicus»*]. 1 fig., Biol. Bull., LXVII, 3, 461-465. Lancaster, Pa. (1934). **b - 261**

*Calanus finmarchicus* contains enzymes which digest protein, starch, and fat. Proteolytic digestion is performed by the extracted enzymes from pH 2.4 to above pH 11.0; there is a peak of activity at pH 3.6-4.0 and a still greater peak at pH 8.0-8.49. Digestion of starch is performed by the extract from slightly below pH 6.0 to above pH 8.0 with an optimum at about 7.2. There is no digestion of alginic acid at pH 8.0, and no evidence was obtained that it is digested at any other pH.

The copepod extract will digest Diatoms, Bacteria, and at least a part of the cell contents of a green flagellate.

**Cobb W. M.** - The Dentition of the Walrus, *Odobenus obesus* [*De dentitione in specie «Odobenus obesus»*]. 8 figs., 6 pl., Proc. Zool. Soc. London, 3, 645-668. London (1933). **b - 262**

On hand of material collected in Alaska.

**Cannon H. G.** - On the Feeding Mechanism of Certain Marine Ostracods [*De mechanismo alimentationis in Ostracodis quibusdam marinis*]. Trans. R. Soc. Edinburgh, LVII, 739-364. Edinburgh (1934). **b - 263**

**Chesley Leon C.** - The Concentration of Proteases, Amylase, and Lipase in Certain Marine Fishes [*Proteasica, amylasica et lipasica concentratio in Piscibus marinis*]. 6 tabl., Biol. Bull., LXVI, 2, 133-144. Lancaster, Pa. (1934). **b - 264**

In view of the fact that marine Fishes show great diversity as to food, feeding habits, special habitat, and rate and type of metabolism, it is to be expected that there will be adaptive variations in the amounts and sites of production of the different digestive enzymes secreted. It is the purpose of the present investigation to determine where the enzymes are secreted, and in what quantities, with a view to making correlations with the anatomy and physiology of the Fishes studied. The Fishes used were selected as representatives of diverse specialization, i. e.: (1) very active: *Scomber scomber* L., *Brevoörtia tyrannus* Latr., *Stenotomus chrysops* L.; (2) intermediately active: *Prionotus carolinus* L., *Spheroides maculatus* Bl. & Schn., and (3) inactive or sluggish: *Opsanus tau* L.

**Clemens W. A.** - Food of the Young Spring Salmon (*Oncorhynchus tschawytscha* in Shuswap Lake, British Columbia, (Canada) [*De alimentatione in specie «Oncorhynchus tschawytscha»*]. Canad. Field Natural., XLVIII, 142, Ottawa (1934). **b - 265**

**Dennell R.** - The Habits and Feeding Mechanism of the Amphipod *Haustorius arenarius* Slabber [*Consuetudines et mechanismum alimentare in specie «Haustorius arenarius» Slabber*]. Journ. Linn. Soc. (Zool.), XXXVIII, 363-388. London (1933). **b - 266**

**Fedele Marco** - Sul complesso delle funzioni che intervengono nel meccanismo ingestivo dei *Salpidæ* [*Complexus functionum in mechanismo ingestionis Salpidarum*]. Atti R. Accad. Naz. Lincei, Serie 6ª, Rend. Cl. Sc. Fis., Matem. e Natur., XVII, 3, 241-245. Roma (1933). **b - 267**

Sono state studiate cinque specie di *Salpidae: Cyclosalpa pinnata, Salpa democratica, S. maxima, S. fusiformis, S. confoederata* f. *bicaudata*. Oltre l'esame del contenuto intestinale l'A. ha fatto uno studio comparativo del plancton, pescato nelle località di cattura delle Salpe, e ha eseguito esperimenti di alimentazione in laboratorio. Questo studio ecologico è accompagnato dallo studio anatomico e fisiologico delle parti che intervengono nell'alimentazione. Nello studio del meccanismo ingestivo è stata presa in esame anche l'anatomia delle parti che in esso intervengono, in special modo della zona periesofagea, ancora non studiata in questi animali, e sono messi in evidenza i legami nervosi intercorrenti fra queste parti.

**Fedele Marco** - Sulla nutrizione degli animali pelagici. III: Ricerche sui *Salpidæ* [*De alimentatione in animalibus pelagicis. III. Inquisitiones in Salpidas*]. 13 ill., Boll. Soc. Natural. Napoli, XLV, 1933, 49-117. Napoli (1934). **b - 268**

Sulla base di uno studio planctologico, condotto nel Golfo di Napoli, e di indagini anatomiche e sperimentali sull'apparato digerente, sul sistema nervoso e sui vari organi e sulle attività dinamiche in rapporto con la ingestione, in cinque specie di *Salpidae* (*Salpa democratica, S. maxima, S. fusiformis, S. confoederata* f. *bicaudata, Cyclosalpa pinnata*), l'A. espone in questo studio i risultati riguardanti le qualità delle sostanze ingerite e la modalità della prensione degli alimenti tracciando, da un lato, un quadro delle varie specie di organismi e detriti ingeriti, in rapporto alla microflora e microfauna contemporanea nelle acque, e precisando, dall'altra, i vari fattori del meccanismo ingestivo, non solo nei riguardi delle disposizioni anatomiche dell'esofago, endostile, branchia, e delle varie formazioni ciliate connesse, ma illustrando e precisando il contributo e i rapporti funzionali di queste varie parti. Egli mette anche in luce i legami funzionali con il sistema nervoso, esaminando i dispositivi ricettori per gli stimoli chimici e tattili in rapporto con l'apparato digerente ed i centri autonomi viscerali, e dando di essi una rappresentazione anatomica.

**Huntsman A. G.** - Factors Making Plankton Available as Herring Food [*De plancton ac alimentum aringorum*]. Ann. Rep. Biol. Board Canada, 1933, 22-23. Ottawa (1934). **b - 269**

Description of the conditions in the Passamaquoddy region, which make available for the herring its food, consisting chiefly of Euphausiids (« shrimp ») and the copepod *Calanus* (the principal type of « red feed »). Tidal mixing of the water, which at times concentrates these deep-living organisms in the mixing places, where they are brought near to the surface and made available as food for the herring.

**Ihle J. E. W. & Ihle-Landenburg M. E.** - Anatomische Untersuchungen über Salpen. IV. Allgemeines über den Darmkanal der Salpen [*Inquisitiones anatomicæ in genus « Salpa ». IV. Generalia de canali intestinali*]. Zool. Anz., CIV, 149-200. Leipzig (1933). **b - 270**

**Johnson W. H.** - Herring Food in Passamabuoddy Bay [*De alimentatione aringi in Baja* Passamaquoddy]. Ann. Rep. Biol. Board Canada, 1933, 24. Ottawa (1934). **b - 271**

Results of analysis of the stomach contents of 1,500 Herrings obtained from St. Croix River, vicinity of Navy island, Perry shore, Little Letite, Big Letite, Back Bay, L'Etang, Quoddy River, and harbour de Loutre.

**McKenzie R. A.** - Stomach Analyses of Cod of Halifax Area [*Studium analyticum continentiae stomachalis in merluccio regionis* Halifax *nomine*]. Ann. Rep. Biol. Board Canada, 1933, 27. Ottawa (1934). **b - 272**

Result of an investigation carried on to determine what the cod's feeding habits are and what the factors governing the changes in this habits may be, since at certain seasons and in certain places, though present, they cannot be caught with the usual gear, namely baited hooks. The percentage of empty stomachs observed from the middle of May to the middle of September (approximately) 1933; the content of the full stomachs.

**Miyasaki I.** - On the Food Organisms of Oysters (1) [*De alimentatione ostrearum* (1)]. 1 fig., Bull. Jap. Soc. Scient. Fish., III, 2, 73-74. Tokyo (1934). **b - 273**

From a culture of food organisms for oyster the A. has separated a kind of green alga, which was found to tally completely with *Chlorella vulgaris* Beyerink.

**Mottley Jean C.** - The Food of the Kamloops Trout [*De alimentatione in specie « Salmo kamloops »* Jordan]. Ann. Rep. Biol. Board Canada, 1933, 91-92. Ottawa (1934). **b - 274**

Account of an analysis of the food of the trout at Paul Lake made in connection with the population studies. Collection of data regarding date of capture, sex, weight, length and degree of maturity of each of the 900 specimens examined. Results of the examination of the stomach contents by measuring their total volume and identifying, counting and measuring the volume of the various organisms.

**Moy-Thomas J. A.** - On the Teeth of the Larval *Belone vulgaris* and the Attachment of Teeth on Fishes [*Dentes in « Belone vulgaris ». Agitur etiam de iunctura dentium in Piscibus*]. Quart. Journ. Microscop. Sc., LXXVI, 481-498. London (1934). **b - 275**

**O'Donoghue Chas. H. & Boyd Elizabeth M.** - A Third Investigation of the Food of the Sea Trout (*Salmo trutta*), with a Note on the Food of the Perch (*Perca fluviatilis*) [*Inquisitio tertia in alimentationem speciei « Salmo trutta ». Nota de alimentatione in specie « Perca fluviatilis »*]. 7 tabl., Fish. Board Scotland, Salmon Fish., 2, 1-21. Edinburgh (1934). **b - 276**

This report is a continuation of two previous investigations and includes the detailed examination of the contents of the alimentary canals of 260 specimens from still further localities. Species identified in the food. Problems arising from the data obtained, as for instance, the lack of food in many stomachs.

**Ogilvie Helen S.** - A Preliminary Account of the Food of the Herring in the North-Western North Sea [*Inquisitiones priores in alimentum aringorum in parte nord-occid. Maris Nordici*]. 2 charts, 3 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, 3-ème partie, Appendices 1933-1934, LXXXIX, 85-92. Copenhague (1934). **b - 277**

This preliminary account is intended to serve as a basis for more systematic and extensive investigations in the future. The origin and preparation of samples. Food organisms: *Crustacea*. Distribution of Copepods in the plankton. Non-crustacean food. Additional organisms of minor importance.

**Suyehiro Y.** - Studies on the Digestive System and the Feeding Habit of the Important Fishes of the North Pacific. I. The Cods, *Gadus macrocephalus* Tilesius and *Theragra chalcogramma* (Pallas) [*De apparatu digestionis et consuetudinibus alimentaribus in quibusdam Piscibus Oceani Pacifici merid. I. Gadus macrocephalus* Tilesius *et Theragra chalcogramma* (Pallas)] (In Jap., Engl. Rés.). 2 figs. 5 tabl., 2 pl., Bull. Jap. Soc. Scient. Fish., III, 1, 8-16. Tokyo (1934). **b - 278**

**Suyehiro Y.** - Studies on the Digestive System and the Feeding Habit of the Important Fishes of the North Pacific. II The Plaice *Lepidopsetta mochigarei* Snyder and the Halibut, *Hippoglossoides elassodon* Jordan and Gilbert [*De apparatu digestionis et consuetudinibus alimentaribus in quibusdam Piscibus Oceani Pacifici merid. II. Lepidopsetta mochigarei* Snyder *et Hippoglossoides elassodon* Jordan *et* Gilbert]. 5 figs., 3 tabl., Bull. Jap. Soc. Scient. Fish., III, 2, 65-72. Tokyo (1934). **b - 279**

**Suzuki M.** - Uber den Darminhalt des Pottwals [*De continentia intestinali speciei « Physeter catodon »*]. Jap. Journ. Med. Sc., II, Biochem., II, 1, 7-9. Tokyo (1933). **b - 280**

Die Farbe des Darminhalts wechselt von gelb zu dunkelbraun. Eine obere Fett-Schicht enthält Cholesterol, von der unter liegenden Flüssigkeit können Gallenpigmente, Gallensalze, Fyrosin und Arginin entzogen werden.

**Valiani Selma** - Contributo allo studio dell'alimentazione dei Pesci: *Trigla lyra* L., *Trigla gurnardus* L. [*Contributio in alimentationem Piscium studendam: Trigla lyra* L., *Trigla gurnardus* L.]. 2 fig., Boll. di Pesca, Piscicolt. e Idrobiol., X, 1, 37-46. Roma (1934). **b - 281**

Caratteristiche somatiche e analisi stomacale del genere *Trigla*, diffusissimo abitante dei nostri mari.

**Yasukawa Y.** - Studies on the Colon *Bacteria* from Oysters [*Bacteria in colon ostrearum*] (In Jap., Engl. Rés.). Bull. Jap. Soc. Scient. Fish., III, 2, 77-79. Tokyo (1934). **b - 282**

### *Respiratio et apparatus respirationis.*

**Bertolini Fausta** - Sulle funzioni dei polmoni acquatici delle Oloturie [*Pulmones aquatici in Holothuriis eorumque functio*]. 4 fig., Pubbl. Staz. Zool. Napoli, XIII, 1, 1-11. Napoli (1933). **b - 283**

L'ossidazione del leucoderivato del blu di metilene dimostra che i polmoni acquatici delle Oloturie hanno funzione respiratoria. L'intestino non ha funzione respiratoria, l'hanno invece verosimilmente i tentacoli boccali, i pedicelli ambulacrali e la cute. L'ossigeno viene assorbito molto lentamente e molto lentamente giunge ai tessuti, secondo quanto doveva attendersi dalla grande lentezza della circolazione messa in evidenza da Enriques. L'ossigeno dal polmone acquatico di destra passa alle reti mirabili e al vaso ventrale destro. Raggiunge solo in un secondo tempo l'intestino e compare nella musculatura che riveste le pareti del corpo. I polmoni acquatici hanno anche funzione idrostatica ed escretrice. Si esclude una loro funzione ematopoietica.

**Campbell J. Argyll** - Whales and Caisson Disease [*Balænæ et morbus capsarum* (*ut dicitur*)]. Nature, CXXXIV, 3390, 629. London (1934). **b - 284**

New theory to explain how the Whales escape caisson disease, i. e. by filling their lungs with sea-water.

**Das B. K.** - The Habits and Structure of *Pseudapocryptes lanceolatus*, a Fish in the First Stages of Structural Adaptation to Aerial Respiration [« *Pseudapocryptes lanceolatus* ». *Agitur de eius consuetudinibus et structura praecipue quoad adaptationem ad respirationem aëriam*]. 2 pl., Proc. R. Soc., CXV, B 795, 422-430. London (1934). **b - 285**

The facts adduced in this paper justify the conclusion that aerial respiration at intervals depending on the temperature is a physiological necessity to *P. lanceolatus* in the conditions under which it lives. It is also clear that the air is absorbed mainly by the lining of the opercular chamber and that this chamber is adapted to this function by a rich vascular supply and by the thinness and elasticity of the opercular bones. Further, there is an adaptation which enables the operculum temporarily to be completely closed.

**Gray R. W.** - Breathing Movements of Whales [*De motibus respiratoriis in Balænis*]. Nature, CXXXIII, 3369, 797-798. London (1934). **b - 286**

The author explains in this letter the mechanism of the breathing movements in different species of Whales.

**Gray R. W.** - Whales and Caisson Disease [*Balænæ et morbus capsarum* (*ut dicitur*)]. Nature, CXXXIV, 3396, 853. London (1934). **b - 287**

Critical note to the theory of Dr. J. Argyll Campbell (See Nature, CXXXIV, 3390,629) . The A. sustains that the whale may avoid diver's paralysis or caisson disease by the « short circuiting » of its pulmonary circulation.

**Koller G. & Meyer H.** - Versuche über die Atmung der Echinodermen [*Inquisitiones in respirationem Echinodermatum*]. Biol. Zentralbl., LIII, 655-661. Leipzig (1933). **b - 288**

**Laurie Alec H.** - Some Aspects of Respiration in Blue and Fin Whales [*De respiratione in speciebus* « *Balænoptera physalus* » *et* « *B. musculus* »] Discovery Rep. (Govmt. of Depend. Falkland Isls.) VII, 363-406, Univ. Press. Cambridge (1933). **b-289**

# PROCREATIO.

## Fecundatio - Physiologia fecundationis - Procreatio - Cellulae et organa sexus - Caracteres sexuales secundarii - Parthenogenesis.

**Allgén Carl** - Einiges über Viviparie bei freilebenden marinen Nematoden [*Nonnulla de viviparitate in Nematodibus marinis liberis*]. Kongel. Norsk. Vidensk. Selsk. Forh., VI, 26, 101-102. Trondheim (1934). **b - 290**

Der Vf. führt als Beispiele mehrere von anderen Vf. Vf. beschriebene Formen an. Laut seiner Ansicht sind die von Schulz (Zool. Jahrb. Syst. LXII, 368-370, 1932) beschriebenen ♀ ♀ einer neuen Art des Genus *Paracanthonchus* (*Cyatholaimus* Schulz), *P. viviparus* nichts anderes als vivipare Vertreter des *Paracanthonchus coecus* (Bastian).

**Burton M.** - Precocious Reproduction in the Sponge *Dictyoclathria* (Bowerbank) [*De reproductione præcoci in Dictyoclathria* (Bowerbank)]. Ann. & Magaz. Natur. Hist., XII, 10th ser., 504-508. London (1933). **b - 291**

**Chemin E.** - Sur le mode de reproduction de *Gymnogongrus Griffithsiæ* Mart. et de quelques espèces du même genre [*De reproductione in specie* « *Gymnogongrus Griffithsiæ* » Mart. *et in speciebus eiusdem generis*]. 8 figs., 2 pl., Bull. Soc. Bot. France, LXXX, 755-770. (1933). **b - 292**

Description d'un cycle évolutif, nouveau pour les Floridées. Après la fécondation les oeufs donnent naissance à un tétrasporophite, qui se développe sur le gamétophyte et produit des spores qui germent et donnent naissance au gamétophite sans aucun stade intermédiaire.

**Clark N. Frances** - Maturity of the California Sardine (*Sardina cærulea*), Determined by Ova Diameter Measurements [*De maturitate speciei californiensis* « *Sardina cerulea* » *ex mensuris diametrorum ovorum determinata*]. 19 figs., 12 tabl., Div. Fish. and Game Calif., Fish Bull., 42, 1-49. Sacramento, Calif. (1934). **b - 293**

A study of the maturity of the California sardine has proved to be a very complicated problem, as the Sardines are seldom taken in a ripe condition. The studies carried on by the California State Fisheries Laboratory has established the number percentage and dates of spawning, lengths at spawning, hydrological conditions during the spawning, effect of spawning on the weights of Sardines, and local differences in spawning, from which it has also been possible to throw light on the migrations.

**Coe W. R.** - Sexual Rhythm in the Pelecypod Mollusk *Teredo* [*De rythmo sexuali in genere « Teredo »*]. Science, LXXX, 2069, 192. New York (1934). **b - 294**

Changes of sex during various breeding seasons.

**Dons Carl** - Zoologiske Notiser XXII. Om vekst og fortplantning hos *Miroserpula inflata*. [*Notæ zoologicæ. XXII. De accretione et fecundatione in Miroserpula inflata*]. 5 fig., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 10, 35-37. Trondheim (1934). **b - 295**

Deposizione delle uova, descrizione, differenti fasi di sviluppo.

**Elsey C. R.** - Factors Influencing the Spawning of the Japanese Oyster, *Ostrea gigas* [*Factores qui influunt in reproductionem ostreæ Japoniæ*]. Ann. Rep. Biol. Board Canada, 1933, 77. Ottawa (1934). **b - 296**

General observations on the usual development of spawn of *O. gigas*. Results of artificial stimulation of the Oysters with sexual products in order to promote spawning.

**Floris G.** - Ricerche sull'*Artemia salina*. Oviparità e schiusa dei Nauplius [*Inquisitiones in speciem « Artemia salina ». De oviparitate et expansione in Naupliis*]. 1 fig., Rend. Sem. Fac. Sc. R. Univ. Cagliari, III, 3, 106-115. Cagliari (1933). **b - 297**

Studi sulle cause e i fattori che promuovono l'oviparità dell'*Artemia salina*. Caratteri delle uova brune. Schiusa delle uova durature e influenza della concentrazione e temperatura dell'acqua salina sulla schiusa delle uova e sulla loro resistenza.

**Föyn Björn** - Lebenszyklus, Cytologie und Sexualität der Chlorophycee *Cladophora Suhriana* Kützing [*Cyclus vitæ, cytologia et sexus in Cladophora Suhriana* K.]. 18 Abb., 5 Taf., Arch. f. Protistenk., LXXXIII, 1, 1-56. Jena (1934). **b - 298**

Material und Technik. Lebenszyklus: Die zygotische Generation, die haploide Generation, die parthenogenetische Generation. Bemerkungen zu der Arbeit von Bruno Schussnig. Die somatische und heterotype Kernteilung bei *Cladophora Suhriana* Kützing. Sexualität: Die Kopulation, der Modus der Geschlechtsbestimmung.

**Föyn Björn** - Lebenszyklus und Sexualität der Chlorophycee *Ulva lactuca* L. [*Cyclus vitæ et sexus in Ulva lactuca* L.]. 13 Abb., Arch. f. Protistenk., LXXXIII, 1, 154-177. Jena (1934). **b - 299**

Lebenszyklus: Die Sporophytgeneration. Die Gametophytgeneration. Die parthenogenetische Generation. Die Verdoppelung der Chromosomenzahl bei haploiden Individuen. Der Modus der Geschlechtsbestimmung.

**Frade F. & Manaças S.** - Sur l'état de maturité des gonades chez le thon rouge génétique [*De maturitate gonadum in thynno rubro gamico*]. C. R. Assoc. Anatom. Vingt-huitième Réunion (Lisbonne, 10-12 Avril) (Trav. Stat. Biol. Marit. de Lisbonne, N. 33) (1933). **b - 300**

**Gregory Beryl D.** - On the Life-History of *Gymnogongrus Griffithsiæ* Mart. and *Ahnfeltia plicata* Fries [*De cyclo vitali specierum « Gymnogongrus Griffithsiæ » Mart. et « Ahnfeltia plicata » Fries*]. Journ. Linn. Soc. Bot., XLIX, 531-551. London (1934). **b - 301**

Discussion on the problem as to the parasitism of *Actinococcus* and *Stereocolax*. Detailed description of the reproduction in *G. Griffithsiae* and *A. plicata* from which it is shown that *Actinococcus aggregatus* is the sexual biont of *G. Griffithsiae*, and *Stereocolax decipiens* is an integral part of *A. plicata*.

**Gross Fabius** - Zur Biologie und Entwicklungsgeschichte von *Noctiluca miliaris* [*De biologia et progressu in Noctiluca miliari*]. 6 Abb., 1 Taf., Arch. f. Protistenk., LXXXIII, 1, 162-196. Jena (1934). **b - 302**

Kulturmethode. Nahrungsaufnahme. Gametenkopulation. Die Entwicklung der Zygoten: Versuche mit erhöhter Wasserstoffionenkonzentration des Kulturmediums. Die intracelluläre Wasserstoffionenkonzentration.

**Hämmerling Joachim** - Ueber die Geschlechtsverhältnisse von *Acetabularia mediterranea* und *Acetabularia Wettsteinii* [*Sexus condiciones in Acetabularia mediterranea et A. Wettsteinii*]. 3 Abb., Arch. f. Protistenk., LXXXIII, 1, 57-97. Jena (1934). **b - 303**

Einleitung. Die Herkunft des Materials. Die Cystenbildung. Die Gametenbildung. Die Kopulation. Kopulationsbedingende Faktoren. Die Geschlechtsverteilung. Das Geschlecht der von einer Cyste gebildeten Gameten. Der Zeitpunkt der Geschlechtsbestimmung. Die Geschlechtsverteilung der einzelnen Pflanzen im ganzen betrachtet. Die Art der Geschlechtsbestimmung. Kreuzungsversuche zwischen *mediterranea* Rovigno × Neapel und *Wettsteinii* × *mediterranea*. Vergleich mit anderen Anschauungen und Objekten.

**Hartmann M.** - Untersuchungen über die Sexualität von *Ectocarpus siliculosus* [*Inquisitiones in sexum speciei « Ectocarpus siliculosus »*]. 4 Abb., 10 Tab., Arch. f. Protistenk., LXXXIII, 1, 110-153. Jena (1934). **b - 304**

Material, Untersuchungsmethoden und Kultur. Die Getrenntgeschlechtlichkeit (Diözie) von *Ectocarpus siliculosus*. Kopulationsbedingende Faktoren. Die verschiedene Stärke der männlichen und weiblichen Gametensorten. Relative Sexualität. Die Art der Geschlechtsbestimmung von *Ectocarpus*. Zur Kritik der relativen Sexualität.

**Herpin R.** - La reproduction de l'Annélide polychète *Leptonereis glauca* Claparède serait-elle parthénogénétique ? [*Num reproductio speciei « Leptonereis glauca » est parthenogenetica ?*]. Bull. Biol., LXVIII, 289. Paris (1933). **b - 305**

**Hoadley Leigh** - Pulsations in the *Nereis* Egg. [*Pulsus in ovo Nereidis*]. 1 fig., 1 table, Biol. Bull., LXVII, 3, 484-493. Lancaster, Pa. (1934). **b - 306**

After insemination the egg of *Nereis* shows a series of deformations which are continuous and which decrease in extent up to the time of the second cleavage. These are masked periodically by more general changes in the physical state of the entire cytoplasm of the egg, as described by Heilbrunn, so that they appear to occur in waves.

**Jyengar M. O. P.** - On the Formation of Gametes in a *Caulerpa* [*De formatione gametorum in quadam Caulerpa*]. Journ. Ind. Bot. Soc., XII, 325. Madras (1933). **b - 307**

Description of biciliated swar-spores found in large numbers in *Caulerpa racemosa* var. *uvifera*.

**Kanda Tiyoiti** - Ueber die Gametophyten einiger Laminariaceen [*De gametophytis aliquarum Laminariacearum*] (In Jap.). 18 Abb., 2

Taf., Rep. Stat. Algal Res., Hokkaido Imp. Univ. 1, 18-39. (1933). **b - 308**

Beobachtungen über den Generationswechsel der *Laminaria japonica*, *Arthrothamnus bifidus* und *Costaria Turneri*.

**Labbé Alphonse** - L'énigmatique glande péniale des Silicodermés [*De ænigmatica glandula in pene Silicodermatum*]. C. R. Acad. Sc., CXCVIII, 22, 1941-1942. Paris (1934). **b - 309**

Chez les Silicodermés, le pénis est bien morphologiquement un pénis, mais, physiologiquement, n'est qu'un organe excitateur, lorsque la glande péniale existe et a pris la fonction d'organe éjaculateur.

**Le Gall Jean & Priol E. P.** - Observations sur la ponte de la sardine du Nord du Golfe de Gascogne et de La Manche [*Observationes de reproductione in sardina ad Sinum Vasconicum et Fretum Britannicum pertinente*]. 8 fig., Rev. Trav. Off. Pêches Marit., VI, 3, 229-248. Paris (1933). **b - 310**

Résumé des travaux de recherches sur la ponte de la sardine du Golfe de Gascogne. Considérations biométriques et biologiques sur les Sardines reproductrices de la côte Ouest de Bretagne : Echantillons examinés (taille, âge, croissance observée, sexe et maturité sexuelle, moyenne vertébrale). Considérations sur l'état hydrologique constaté sur les frayères des Sardines du Nord du Golfe de Gascogne et de la Manche. Annexe : Liste des stations océanographiques faites au large de la côte du Finistère.

**Legendre R.** - Les rythmes lunaires des animaux marins [*De rythmo lunari in animalibus marinis*]. 3 fig., Rev. Météorol. Méd., 2, 13-20. (1934). **b - 311**

L'A. a fait une série de pêches, de nuit, au moyen d'une lanterne flottante à acétylène. Dans ce travail il se borne aux manifestations de la ponte, aux essaimages, aux danses nuptiales et aux rythmes lunaires des Polychètes et des Crustacés recueillis.

De ses propres observations et de celles d'auteurs précédents il conclut qu'il existe chez de nombreux êtres marins une périodicité qui porte essentiellement sur les fonctions génitales et qui se trouve synchrone des mouvements de la lune.

**McGinitie G. E.** - The Egg-laying Activities of the Sea Hare, *Tethys californicus* (Cooper) [*De ovorum depositione in specie « Tethys californicus »* (Cooper)]. 1 table, Biol. Bull., LXVII, 2, 300-303. Lancaster, Pa. (1934). **b - 312**

The present account adds more information as to what actually may be accomplished in one season by a marine animal.

Calculation of total length of the egg string ; average number of capsules per centimeter, number of eggs contained in a capsule, total number of eggs laid. Mechanism of fertilisation and egg-laying.

**McKay Hayden Hazel** - The Life-history of *Pterygophora californica* Ruprecht [*De cyclo vitali in specie « Pterygophora californica »* Ruprecht]. 7 pl., Univ. Calif. Publ. Bot., XVII, 6, 111-148. Berkeley, Calif. (1933). **b - 313**

This paper presents an account of the life history of this species based upon both morphological and cytological data, giving special attention to the development and behavior of the male gametes and to the process of fertilization.

**Meyer P. F.** - Ein Beitrag zur Eiablage der Nordseekrabbe (Granat) *Crangon vulgaris* Fabr. [*Contributio in studium ovorum depositionis in specie « Crangon vulgaris »* Fabr.]. Zool. Anz., CVI, 7/8, 145-157. Leipzig (1934). **b - 314**

Beschreibung der im Aquarium beobachteten verschiedenen Stadien der Eiablage sowie der ausgeschlüpften Eier und deren Nahrungsaufnahme.

**Monné L.** - Untersuchungen über die Spermatogenese von Cephalopoden (*Octopus vulgaris* Lm. und *O. Defilippi* Ver.) und Erwägungen über die morphologische Bedeutung verschiedener Plasmabestandteile [*Inquisitiones in spermatogenesim Cephalopodorum* (*Octopus vulgaris* Lm. *et O. Defilippi* Ver.) *et considerationes de momento morphologico aliquorum elementorum plasma constituentium*] (Pol. Text). Kosmos, 58, 225-242. Lwow, Pol. (1933). **b - 315**

**Ohshima Hiroshi & Ikeda Hayato** - Male-female Superposition of the Sea-Star *Archaster typicus* Müll. & Trosch. [*Masculus foeminae superpositus in specie « Archaster typicus »*]. 1 fig., Proc. Imp. Acad., X, 2, 125-128. Tokyo (1934). **b - 316**

Notes on the peculiar habit of superposing of the male on top of the female, at the different periods of the tide. Some few exceptions to this typical case. The position assumed by the two individuals superposed. Explanation of this act that recalls the copulation and similar records among Echinoderms.

**Ohshima Hirohi & Ikeda Hayato** - Sexual Size-dimorphism in the Sea-star *Archaster typicus* Müll. & Trosch. [*De dimorphismo sexuali in dimensionibus speciei « Archaster typicus »* Müll. *et* Trosch.]. 4 tabl., 2 graphs, Proc. Imp. Acad., X, 3, 180-183. Tokyo (1934). **b - 317**

Careful measurements show that there exists a sexual dimorphism in size in this sea-star. This fact is worth noting as the first instance of the sexual size-dimorphism among the *Asteroidea*. Other examples of sexual dimorphism hitherto known from among Echinoderms.

**Philbert M.** - Note sur les gonothèques femelles de *Diphasia pinaster* (Ell. et Sol.) et de *Diphasia pinnata* (Pallas) [*De gonothecis foemineis in speciebus « Diphasia pinaster » et « D. pinnata »*]. 2 pl., Bull. Inst. Océanogr., 647, 1-8. Monaco (1934). **b - 318**

Description détaillée et comparaison des gonothèques de ces deux espèces.

**Ranzi Silvio** - Sui rapporti tra fegato e gestazione nei Selaci [*De correlationibus inter iecur et prægnationem in Selachioideis*] 4 fig., Acta Pont. Acad. Sc. Novi Lyncaei, LXXXVII, sess. I, 100-112. Roma (1933-34). **b - 319**

In *Torpedo ocellata*, *Acanthias blainvillei*, *Mustelus vulgaris* e *Trygon violacea* il fegato diminuisce nel corso della gestazione. La riduzione del fegato è proporzionale alla quantità di sostanze organiche che dalla madre sono fornite agli embrioni ; quindi è a un dipresso proporzionale alla quantità di sostanze organiche presenti nel liquido uterino e alla velocità di accrescimento degli embrioni. Il fegato materno funziona quale serbatoio di sostanze organiche destinate all'embrione.

**Rodolico Antonino** - Differenziamento dei sessi ed ovo-spermatogenesi nell'anguilla (Ricerche istologiche e sperimentali) [*De sexuum differentiatione deque ovospermatogenesi in anguilla. Inquisitiones histologicae et experimentales*]. 10 ill., Pubbl. Staz. Zool. Napoli, XIII, 2, 180-278. Napoli (1934). **b - 320**

I corpi genitali delle ceche. Differenziamento dei sessi nelle Anguille. Ovogenesi e spermatogenesi. Tentativi di maturazione artificiale dei corpi genitali dell'anguilla.

**Rosenberg T.** - Zur Anatomie und Entwicklungsgeschichte von *Dasya arbuscula* [*De anatomia et accretionis historia speciei « Dasya arbuscula »*]. 2 Abb., Bot. Notiser, 535-542. Lund (1933). **b - 321**

Anatomie und Erzeugungsorgane dieser Art.

**Roughley T. C.** - The Australian Oyster [*De Ostrea australiana*]. Nature, CXXXIV, 3376, 66. London (1934). **b - 322**

Correction of an error made in referring to the temperature of the water when Oysters spawned at Port Macquarie, New South Wales, in an abstract of the author's paper entitled « The Life History of the Australian Oyster, *Ostrea commercialis* » (Nature, CXXXIII, 332).

**Schmit W.** - Ueber die Laichplätze von Kabeljau im Beringmeere und Morphologie der Larven vom Still-ozeanischen Kabeljau [*De locis in quibus fit reproductio speciei « Gadus callarias macrocephalus »* Til. *in Mari* Bering *et de morphologia larvarum in Oceano Pacifico*]. (Russ. Text, dtsch. Rés.). 1 Karte, 5 Abb., Bull. Far East. Branch Acad. Sc., U. S. S. R., 1/2/3, 79-86. Vladivostok (1933). **b - 323**

Ergebnisse der Bearbeitung des Materials der wissenschaftlichen Trawlerexpeditionen des Still-Ozeanischen Wissenschaftlichen Forschungsinstituts für Fischereiwirtschaft nach dem Beringmeere in 1932. Morphologischer Vergleich zwischen den Larven und Eiern des stillozeanischen und des atlantischen Kabeljaus. Verbreitung der Laichgebiete von *G. callarias macrocephalus* im Beringmeere. Bestätigung einer Trennung der verschiedenen Laichstellen untereinander, was wahrscheinlich zur Bildung verschiedener Rassen von Kabeljau geführt hat. Hydrologische Charakteristika der betreffenden Laichgebiete.

**Stephenson Anne** - The Breeding of Reef Animals. Part 2 : Invertebrates other than Corals [*De procreatione in animalibus in scopulis viventibus. Pars 2ª : Invertebrata (Corallis exceptis)*]. Great Barrier Reef Exped., 1928-29, Scient. Rep., III, 9, 247-272. British Mus. (Natur. Hist.). London (1934). **b - 324**

**Stephenson T. A. & A.** - Growth and Asexual Reproduction in Corals [*De accretione et reproductione asexuali in Corallis*]. Great Barrier Reef Exped., 1928-1929, Scient Rep., III, 7, Brit. Mus. (Natur. Hist.). London (1933). **b - 325**

**Steven G. A.** - Observations on the Growth of the Claspers and Cloaca in *Raia clavata* Linnaeus [*Observationes ed accretione organi copulationis et cloacæ in R. c.*]. Journ. Mar. Biol. Assoc., XIX, 2, 887-889. Plymouth (1934). **b - 326**

The present investigation was undertaken in order to discover whether or not there exists an external feature from which could be deduced with reasonable accuracy in a live fish her state of sexual development. Practical applications of the rapid identification of mature fish.

**Takahasi Sadae** - On the Epitocous Phase of the Nereid, *Perinereis nuntia* var. *brevicirris* Grube [*De epitochia in varietate « Perinereis nuntia brevicirris »* Grube]. 1 pl., Ann. Zool. Jap., XIV, 2, 203-209. Tokyo (1933). **b - 327**

Morphology and habits.

**Templeman W.** - Lobster Hatching [*De reproductione in Homaro*]. Ann. Rep. Biol. Board Canada, 1933, 37-38. Ottawa (1934). **b - 328**

Results of observations on berried lobster females showing that the time of hatching with contemporary variations in temperature and food during the larval period may have a profound influence on the survival of resulting larvae.

**Vladykov V. D.** - Data on Occurrence and Spawning of Fishes on Outer Nova Scotia Coast [*De præsentia et reproductione Piscium in litoribus extremis Novæ Scotiæ*]. Ann. Rep. Biol. Board Canada, 1933, 40-41. Ottawa (1934). **b - 329**

Elaboration of data collected during 1932 and 1933 allowing to establish the time of spawning by examination of ovaries of specimens captured. Account of several southern forms captured along the outer coast of Nova Scotia during recent years.

**Waterman A. J.** - Observations on Reproduction, Prematuration, and Fertilization in *Sabellaria vulgaris* [*Observationes de reproductione, præmaturitate, fecundatione in specie « Sabellaria vulgaris »*]. 4 figs., 1 pl., Biol. Bull., LXVII, 1, 97-114. Lancaster, Pa. (1934). **b - 330**

The early development of *S. vulgaris*, a polychaete annelid inhabiting sand tubes on dead *Echinarachnius* and other shells in *Bryozoa* nodules, and on stones, is described from the time of the separation of the ova from the ovaries to the early cleavage stages, with special reference to longevity of the gametes, fertilization reaction and the relation of the first cleavage plane to the sperm entrance point and to the position of the polar bodies. A comparison is made with the development of *S. alveolata* as described by Fauré-Fremiet.

# PROGRESSUS EMBRYONALIS ET ACCRETIO CORPORIS.

## Embryologia - Accretio larvalis - Metamorphosis - Accretio corporis.

**Bazikalova A.** - Age and Rate of Growth of *Pecten jessoensis* Say [*De ætate et rapiditate accretionis in specie « Pecten jessoensis »* Say] (In Russ., Engl. Rés.). 2 figs., 4 tabl., Bull. Acad. Sc. U. R. S. S., Cl. Sc. Mathém. et Natur., 2/3, 389-394. Léningrad (1934). **b - 331**

Description of a new method for determining the age and rate of growth of *P. jessoensis* in order to be able to apply it in future to other bivalve Mollusks having many additional rings on their shells, which prevent from determining their age by the year-rings. Author points out that the rate of growth of *P. jessoensis* is influenced by the environment and varies in relation to the different months.

**Berkeley Needler Alfreda** - Larvae of Some British Columbia *Hippolytidæ* [*Hippolytidæ. De larvis in Columbia Britannica*]. 1 fig., Contr. Canad. Biol. & Fish., VIII, 18, 237-242. Toronto (1934).

(—) See Rés. in : Ann. Rep. Biol. Board Canada, 1933, 92. Ottawa (1934). **b - 332**

The paper deals with the first stage larvae of *Spirontocaris paludicola*, *S. tridens*, *S. herdmani*, *S. brevirostris* and *Hippolyte californiensis* hatched out in the laboratory. The larva of *Spirontocaris paludicola* is described and figured in some detail and the others are dealt with more briefly.

**Blair A. A.** - Effect of Food and Temperature on Growth of Salmon Fry [*Effectus alimentationis et temperaturæ in accretionem larvarum Salmonis*]. Ann. Rep. Biol. Board Canada, 1933, 15-16. Ottawa (1934). **b - 333**

Study on the causes of variations in the size on young salmon fry from different rivers and from different brooks of the same river, with especial reference to the effect of food and temperature of the rate of growth. The results obtained have a preliminary character.

**Burton M.** - Observations on Post-larval Sponges of the Genus *Suberites* [*Observationes de stadiis post-larvalibus generis « Suberites »*]. Ann. & Magaz. Natur. Hist., 10th ser., XIII, 312-317. London (1934). **b - 334**

**Campbell Mildred H.** - The Life History and Post Embryonic Development of the Copepods, *Calanus tonsus* Brady and *Euchæta japonica* Marukawa [*De cyclo vitali et progressu post-embryonali in speciebus « Calanus tonsus »* Brady *et « Euchaeta japonica »* Marukawa]. 18 figs., Journ. Biol. Board Canada, I, 1, 1-65. Toronto (1934). **b - 335**

The development of *Calanus tonsus* is characterized by a distinct metamorphosis and the six nauplius and six copepodid stages are described. The life cycle extends over one year and breeding occurs in the spring at the surface of the water. *Euchaeta japonica* undergoes a metamorphosis similar to that of *C. tonsus*. The twelve stages are described. There is no definite spawning period but reproduction occurs throughout the year in deep water where development proceeds. The nauplii differ from those of *C. tonsus*.

**Cox Philip** - Age Determination of Canadian Mackerel [*De ætatis determinatione in scombro canadensi*]. 2 tabl., Ann. Rep. Biol. Board Canada, 1933, 18-19. Ottawa (1934). **b - 336**

Results, given in two tables, of age-analysis, using the scales, of mackerel obtained at the Magdalen Islands, Gulf of St. Lawrence in 1925 and on the outer Nova Scotian coast in 1921-22.

**Day J. H.** - Development of *Scolecolepis fuliginosa* (Claparède) [*De progressione in specie « Scolecolepis fuliginosa »* (Claparède)]. 16 figs., Journ. Mar. Biol. Assoc., XIX, 2, 633-654. Plymouth (1934). **b - 337**

The development of *S. fuliginosa* is described from the egg to the young worm for the first time. A description is given of the histological structure of a ciliated pit which arises in early larval existence and disappears at metamorphosis. The structure of the glandular region of the pygidium is also described. The larva has three pairs of eyes, the third pair disappearing in the young worm long after metamorphosis is otherwise complete.

**Day J. H. & Wilson Douglas P.** - On the Relation of the Substratum to the Metamorphosis of *Scolecolepis fuliginosa* (Claparède) [*Correlatio inter substratum et metamorphosim in specie « Scolecolepis fuliginosa »*]. Journ. Mar. Biol. Assoc., XIX, 2, 655-662. Plymouth (1934). **b - 338**

Laboratory experiments indicate that larvae of *S. fuliginosa* when ready to metamorphose, are able, if necessary, to postpone metamorphosis until a substratum suitable for adult life is reached, meanwhile continuing to swim and grow for a period that may be as long as several weeks.

**De Gaetani D.** - Nuovo contributo alla conoscenza dello sviluppo post-embrionale di *Physiculus Dalwigki* Kp. [*Contributio nova in progressum post-embryonalem cognoscendum in specie « Physiculus Dalwigki »* Kp.]. 1 tav., Mem. R. Comit. Talassogr. Ital., No. CCIV, 3-8. Venezia (1933). **b - 339**

L'A. descrive un esemplare di *Physiculus* pescato nello Stretto di Messina, e che per i suoi caratteri più salienti permette di formare un collegamento tra una larva allevata dall'uovo e uno stadio più avanzato,e già conosciuto, di *Physiculus Dalwigki* Kp.

**De Gaetani D.** - Uova, sviluppo embrionale e stadi post-embrionali negli Sparidi. 2. *Pagellus centrodontus* De La Roche [*Sparidæ. 2. De ovis, progressu embryonali et stadiis post-embryonalibus in specie « Pagellus centrodontus »* De La Roche]. 1 tav., Mem. R. Comit. Talassogr. Ital., No. CCIX, 1-20. Venezia (1934). **b - 340**

Si fanno conoscere le uova e lo sviluppo embrionale del *Pagellus centrodontus* De La Roche, nonchè i caratteri di sviluppo di una serie di stadi post-embrionali da mm. 3,80 a mm. 30,08.

**Desbrosses Pierre** - Contribution à la connaissance de la biologie du Rouget-Barbet en Atlantique Nord, *Mullus barbatus* (Rond.) *surmuletus* Fage mode septentrional Fage [*Contributio in cognoscendam biologiam speciei « Mullus barbatus surmuletus » oceani Atlantici*]. 11 fig., 5 tabl., Rev. Trav. Off. Pêches Marit., VI, 3, 249-270. Paris (1933). **b - 341**

Valeur commerciale, l'espèce et les variétés du rouget-barbet, son habitat. Dans le présent ouvrage, dans le but de compléter les connaissances sur le rouget-barbet, sont illustrées les caractéristiques suivantes de ce poisson : la croissance et la longévité, l'âge et la taille à la première maturité sexuelle, la variation du nombre des vertèbres. En même temps on a dressé l'inventaire du stock en Atlantique Nord pendant l'hiver 1932-1933.

**Elsey C. R.** - The Growth of Japanese and Native Oysters [*De accretione in ostreis japoniis et nativis*]. Ann. Rep. Biol. Board Canada, 1933, 76-77. Ottawa (1934). **b - 342**

Results of further studies on the seasonal rates of growth of Japanese and native Oysters carried on at the Pacific Biological Station at Nanaimo, B. C.

**Foerster R. E.** - Variation in Size of Sockeye Salmon Eggs During Development [*De variatione dimensionum ovorum in specie « Oncorhynchus nerka »* Walb. *progressione perdurante*]. Ann. Rep. Biol. Board Canada, 1933, 82. Ottawa (1934). **b - 343**

Account of a study made of the size of sockeye eggs at various periods during development to determine, primarily, whether any appreciable increase occurred. Description of the two methods of measurement used and results obtained.

**Foerster R. E.** - An Investigation of the Life History and Propagation of the Sockeye Salmon (*Oncorhynchus nerka*) at Cultus Lake, British Columbia. No. 4 [*Inquisitiones in cyclum vitale et propagationem speciei « Oncorhynchus nerka » in* Cultus Lake, *Columbia Britannica. 4. De cyclo vitali*]. 2 figs., 2 tabl., Contr. Canad. Biol. & Fish., VIII, 27, 345-355. Toronto (1934). **b - 344**

Eggs spawned naturally by 3,883 females in 1925 were estimated as amounting to 17,470,000. Approximately 12,500 fry (0.07 % of eggs) migrated to sea in 1926 ; 183,272 yearlings (1.05 %) in 1927, and 1,722 two-year-olds (0.01 %) in 1928, making 1.13 % in all. Returning fish consisted of no three year ($3_2$ group), 4,463 four-year ($4_2$ group), and 1,112 five-year fish (no $5_2$ group, all being of the $5_3$ group). None of the fish was reported returning to other spawning areas.

**Foxon G. E. H.** - Notes on the Swimming Methods and Habits of Certain Crustacean Larvae [*Natatio consuetudinesque aliquarum larvarum Crustaceorum*]. 7 figs., Journ. Mar. Biol. Assoc., XIX, 2, 829-849. Plymouth (1934). **b - 345**

The swimming methods of the larvae: *Munida banffica, Caridea, Astacura, Anomura, Thalassinidea, Brachyura.* The relation of the larva to its environment: orientation to light and to gravity. Speed of swimming. The relation of the larva to other stages of the life-history.

**Fridriksson Arni** - On the Calculation of Age-Distribution within a Stock of Cod by Means of Relatively Few Age-determinations as a Key to Measurements on a Large Scale [*De calculanda distributione œtatis in turma specie «Gadus morrhua» composita, ad misurationes amplissime ducendas*]. 3 figs., 2 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer (Scient. Rep. North-Western Area Comm. 1930-1932), LXXXV, 1-14. Copenhague (1934). **b - 346**

Introductory remarks on different methods applied. A combination of two methods. Necessity of using the diagrams correctly. Age-determination on a comparatively small number of fish, serving as a key to measurements on a large scale. An example of the application of the above method of investigations. Discussion of the method.

**Fridriksson Arni, Hansen M. Paul, Bruun Fr. Anton & Tåning Vedel Å.** - Report concerning the Analysis of Cod Otoliths from Iceland [*Relatio de analysi otolithorum speciei «Gadus morrhua» in Islandia*]. 2 figs., 14 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer (Scient. Rep. North-Western Area Comm. 1930-1932), LXXXVI, 1-14. Copenhague (1934). **b - 347**

The use of otoliths in stock analyses of cod must be considered as of remarkable value, but the present investigation has shown, nevertheless, that a more penetrating study of ring formation in otoliths is necessary in the Iceland-Greenland waters, with their greatly contrasting natural conditions, in order to remove as many shortcomings as possible. The investigation has given rise to a number of proposals, which, if carried out, would bring these age-analyses on to a firmer and more certain basis. The work is followed by an appendix: List of otolith determinations.

**Giltay Louis** - Notes ichthyologiques. VIII. Les larves de Schindler sont-elles des *Hemirhamphidœ*? [*Notœ ichthyologicœ. VIII. Num larvœ Schindlerii ad familiam Hermirhamphidarum pertinent* ?]. 4 fig., Bull. Mus. R. Hist. Natur. Belgique, X, 13, 1-10. Bruxelles (1934). **b - 348**

Discussion au sujet de deux larves de Téléostéens décrites par Schindler, d'après laquelle l'A. arrive à la conclusion qu'elles appartiennent à un genre nouveau autonome: *Schindleria*, qu'il range provisoirement dans une famille nouvelle qu'il appelle: *Schindleridae.*

**Goodrich E. S.** - Nephridia of *Amphioxus* [*Nephridia in genere «Amphioxus»*]. Quart. Journ. Microscop. Sc., LXXVI, 499-510 & 655-764. London (1934). **b - 349**

Account of the development of the unpaired anterior nephridium and of the paired nephridia of *Amphioxus.* The author's conclusions support the idea that the nephridia of *Amphioxus* are true protonephridia, homologous with the protonephridia of the Invertebrates.

**Gopala Aiyar R.** - Development of *Salmacis bicolor* Agassiz [*De progressione speciei «Salmacis bicolor»* Agassiz]. 1 fig., Nature, CXXXIV, 3397, 899-900. London (1934). **b - 350**

First complete account on the development of *S. bicolor* from the insemination of the egg until the adult.

**Grave B. H.** - Rate of Growth, Age at Sexual Maturity, and Duration of Life of Certain Sessile Organisms, at Woods Hole, Massachusetts [*De rythmo accretionis, maturitate sexuali, spatio vitœ aliquorum organismorum sessilium in* Woods Hole, Mass.]. 4 tabl., Biol. Bull., LXV, 3, 375-386. Lancaster, Pa. (1933). **b - 351**

In this paper the discussion of each species (*Balanus eberneus, Hydroides hexagonis, Teredo navalis, Bugula flabellata, Botryllus gouldii, Cumingia tellinoides, Chaetopleura apiculata*) has been stated in the briefest possible form because the A. is here interested only in the outstanding facts of their life histories including the limits of the breeding seasons, rate of growth, duration of life, and number of generations per year.

**Gurney Robert** - The Development of *Rhincalanus* [*De progressione in genere «Rhincalanus»*]. Discovery Rep. (Govmt. Depend. Falkland Isls.), IX, 207-214. Univ. Press. Cambridge (1934). **b - 352**

**Hanaoka Kin-Ichro** - Notes on the Early Development of a Stalked *Medusa* [*Notœ de progressionis prioribus stadiis in quadam Medusa pedunculata*]. 8 figs., Proc. Imp. Acad., X, 2, 117-120. Tokyo (1934). **b - 353**

The A. has studied the development of the Medusa, *Thaumatoscyphus distinctus*, from the spawning to the planula.

**Hart J. L.** - The Early Life-history of Crabs [*De progressionis prioribus stadiis in cancro*]. Ann. Rep. Biol. Board Canada, 1933, 84. Ottawa (1934). **b - 354**

Summary of the results of a study of the larval stages of Crabs i. e. twelve species of Crabs and hermit Crabs.

**Hart J. L.** - A Report of the Investigation of the Life-history of the British Columbia Pilchard [*Inquisitiones in cyclum vitale speciei «Sardinops coerulea» ex Columbia Britannica*]. 8 figs., 2 tabl., Rep. Comm. Fish. 1933, App., 60-70. Victoria, B. C. (1934). **b - 355**

Importance of the study of the life-history to the fish in order to be able to discover just what factors are principally involved in controlling its abundance. Results of a study of the life-history of *S. coerulea* concerned with changes in lengths, vertebra number, body-form, proportions of sexes, and food.

**Henbest Lloyd G.** - A New Term for the Youthful Stage of Foraminiferal Shells [*Vocabulum quiddam novum ad stadium juvenile concharum Foraminiferorum nominandum*]. Science, LXXIX, 2051, 363-364. New York (1934). **b - 356**

The A. proposes the new name «juvenarium» for the early stage of shell-building which precedes the adult idiomorphology. The other terms used.

**Hildebrand F. Samuel & Cable Louella E.** - Reproduction and Development of Whitings or Kingfishes, Drums, Spot, Croaker, and Weakfishes or Sea Trouts, Family *Sciœnidœ*, of the Atlantic Coast of the United States [*De reproductione et progressione in speciebus «Menticirrhus americanus», «M. saxatilis» et «M. littoralis», «Stellifer lanceolatus», «Larimus fasciatus», «Cynoscion nebulosus», «C. regalis» et «C. nothus», in familia «Sciaenidae» litorum Oceani Atlantici ad Americœ Provincias Foederatas pertinentium*]. 44 figs., 5 tabl., Bull. Bureau Fish., XLVIII, 16, 1-117. Washington, D. C. (1934). **b - 357**

Artificial keys to the eggs and young so far as known forming a sort of summary of the present state of knowledge of the characters of the eggs and young of the *Sciaenidae* of the Atlantic coast of U. S. A. For every species are given spawning, descriptions of the young and growth.

**Huus Johan** - Zur morphologisch-systematischen und biologischen Kenntnis der nordischen *Munida*-Larven (*Crustacea Decapoda*) [*Studium morphologicum, systematicum et biologicum larvarum speciei septentrionalis* « *Munida* »]. 6 Abb., 4 Tab. a. T., Bergens Mus. Årb., Naturv. r., H. 1, 8, 1-29. Bergen (1934). **b - 358**

I. Morphologisch-systematischer Teil: Stadien der *Munida*-Larven und ihre Unterscheidung. Unterscheidung der *tenuimana*- und der *Sarsi*- Larven. Die Larven von *Munida bamffia* (Pennant.). II. Biologischer Teil. Dauer der Larvenstadien. Dauer des postlarvalen Stadiums. In welchen Tiefen leben die *Munida*-Larven? Photo- und Geotaxien der Larven und des postlarvalen Stadiums. Ausbreitungsmöglichkeiten der *Munida*-Larven.

**Inoh Shunpei** - Keimentwicklung von *Pelvetia Wrightii* Yendo [*De progressione in specie* « *Pelvetia Wrightii* » Yendo]. (Jap. Text). 2 Abb., Mitt. aus d. Inst. f. Algenforsch. wiss. Fak. Hokkaido kaiserl. Univ., I, 11-17. (1933). **b - 359**

**Johnson Martin W.** - The Life History of the Copepod *Tortanus discaudatus* (Thompson & Scott) [*De cyclo vitali in specie* « *Tortanus discaudatus* » (Thompson & Scott)]. 4 pl., 2 tabl., Biol. Bull., LXVII, 1, 182-200. Lancaster, Pa. (1934). **b - 360**

Identification of the pelagic eggs of *T. discaudatus* is established by hatching larvae from eggs occurring in the plankton and also from eggs definitely known to have been spawned by the species in experimental cultures.

A description is given of the development of the specialized flotation case containing the egg. The nauplius stages I-VI are described and figured. The copepodid stages I-V are described and figures given. The nauplius larva has a remote resemblance to the nauplius larvae of *Acartia longiremis* and *A. bifilosa*.

**Johnson Martin W.** - The Developmental Stages of the Copepod *Epilabidocera amphitrites* McMurrich [*De progressione eiusque stadiis in specie* « *Epilabidocera amphitrites* » McMurrich]. 2 tabl., 3 pl., Biol. Bull., LXVII, 3, 466-483. Lancaster, Pa. (1934). **b - 361**

Six nauplius stages and six copepodid stages are described in detail in this paper.

**Komai Taku** - Notes on Semper's Larvae Found in the Vicinity of Seto [*Notæ de larvis Semperii apud* Seto *repertis*]. 4 figs., 1 pl., Ann. Zool. Jap., XIV, 1, 67-77. Tokyo (Contr. Seto Mar. Biol. Labor. N. 36). (1933). **b - 362**

This report deals with: *Zoanthella*, *Zoanthina* and *Trachanthina bicincta*, n. g., n. sp.

**Konopacki M.** - Histophysiologie du développement de *Loligo vulgaris* [*De progressione eiusque physiologia in specie* « *Loligo vulgaris* »]. Bull. Int. Acad. Pol., B II, 1/5, 51-70. Cracovie (1933). **b - 363**

**Kraińska M. K.** - Recherches sur le développement d'*Eupagurus prideauxi* Leach. 1. Segmentation et gastrulation [*Inquisitiones in progressionem speciei* « *Eupagurus prideauxi* » Leach. *1. De segmentatione et gastrulatione*]. 3 fig., 1 pl., Bull. Int. Acad. Pol. Sc. et Lett., Cl. Sc. Mathém. et Natur. Sér. B: Sc. Natur. (II), 3/4, B. II, 149-165. Cracovie (1934). **b - 364**

La segmentation de l'oeuf d'*Eupagurus* est du type superficiel, mais à un certain stade elle se rapproche du type total.

**Kunieda Hiroshi** - On the Life-history of *Monostroma* [*De cyclo vitali in genere* « *Monostroma* »]. 12 figs., Proc. Imp. Acad., X, 2, 103-106. Tokyo (1934). **b - 365**

In the present paper the A. describes briefly the development of the zygote and the formation of the zoospores in the genus *Monostroma* and compares its development with those of *Ulva* and *Enteromorpha*.

**Lebour Marie V.** - Larval *Crustacea* (*Decapoda* and *Stomatopoda*). Expedition S. A. R. Prince Leopold of Belgium, Duke of Brabant, to the Extreme East (1932) [*De Crustaceis larvalibus* (*Decapodis et Stomatopodis*) *ex expeditione a* S. A. R. *Principe Leopoldo* de Belgique *in regiones orientis extremi* (*a. 1932*) *perfecta*]. 19 figs., Bull. Mus. R. Hist. Natur. Belgique, X, 8, 1-24. Bruxelles (1934). **b - 366**

The collection contained one *Squilla* larva, one crab zoea, some pagurid larvae, several crab megalopae, and one young *Galathea*. In the present report each larva is figured, described briefly and placed as near as possible in the group to which it belongs.

**Lebour Marie V.** - Rissoid Larvae as Food of the Young Herring. The Eggs and Larvae of the Plymouth *Rissoidæ* [*Rissoidæ. Larvæ ac alimentum aringorum juvenum. De ovis et larvis in* Plymouth]. 4 pl., Journ. Mar. Biol. Assoc., XIX, 2, 523-539. Plymouth (1934). **b - 367**

It is now proved that the larva which the Herrings eat is *Rissoa Sarsii* Lovén.

List of the known Plymouth *Rissoidae*. Discussion on their classification. Distinguishable characteristics of the larval *Rissoidae*. Description of the following species: *Rissoa membranacea*, *R. parva*, *R. Guerini*, *R. incospicua*, *R. Sarsii*, *Cingula semistriata*, *C. semicostata*, *Alvania punctura*, *Barleeia unifasciata*.

**Lebour Marie V.** - The Eggs and Larvae of some British *Turridæ* [*Turridæ anglicæ. De ovis et larvis*]. 4 pl., Journ. Mar. Biol. Assoc., XIX, 2, 541. Plymouth (1934). **b - 368**

Description of the eggs and larvae of the Plymouth planktonic forms: *Haedropleura septangularis*, *Lora rufa* v. *ulideana*, *Mangelia attenuata*, *M. coarctata*, *M. nebula*, *Philbertia gracilis*, *Ph. linearis*, *Ph. leufroyi*, *Ph. asperrima*, *Ph. purpurea*, *Ph. teres*.

**Ma Ting Ying H.** - On the Seasonal Change of Growth in a Reef Coral, *Favia speciosa* (Dana), and the Water-temperature of the Japanese Seas during the Latest Geological Times [*De accretione eiusque variationibus pro anni tempore in Favia speciosa* (Dana). *De aquæ temperatura marium japonensium novissimis ætatibus geologicis*]. 10 figs., Proc. Imp. Acad., X, 6, 353-356. Tokyo (1934). **b - 369**

The measurements taken from the Corals derived from the raised coral reef of Tateyama and from those of the Ryûkyû limestone of Amami-o-sima as well as from the recent ones on the same island reveal hardly difference in their length of annual growth. The phenomenon is of profound significance as it indicates that the water temperature of Tateyama during the building of the raised coral reef was closely similar to that of the present northermost limit of distribution of the living coral reef.

**Maxia C.** - Scambi di acqua in cellule viventi [*De cellulis viventibus ac aquæ permutatione*]. Atti Soc. Ital. Progr. Sc. (XXI Riun., Roma 9-15 ott. 1932), III, 244-247. Roma (1933). **b - 370**

Ricerche su uova vergini e fecondate di *Paracentrotus lividus*, su uova di *Artemia salina* e di *Cyprinodon calaritanus*. Formule di Lillie e di McCutcheon e Lucké per il valore d'imbibizione e di permeabilità.

**McFarlane C.** - Observations on the Annual Growth of *Ascophyllum nodosum* [*Observationes de accretione annua in specie « Ascophyllum nodosum »*]. Proc. Nova-Scotian Inst. Sc., 18, 27-33. (1933). **b - 371**

**McKay Donald C. G.** - The Life-history of the Edible Crab [*De cyclo vitali in cancro eduli*]. Ann. Rep. Biol. Board Canada, 1933, 87. Ottawa (1934). **b - 372**

Some information of the life-history of the edible crab of importance for an adequate understanding of the fishery of the same.

**Moore H. B.** - The Rate of Growth of *Balanus* [*De accretione eiusque rythmo in genere « Balanus ».*] Scott. Natural., 208, 101-109. Edinburgh (1934). **b - 373**

**Myers Earl H.** - The Life-history of *Patellina corrugata*, a *Foraminifera* [*De cyclo vitali speciei « Patellina corrugata »*]. Science, LXXIX, 2054, 436-437. New York (1934). **b - 374**

Account of the life cycle of *P. corrugata* Williamson based on permanent cytological preparations and photographs of living organisms. In this life cycle there is a regular alternation of generations: the asexual or microspheric generation and the sexual or megalospheric generation.

**Nicholls A. G.** - The Developmental Stages of *Euchæta norvegica*, Boeck [*De progressione eiusque stadiis in specie « Euchaeta norvegica » Boeck*]. 8 figs., 9 tabl., Proc. R. Soc. Edinburgh, 1933-1934, LIV, Part I, 4, 31-50. Edinburgh (1934). **b - 375**

The nauplii and their appendages are described in tabular form, and illustrated. The appendages of the copepodite stages are dealt with separately and described in a series of tables. The growth and development of *Euchaeta* and *Calanus* are compared. A table shows the definitive point by which any copepodite stage of *Euchaeta* may be identified without dissection.

**Okamura K. & Ôshima K.** - Life-history of *Coccophora langsdorffii* (Turn). Grev. [*De cyclo vitali in specie « Coccophora langsdorffii » (Turn.) Grev.*]. 10 figs., Bot. Magaz., XLVII, 555, 187-194. Tokyo (1933). **b - 376**

*Coccophora* may be considered as a descendant of *Sargassum microceratium* (Mert.) J. Ag. the « *Phyllamphora* » form showing the ancestral character of *Sargassum*.

**Pritchard A. L.** - Size of Eggs of Pink Salmon (*Oncorhynchus gorbuscha*) [*De dimensionibus ovorum in specie « Oncorhynchus gorbuscha »*]. 1 table, Ann. Rep. Biol. Board Canada, 1933, 95. Ottawa (1934). **b - 377**

Brief summary of the readings obtained from the weekly measurements of twenty sets of ten eggs and of the weekly counts of thirty-two ounces of the same eggs from the time when they were received at McClinton creek approximately eight hours after fertilization until they reached the eyed stage. It results from the investigation that pink salmon eggs do not change in size during development from fertilization to eyeing.

**Raja Maria** - Sull'accrescimento post-embrionale del *Loligo vulgaris* (Nota preventiva). [*De accretione post-embryonali in specie « Loligo vulgaris ». Nota prior*]. Boll. Zool., V, 1, 1-5. Napoli (1934). **b - 378**

Comportamento dei diversi organi del *Loligo vulgaris* Lam. nel corso dell'accrescimento post-embrionale, attraverso l'esame di 218 esemplari, raccolti nel periodo dal luglio 1932 al gennaio 1933. I dati raccolti riguardano il peso dei singoli organi in rapporto al peso totale del corpo.

**Ranzi Silvio** - Risultati di ricerche sull'accrescimento embrionale [*Resultatus ex inquisitionibus de accretione embryonali*]. Arch. Sc. Biol., (XIV Congr. Int. Fisiol., Roma, 29 ag.-3 sett. 1932), XVIII, 1-4, 296. Napoli (1933). **b - 379**

L'A. esamina la questione della provenienza delle sostanze minerali destinate a formare il corpo dell'embrione. Pone in evidenza come nell'uovo di *Sepia officinalis* preesista solo un quarto delle sostanze minerali, che si osservano nel piccolo al momento della schiusa, e come gli altri tre quarti di queste sostanze siano, in ultima analisi, prese dall'ambiente. Lo studio è svolto sui Selaci che offrono: specie che depongono le uova nell'ambiente, specie che le trattengono nell'utero senza che tra l'embrione e l'utero si stabiliscano rapporti anatomici, e specie infine munite di placenta.

**Ranzi Silvio** - Ipotesi sulle basi fisico-chimiche dell'accrescimento embrionale [*Hypothesis de fundamentis physico-chimicis quoad accretionem embryonalem*]. Atti Soc. Ital. Progr. Sc., (XXI Riun., Roma 9-15 ott. 1932), III, 146-147. Roma (1933). **b - 380**

Processi fisico-chimici che caratterizzano lo sviluppo di numerose specie di Selaci e di *Sepia officinalis*.

**Ranzi Silvio** - Risultati di ricerche sulle basi fisio-morfologiche dello sviluppo embrionale dei Selaci [*Resultatus ex inquisitionibus in fundamenta physico-morphologica accretionis embryonalis in Selachioideis*]. Atti Soc. Ital. Progr. Sc., (XXI Riun., Roma, 9-15 ott. 1932), III, 147. Roma (1933). **b - 381**

**Ranzi Silvio** - I leucociti dell'utero dei Selaci come elaboratori di lipidi destinati all'embrione [*De leucocytis uterinis in Selachioideïs consideratis ac elaboratoribus lipidum in embryonem destinatorum*]. Atti Soc. Ital. Progr. Sc., (XXII Riun., Bari, 12-18 ott. 1933), III, 53-54. Roma (1934). **b - 382**

Ricerche di fisiologia embrionale eseguite in *Torpedo ocellata*, *T. marmorata*, *Acanthias blainvillei*, *R. vulgaris*, *Scymnus lichia*, *Centrophorus granulosus* e *Trygon violacea*.

**Ranzi Silvio** - Sui rapporti tra accrescimento embrionale e composizione del liquido uterino nei Selaci [*De correlationibus inter accretionem embryonalem et compositionem liquidi uterini in Selachioideis*]. Boll. Soc. Ital. Biol. Sper., VIII, 6, 1137-1140. Napoli (1933). **b - 383**

L'accrescimento degli embrioni è funzione dell'alimento che la madre può loro fornire. A diversi aspetti istofisologici delle pareti uterine corrispondono diverse percentuali di sostanze organiche nel liquido uterino, quindi diverse velocità di accrescimento degli embrioni.

**Ranzi Silvio** - Ricerche istofisiologiche e fisiologiche sui rapporti degli embrioni di Selaci con la madre [*Inquisitiones istophysiologicæ et physiologicæ circa correlationes embryonum in Selachioideis cum matre*]. Monit. Zool. Ital. (Atti Soc. Ital.

Anat., IV Conv. Pavia 16-19 ott. 1932), XLIII, suppl., 232-234. Firenze (1933). **b - 384**

Accrescimento degli embrioni e variazioni delle sostanze organiche, determinate quale differenza tra il peso secco e il peso delle ceneri, studiati in varie specie di Selaci. Studio dell'istofisiologia delle pareti uterine.

**Reverberi G.** - Esperimenti di incrocio fra uova di *Ciona intestinalis* e spermi di *Phallusia mamillata* [*Mixturæ ad experimentum ductæ inter ova Cionæ intestinalis et sperma Phallusiæ mamillatæ*].Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis., Matem. e Natur., XVII, 9, 737-739. Roma (1933). **b - 385**

Vennero tentate esperienze di incrocio eterogeneo tra uova di *Ciona intestinalis* con spermi di *Phallusia mamillata*. Tali uova sono capaci di svilupparsi; fenomeni più appariscenti sono: espulsione di globuli polari, segmentazione normale, blastulazione e gastrulazione. Accanto a questi fenomeni normali si notano asincronie di sviluppo e divisioni nucleari non seguite da divisione citoplasmatica.

**Reverberi G.** - Studi sperimentali sull'uovo di Ascidie. II: La segmentazione dei blastomeri isolati dell'uovo di *Ciona* e di *Phallusia* [*De ovo Ascidiarum. Studium ad experimentum perfectum. II. Agitur de seiunctis blastomeris specierum* « *Ciona* » *et* « *Phallusia* » *deque eorum segmentatione*]. 7 fig., Pubbl. Staz. Zool. Napoli, XII, 3, 385-406. Napoli (1933). **b - 386**

Segmentazione normale dell'uovo e dei blastomeri isolati. Determinazione dei piani di segmentazione. Segmentazione dei due blastomeri isolati allo stadio di 2 blastomeri, dei quattro blastomeri isolati allo stadio di 4 blastomeri, degli otto 1/8 allo stadio di 8 blastomeri, dei 2/4 anteriori o posteriori destri o sinistri dell'uovo allo stadio di 4 blastomeri, dei 4/8 dell'uovo. Sviluppo ulteriore delle forme derivate dai blastomeri.

**Rollefsen Gunnar** - Torsken og Fiskehavet 1933. (The Cod and the Sea in 1933) 2. Skreiens alder [*De aetate maturitatis in specie* « *Gadus callarias* »]. (In Norw., Engl. Rés.). 1 fig., 1 table on pl., Fiskerid. Skr. Ser. Havunders (Rep. Norw. Fish. Mar. Invest., IV, 7), 12-14. Bergen (1934). **b - 387**

The otoliths as organs preferable for age-determination. The age-composition of the spawning cod in 1932 and '33. Evidence of some important oceanographical and meteorological factors having the same influence on the Norwegian as on the Icelandic cod.

**Roughley T. C.** - The Life History of the Australian Oyster, *Ostrea commercialis* [*De cyclo vitali in specie* « *Ostrea commercialis* » *australiensi*]. 2 figs., 18 pl., Proc. Linn. Soc. New South Wales, LVIII, 3/4, 279-333. Sydney (1933). **b - 388**

Relationship of the gonad to the digestive system and other organs. Development of spermatogonia, spermatocytes and spermatozoa, and ova. The embryos and the larvae.

**Salfi Mario** - Sulla metamorfosi dell'*Uranoscopus scaber* L. [*De metamorphosi in specie* « *Uranoscopus scaber* »]. 8 ill., Pubbl. Staz. Zool. Napoli, 2, 303-310. Napoli (1934). **b - 389**

L'A. illustra gli stadi giovanili di *Uranoscopus scaber* riferendosi ai caratteri presentati dalla struttura esterna.

**Sanzo Luigi** - Uova e primi stadi larvali di Alalonga (*Orcynus germo* Ltkn.) [*De ovis et prioribus stadiis larvalibus in specie* « *Orcynus germo* » Ltkn.]. 1 tav., Mem. R. Comit. Talassogr. Ital., No. CXCVIII, 1-10. Venezia (1933). **b - 390**

Sono descritte le uova pelagiche di *Orcynus germo* Ltkn. ed è seguito lo sviluppo embrionale e quello delle larve fino al loro 7° giorno di vita.

**Sanzo Luigi** - Uova, larve e stadi giovanili di *Seriola Dumerilii* Risso [*De ovis, larvis et stadiis juvenilibus in specie* « *Seriola Dumerilii* » Risso]. 1 tav., Mem. R. Comit. Talassogr. Ital., No. CCV, 3-14. Venezia (1933). **b - 391**

**Sanzo Luigi** - Uova, stadi larvali e giovanili di *Dactylopterus volitans* L. [*De ovis, stadiis larvalibus et juvenilibus speciei* « *Dactylopterus volitans* » L.]. 1 tav., Mem. R. Comit. Talassogr. Ital., No. CCVII, 1-26. Venezia (1934). **b - 392**

Si fanno conoscere di *Dactylopterus volitans* le uova pelagiche, lo sviluppo embrionale, i primi stadi larvali e la serie di sviluppo fino all'adulto.

**Schindler Otto** - Beiträge zur Kenntnis der Niere mariner Fischlarven [*Contributio ad renes larvarum Piscium marinorum cognoscendos*]. 8 Abb., Sitz. ber. Akad. Wiss., Wien, Abt. 1, CXLIII, 8/10, 265-283. Wien (1934). **b - 393**

Der Bau der Niere einer Reihe von marinen Fischlarven wird hier untersucht um Vergleichspunkte zur Niere der neuen Art *Hemiramphus* (*Schindleria*) *praematurus* zu erhalten. Feststellung einer sehr grossen Aehnlichkeit zwischen der Niere von Fischlarven und derjenigen der herangewachsenen Art *Hemiramphus praematurus*.

**Schmidt-Nielsen S., Aas G., Astad A. & Leonardsen R.** - On the Compostion of the Eggs of *Rajidæ* [*Rajidæ. De compositione ovorum*]. 2 tabl., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 39, 150-153. Trondheim (1934). **b - 394**

Chemical analysis of the purses of *Raja oxyrhynchus* and *R. batis*. No great difference in the composition of the content of the mature egg purses of these two *Batoidei* but remarkable difference in the composition of the white and the yolk. The freezing point depression of the two liquids. Comparison with the hen's egg.

**Schultz Leonard P.** - The Age and Growth of *Atherinops affinis oregonia* Jordan & Snyder and of other Subspecies of Baysmelt along the Pacific Coast of the United States [*Aetas et accretio in subspecie* « *Atherinops affinis oregonia* » *et in aliis subspeciebus quæ vivunt præter litora Americana Oceani Pacifici*]. 11 figs., 2 pl., 6 tabl., Univ. Wash. Publ. in Biol., II, 3, 45-102. Seattle, Wash. (1933). **b - 395**

This study of the life history of *Atherinops* was based on: the length frequencies as a foundation for age determinations; the number of annuli, their time of formation and appearance, and the length of specimens calculated at the time of formation of the annuli; the relationship between the length of the fish and its weight; the percentages of fish reaching sexual maturity in each age group; a comparison of the various features in the life history from Central Oregon to San Diego, California.

**Schulz E.** - Problematisches über das Larven-Stadium von *Halicryptus spinulosus* v. Sieb. (*Sipunculoidea*) [*De larvis speciei* « *Halicryptus spinulosus* » *earumque problematis*]. Zool. Anz., CV, 59-61. Leipzig (1933). **b - 396**

**Scofield Eugene C.** - Early Life History of the California Sardine (*Sardina caerulea*) with special Reference to the Distribution of the Eggs

and Larvae [*De prioribus stadiis progressionis in Sardina caerulea californiensi. Agitur particulatim de distributione ovorum et larvarum*]. 23 figs., tabl., Div. Fish and Game Calif., Fish Bull., 41, 1-48. Sacramento, Calif. (1934). **b - 397**

The present work is the result of an intensive investigation from April 1929 to September 1932. Location of the major spawning area. Location of the Sardine larvae. Food of the larvae and adult Sardines. Description of the sardine egg and larva. Methods of investigation.

**Spartà A.** - Uova e larve di *Gobidæ*. I. *Gobius paganellus* L. [*Gobidæ I. De ovis et larvis in specie « Gobius paganellus »* L.] 1 tav., Mem. R. Comit. Talassogr. Ital., No. CCXI, 1-10. Venezia (1934). **b - 398**

Si fanno conoscere le uova e le larve fino al 7° giorno della schiusa di *Gobius paganellus* L.

**Stevenson J. A.** - Growth of the Giant Scallop (*Placopecten grandis*) [*De accretione in specie « Placopecten grandis »*]. Ann. Rep. Biol. Board Canada, 1933, 36-37. Ottawa (1934). **b - 399**

Results of the continuation of the work begun in 1932 on the growth of the scallop, as shown by the « rings of growth » on the empty shells. Some conclusions concerned with the growth-rate of *P. grandis*. Observations concerned with the development of the larvae studied at intervals and with the effect of temperature upon them.

**Stolfi G.** - L'accrescimento embrionale del *Loligo vulgaris* [*De accretione embryonali in specie « Loligo vulgaris »*]. Atti R. Accad. Naz. Lincei, Rend. Cl. Sc. Fis., Matem. e Natur., XVIII, 11, 516-519. Roma (1933). **b - 400**

L'A. ha studiato le variazioni di acqua e sostanze minerali nel corso dello sviluppo delle uova di *Loligo vulgaris* Lam. Egli ha potuto stabilire che l'acqua e le sostanze minerali di cui l'embrione si arricchisce nel corso dello sviluppo vengono prese dall'ambiente (acqua di mare) e non dagli involucri dell'uovo.

**Sund Oscar** - Cod-measurements during 21 Years on the Western and Northern Coasts of Norway. Methods and Results [*De mensuris in specie « Gadus morrhua » per 21 annos perfectis præter litora occid. et sept. Norvegiæ. Rationes et resultatus*]. 13 figs., 6 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer (Scient. Rep. North - Eastern Area Comm., 1934), LXXXVIII, 1-20. Copenhague (1934). **b - 401**

I. Some remarks on the measurements of fish. II. The numerical treatment and the graphical presentation of the Norwegian cod measurements. III. The Norwegian cod fisheries in 1933. IV. The fluctuations of the Arcto-Norwegian cod stock from 1913 to 1933.

**Tattersall W. M. & Sheppard E. M.** - Observations on the *Bipinnaria* of the Asteroid Genus *Luidia* [*Observationes de Bipinnariis ad genus « Luidia » pertinentibus*]. 8 figs., James Johnstone Mem. Vol., 35-61. Liverpool (1934). **b - 402**

The present paper, based on living specimens of larvae of *Bipinnaria asterigera*, enables the authors to add to the knowledge of these larvae in several particulars, and to elucidate some obscure and disputed points. The chief new contributions in this paper are (1) the more accurate discrimination of the two species of *Bipinnaria* larvae, corresponding to the two known European species of *Luidia*, (2) the description of a very perfect ciliary feeding mechanism in the larvae, (3) an account of the process of metamorphosis, showing that this process is quite distinct in the two species, (4) some notes on hitherto overlooked points, and (5) an account of the peculiar and unique method of locomotion of the larvae.

**Tchakhotine S.** - Una funzione specifica della glicolisi nei processi morfogenetici delle uova del riccio di mare [*De præcipua quadam functione glycolitica in processibus morphogeneticis ovorum echini*] Boll. Soc. Ital. Biol. Sper., VIII, 4, 623-626. Napoli (1933). **b - 403**

Azione inibitrice specifica dell'acido monobromo-acetico sulle uova fecondate di riccio di mare in corso di sviluppo. A concentrazione m/100 e m/1000 la gastrulazione non avviene, ma si ha uno sviluppo eccezionale del mesenchima ; a concentrazioni forti (m/100) le blastule si disfanno in un ammasso di cellule sferiche che si disperdono e in seguito si citolizzano ; in concentrazioni più deboli si ha una così impetuosa proliferazione di cellule mesenchimatiche da far scoppiare la larva. Valore di queste osservazioni per la questione della genesi del cancro.

**Tester A. L.** - The Age and Growth of Herring in British Columbia [*De ætate et accretione aringi in Columbia Britannica*]. 1 fig., Rep. Comm. Fish., 1933, App., 71-73. Victoria, B. C. (1934). **b - 404**

Method of age estimation. Age composition of the runs. Seasonal variation in age composition. The age at which herring become mature and enter the commercial fishery. Rate of growth. A comparison of the Southern and Northern runs.

**Thorson Gunnar** - Treaarsexpeditionen til Christian den X's Land 1931-34 under Ledelse of Lauge Kock. On the Reproduction and Larval Stages of the Brittle-Stars *Ophiocten sericeum* (Forbes) and *Ophiura robusta* Ayres in East Greenland [*De expeditione tres annos ducta ad Terram Regis Christiani X a. 1931-34 Duce* Lauge Kock. *De reproductione et stadiis larvalibus in speciebus « Ophiocten sericeum »* (Forbes) *et « Ophiura robusta »* Ayres *in Groënlandia orientali*]. 11 figs., 3 pl., Medd. om Grønland, C, 4, 1-20. København (1934). **b - 405**

Description of the *Ophiopluteus* of the two mentioned species : typical form and deviations from the type. The maturity. The periods of spawning.

**Uchida Tohru** - Metamorphosis of a *Scyphomedusa* (*Pelagia panopyra*) [*De metamorphosi in Pelagia panopyra*]. 4 figs., Proc. Imp. Acad., X, 7, 428-430. Tokyo (1934). **b - 406**

The A. reports in this paper the metamorphosis of *P. panopyra* from the ephyra to the adult.

**Vlès F. & Gex M.** - Sur la structure des spectres ultraviolets de l'oeuf d'oursin [*De spectris ultraviolaceis ovorum Echini eorumque structura*]. 8 fig., Bull. Inst. Océanogr., 658, 1-23. Monaco (1934). **b - 407**

Les facteurs physiques dans la microspectrophotométrie. Le spectre de l'oeuf d'oursin : oeuf d'oursin vierge normal ; cytolyse de l'oeuf d'oursin.

**White H. C.** - Verifying Scale Method of Determining Age of Salmon Parr. [*Inspectio rationis ætatis juvenum salmonum determinandæ. Inspectionis fundamenta ponuntur in mensura squamarum*]. Ann. Rep. Biol. Board Canada, 1933, 42. Ottawa (1934). **b - 408**

Results of observations on salmon in Cumberland County,

N. S., showing that parr from certain streams had relatively larger eyes than parr from other. After examining a number of specimens, taking particular note of the relative size of the eye, the author established that with a few exceptions the ages of parr may be adjudged without scale reading or actual measurements.

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« **Stazione Zoologica di Napoli** » - Fauna e Flora del Golfo di Napoli. 38ª Monografia : Uova, larve e stadi giovanili di Teleostei [*De fauna et flora Sinus Neapolitani. Monographia XXXVIIIª : Ova, larvæ, stadia juvenilia Teleosteorum*]. (Monografia elaborata con l'uso del materiale raccolto e seriato da Salvatore Lo Bianco, 2ª puntata). 86 fig., 18 tav., 177-384 pp., Tip. Ed. G. Bardi, R. Friedländer. Roma-Berlin (1933). **b - 409**

Lo studio del vasto materiale è svolto da vari AA. : U. d'Ancona : *Synentognathi, Gadidae, Selenichthyes, Berycoidei, Thoracostei, Autostomi.* L. Sanzo : *Macruridae.* A. Spartà : *Trachypteridae, Regalicidae.* S. Ranzi : *Lophotidae, Sparidae, Lobotidae.* F. Bertolini : *Apogonidae, Serranidae.* G. Montalenti : *Maenidae.*

## PATHOLOGIA ET TERATOLOGIA.

**Adam W.** - Notes sur les Céphalopodes. IV. La variation de la radule chez *Sepiola atlantica* d'Orbigny 1839 [*Notæ de Cephalopodis. IV. De radulæ variatione in S. a.*]. 3 fig., Bull. Mus. R. Hist. Natur. Belgique, X, 24, 1-4. Bruxelles (1934). **b - 410**

Différentes manières de variations de la radule. Variations qui peuvent se manifester chez de différents spécimens de la même espèce. Parmi trente radules de *Sepiola atlantica* examinées par l'A. trois diffèrent de la radule normale. Description de ces formes anormales.

**Blackburn Kathleen B.** - Wasting Disease of *Zostera marina* [*Morbus destructor in Zostera marina*]. 1 fig., Nature, CXXXIV, 3393, 738. London (1934). **b - 411**

From the study of the chromosomes of the two species, *Zostera marina* and *Z. nana*, it is suggested that the narrow-leaved form of *Z. marina* is not originated from a cross with the smaller species *Z. nana*. The A. sustains that the differences may be ecological.

**Bonsinceano Aurélie** - Sur un cas de monstre double incomplet chez *Squalus acanthias* Risso [*Monstrum duplex incompletum in specie « Squalus acanthias »*]. 4 fig., Ann. Scient. Univ. Jassy, XIX, 1/4, 339-344. Jassy (1934). **b - 412**

Description d'une anomalie intéressante présentée par un embryon de *S. acanthias*. Il s'agit d'un monstre double seulement dans la partie antérieure, la région de soudure ayant lieu à partir du niveau des yeux. Discussion au sujet de l'origine de ces anomalies.

**D'Ancona U.** - Le anomalie delle pinne pettorali nei Selacei Batoidei [*De pinnis pectoralibus in Selachioideis Batoideis. Quæstio de anomaliis*]. Atti R. Accad. Fisiocr. Siena e Studi Fac. Med. Sen., ser. XI, I, 1, 70-72. Siena (1933). **b - 413**

**D' Ancona Umberto** - Alcuni esemplari anomali di Batoidei Adriatici [*Batoidei Maris Hadriatici. Quædam specimina anomala*]. 5 fig., 1 tav., Thalassia, I, 3, 3-13. Venezia (1933). **b - 414**

Descrizione di esemplari mostruosi di *Myliobatis aquila*, *Myliobatis sp.*, e *Raja alba.* Ipotesi che si tratti di formazioni anomale non dipendenti da alterazioni di sviluppo prodotte da cause esterne, bensì da vere mutazioni. (Vedi anche in : Mem. R. Comit. Talassogr. Ital. Nº CCII, 1933).

**Duff D. C. B.** - Furunculosis [*De furunculosi*]. Ann. Rep. Biol. Board Canada, 1932, 82. Ottawa (1933). **b - 415**

Account of the studies continued at the University of British Columbia on the bacterium isolated in August, 1931, from the victims of the Elk river epizootic, Rocky Mountain whitefish. The organism has been found to conform in all cultural and biochemical characteristics with *Bacillus salmonicida* Emmerich and Weibel : record on the tests on the pathogenicity of strains obtained from dead hybrid Pacific salmon kept in a retaining pond at Cultus lake and resembling *Bacillus salmonicida.* Result of studies on the possibility of furunculosis bacillus being transferred on trout eggs.

**Fish Frederic F.** - A Fungus Disease in Fishes of the Gulf of Maine [*Morbus piscium, mycetis cuiusdam causa, in* Gulf of Maine]. 2 figs., 1 pl., Parasitol., XXVI, 1, 1-16. London (1934). **b - 416**

A fungus disease of epidemic proportions was found in the common sea Herring (*Clupea harengus*). The fungus was also found to infect the common winter flounder (*Pseudopleuronectes americanus*) and the Alewife (*Pomobolus pseudoharengus*). The causative agent proved to be a species of fungus belonging to the genus *Ishthyosporidium* Caullery and Mesnil (1905). The specific name is tentatively accepted as *hoferi* Plehn and Muslow (1911). Life cycle, morphology, pathology, epidemiology, culture of the parasite.

**Früchtl Fritz** - Beitrag zur Kenntnis der Missbildungen adriatischer Planktoncopepoden [*Contributio in studendas anomalias Copepodorum planctonicorum Maris Hadriatici*]. Anz. Akad. Wiss., Math.-Naturw. Kl., LXXI, 13, 139-140. Wien (1934). **b - 417**

Kurzer Bericht über das Werk. 13 neue Fälle von Missbildungen beobachtet an 10 Copepodenarten. Eine Tabelle gibt die qualitative und quantitative Verbreitung der am Copepodenmaterial der dritten Virchow-Fahrt (Juli-August 1911) beobachteten Missbildungen wieder.

**Früchtl Fritz** - Beitrag zur Kenntnis der Missbildungen adriatischer Planktoncopepoden [*Contributio in Copepoda planctonica anomala cognoscenda in Hadriatico*]. 7 Abb., 1 Tab., Sitz. Ber. Akad. Wiss., Abt. 1, CXLIII, 5/7, 147-157. Wien (1934). **b - 418**

Eingehende Beschreibung der Missbildungen und Versuche zur Erklärung derselben, Tabelle ihrer qualitativen und quantitativen Verbreitung. *Calanus minor* (Claus), *Calocalanus styliremis* Giesbrecht, *Clausocalanus arcuicornis* (Dana), *Aetidius giesbrechti* Cleve, *Temora longicornis* (Müller), *Acartia*

*(Acartiura) clausi* Giesbrecht, *Sapphirina nigromaculata* Claus, *Corycaeus (Ditrichocorycaeus) brehmi* Steuer, *Corycaeus (Onychocorycaeus) catus* F. Dahl und *Corycaeus (Agetus) typicus* Kröyer.

**Gibbons N. E.** - Investigation of Fish Diseases [*Inquisitiones in morbos Piscium*]. Ann. Rep. Biol. Board Canada, 1932, 56. Ottawa (1933). **b - 419**

Results of investigation conducted on an epidemic disease among trout and salmon fry, which could not be reproduced in other fry, when inoculated with the various organisms. On culturing no bacteria was found which would reproduce the condition. From the symptom of the sick fish, furunculosis was suspected, but no organism resembling *B. salmonicida* was isolated.

**Gudger E. W.** - Ambicoloration in the Winter Flounder, *Pseudopleuronectes americanus*. I. Incomplete Ambicoloration without Other Deformity ; II. Complete Ambicoloration with a Hooked Dorsal Fin and with the Rotating Eye just over the Dorsal Ridge [*Quæstio de ambicoloratione in specie « Pseudopleuronectes americanus ». I. De ambicoloratione incompleta sine alia deformitate. II. De ambicoloratione completa cum pinna dorsali instar unci et cum oculo mobili in linea spinae dorsalis*]. 4 figs., Amer. Mus. Novit., 717, 1-8. New York (1934). **b - 420**

Two abnormal specimens in the collections of the Department of Ichthyology of the American Museum are figured, described and briefly discussed.

**Hess Ernest** - « Finrot » in Salmon Fry [*Morbus « finrot » (ut dicitur) in larvis salmonis*]. Ann. Rep. Biol. Board Canada, 1932, 58. Ottawa (1933). **b - 421**

Account of inoculation experiments with strains of pure cultures of bacteria isolated from infected salmon fry ; it seems that the causative agent of « finrot » could not be isolated, or, if isolated, must have lost its virulence during prolonged culture on artificial media.

**Hess Ernest** - Eelgrass Disease [*De morbo in Zostera marina* L.]. Ann. Rep. Biol. Board Canada, 1933, 56. Ottawa (1934). **b - 422**

Results of a study of pure culture of bacterial strains isolated from samples of eelgrass suspected of being diseased ; impossibility of finding bacteria by direct examination of stained and unstained tissue preparations from freshly collected samples.

**Kuitunen-Ekbaum E.** - The Occurrence of Dracontiasis in Pacific Coastal Fishes [*De dracontiasi in piscibus ad litora Oceani Pacifici pertinentibus*]. Ann. Rep. Biol. Board Canada, 1932, 90. Ottawa (1933). **b - 423**

Description of two cases of dracontiasis of which one has been observed in *Platichthys stellatus* from Departure Bay, infected by *Philometra sanguinea*, which has been also reported from *Lepidopsetta bilineata*, *Rhodymenichthys dolichogaster* and *Caularchus meandricus*. The second case was in sockeye salmon caught from English bay infected with a new species of a dracunculoid nematode, *Philomena oncorhynchi* n. gen., n. sp.

**Ladreyt F.** - Sarcome chondroblastique et glycogénèse sarcomateuse chez *Scyllium canicula* L. [*Sarcoma chondroblasticum et glycogenesis sarcomatosa in specie « Scyllium canicula »*]. Bull. Inst. Océanogr., 645, 1-16. Monaco (1934). **b - 424**

**Mounce Irene** - Eelgrass Disease [*De morbo in Zostera marina* L.]. Ann. Rep. Biol. Board Canada, 1933, 29-30. Ottawa (1934). **b - 425**

Account of the sudden and almost complete disappearance of eelgrass from the Atlantic coast due to an unknown disease ; description of the symptomes of the disease. Some preliminary work done in order to elaborate a method of obtaining sterile plants for inoculation tests, which remained without success.

**Mounce Irene & Diehl Wm. W.** - A New *Ophiobolus* on Eelgrass [*Ophiobolus halimus n. sp. in Zostera marina*]. 9 figs., Canad. Journ. Res., XI, 1, 31 ; XI, 2, 242-246. Ottawa (1934). **b - 426**

*Ophiobulus halimus* Diehl and Mounce n. sp. is reported on *Zostera marina* L. from St. Andrews, N. B. It was collected on rhizomes and fertile shoots, and developed in leaves kept in sea water in the laboratory. The fungus is described, illustrated and compared with related species.

**Ninni E.** - Mostruosità in un *Sargus vulgaris* (Geof.) e in un' *Anguilla vulgaris* (Flem.) [*Monstrum in specie « Sargus vulgaris » et in Anguilla vulgari*]. 2 fig., Boll. Pesca, Piscicolt. e Idrobiol., IX, 1, 108-112. Roma (1933). **b - 427**

L'A. descrive e illustra un'anomalia di sviluppo della regione codale in un esemplare di *Sargus vulgaris*, e una deformità in un esemplare di *Anguilla vulgaris* il quale presenta superiormente sette gibbosità compresa quella della coda. Nel primo caso si tratta probabilmente di deformità di origine traumatica, nel secondo di deficienza di sviluppo del sistema osseo.

**Okada Yaichiro** - Abnormalities in *Ceratium hirundinella* found in Hokkaidô, Japan [*De anomaliis in specie « Ceratium hirundinella » collecta in* Hokkaidô, *Japonia*]. 1 fig., Ann. Zool. Jap., XIV, 2, 191-192. Tokyo (1933). **b - 428**

Description of two specimens with abnormal horns.

**Petersen Henning E.** - Wasting Disease of Eelgrass (*Zostera marina*) [*Morbus destructor in Zostera marina*]. Nature, CXXXIV, 3378. 143-144. London (1934). **b - 429**

The A. gives further details concerning this disease and the fungus that is the cause of it.

**Raabe Henryk** - La dégénérescence du rein des Céphalopodes, provoquée par un ascomycète [*Renis degeneratio in Cephalopodis per Ascomycetem*]. 9 fig., Bull. Inst. Océanogr., 640, 1-8. Monaco (1934). **b - 430**

Pénétration du champignon dans les reins. Les différents stades de l'infection.

**Raphaël Claudette** - Sur un cas de bifurcation postérieure chez *Glycera convoluta* [*Bifurcum posterius in specie « Glycera convoluta »*]. 3 fig., Stat. Trav. Biol. Roscoff, 11, 19-25. Paris (1933). **b - 431**

Description d'un individu de *G. convoluta* qui présentait une bifurcation de la région caudale. Interprétation de cette anomalie.

**Renn Charles E.** - Wasting Disease of *Zostera* in American Waters [*Morbus destructor in Zostera aquarum americanarum*]. 1 fig., Nature, CXXXIV, 3385, 416. London (1934). **b - 432**

In searching the possible causes of the total disappearance of *Zostera marina* from the Atlantic American coast and from the western coast of Europe, the A. has found within the air spaces and in cells of the diseased leaves an organism that appears to be a mycetozoan very similar to the genus *Labyrinthula*.

**Renouf Louis P. W.** - *Zostera* Disease on the Coast of County Cork, I. F. S. [*De morbo in Zostera ex litoribus* County Cork, I. F. S.]. Nature, CXXXIII, 3372, 912. London (1934). **b - 433**

Some observations as to the beginning, spreading and recovery of the disease of *Zostera marina* and *Z. nana*.

**Robson G. C.** - Notes on the *Cephalopoda*. XVIII. On a Remarkable Form of Radula in the Genus *Graneledone* [*Notæ de Cephalopodis. XVIII. De notanda quadam forma radulæ ad genus « Graneledone » pertinentis*]. Ann. & Magaz. Natur. Hist., 10th ser., XII. London (1933). **b - 434**

**Tutin T. G.** - The Fungus on *Zostera marina* [*De mycetibus in « Zostera marina »*]. Nature, CXXXIV, 3389, 573. London (1934). **b - 435**

Discussion as to the occurrence of the fungus *Ophiobolus halimus* as parasitic on *Zostera nana*.

**Well Nelson A. & ZoBell Claude E.** - *Achromobacter ichthyodermis*, n. sp., the Etiological Agent of an Infectious Dermatitis of Certain Marine Fishes [*A. i., n. sp., causa dermatitis infectivae aliquorum piscium marinorum*]. 2 figs., Proc. Nat. Acad. Sc., XX, 2, 123-126. (1934). **b - 436**

First appearance of the disease. Microscopical examination of direct smears from the *Fundulus* lesions. Pure cultures of the etiological agent and their characteristics.

# OECOLOGIA.

## Adaptatio loco ambienti - Tropismum.

**Abe Noboru** - Ecological Observations on *Batillaria multiformis* (Lischke) [*Observationes ecologicæ circa speciem « Batillaria multiformis »* (Lischke)]. 7 figs., 3 tabl., Sc. Rep. Tôhoku Imp. Univ., Fourth Ser., Biol., VIII, 4, 383-398. Sendai, Japan (1934). **b - 437**

Habitat. Method of locomotion. Behaviour: time of creeping; direction of creeping; number of individuals in creeping in relation to moon (migration); movement of *Batillaria* affected by light; movement of *Batillaria* affected by stream (experiment on rheotropism).

**Barnes T. Cunliffe** - Further Observations of the Salt Requirements of *Ligia* in Bermuda [*Observationes ulteriores de salis necessaria quantitate speciei « Ligia » ad Bermudas pertinentis*]. 1 fig., 4 tabl., Biol. Bull., LXVI, 2, 124-132. Lancaster, Pa. (1934). **b - 438**

The present paper describes the longevity of *Ligia baudiniana*, a littoral isopod of the Bermuda, in weaker solution of single salts, in antagonistic solutions, and when living in air with access to salt solutions. It is shown that the toxicity series for the chief cations in sea water for *L. baudiniana* changes with the concentration of the single salts.

**Berg L. S.** - Ueber die vermeintliche Meereselemente in der Fauna und Flora des Baikalsees [*Opiniones de elementis marinis in fauna et flora lacus* Baikal] (Russ. Text, Dtsch. Rés.). Bull. Acad. Sc., U. R. S. S., Cl. Sc. Mathém. et Natur., 2/3, 303-326. Léningrad (1934). **b - 439**

Vf. widerlegt die von G. J. Werestschagin (1928) geäusserte Ansicht, nach welcher im Baikalsee marine Elemente jurassischer Herkunft vorkommen sollen. Die Fauna des Baikalsees enthält keine solchen Elemente. Die endemischen Formen des Sees (mit der Ausnahme von wenigen Immigranten aus dem Eismeere) stellen entweder alte Süsswasserstypen oder Relikte der obertertiären Binnenseefauna Asiens dar.

**Blum Harold F.** - L'orientation du Copépode *Harpacticus fulvus* sous l'influence de la lumière [*De orientatione speciei « Harpacticus fulvus » lucis influentiæ causa*]. Arch. Int. Physiol., XXXVIII, 1-8. Paris (1934). **b - 440**

**Blum Harold F.** - Le mécanisme d'orientation de la larve de *Homarus vulgaris* sous l'influence de la lumière [*De mechanismo pro orientatione larvæ Homari vulgaris lucis influentiæ causa*]. 1 fig., Bull. Inst. Océanogr., 660, 1-4. Monaco (1934). **b - 441**

Expériences conduites dans le but de démontrer que l'orientation de la larve du homard à la lumière et sa direction sont deux mécanismes intimement liés.

**Brunelli Gustavo** - Le caratteristiche biologiche dell'ambiente lagunare e degli stagni salmastri [*Caracteristicæ biologicæ in ambiente lacunari et in stagnis salmacidis*]. Boll. Pesca, Piscicolt. e Idrobiol., X, 1, 18-28. Roma (1934). **b - 442**

Studio dei fattori termici, chimici e fisici che determinano nelle acque salmastre quelle oscillazioni ambientali caratteristiche che a loro volta modificano l'aspetto biologico delle lagune e degli stagni salmastri. Organismi indicatori.

**Butcher R. W.** - *Zostera*. Report on the Present Condition of Eel Grass on the Coasts of England, based on a Survey during August to October, 1933 [*Zostera. Relatio de præsentibus condicionibus in litoribus Anglicis. Relationis fundamenta ponuntur in inspectione quadam peracta a mense Augusto ad mensem Octobrem 1933*]. 3 figs., Journ. Cons. Expl. Mer, IX, 1, 49-65. Copenhague (1934). **b - 443**

History of the epidemic. Distribution of *Zostera* in England. Details of places particularly examined. Present distribution elsewhere in Britain. Discussion on the cause and effect of the disappearance of *Zostera*.

**Carl G. C.** - Further Study of Lost Lagoon [*De* Lost Lagoon. *Studium ulterius*]. Ann. Rep. Biol. Board Canada, 1933, 70. Ottawa (1934). **b - 444**

Results of the analysis of the salt-content of the water of the Lost Lagoon. Observations on mortality of marine species in the lake due to the disintegration of the blue-green alga, *Anabaena spiroides*.

**Chaisson A. F.** - Adaptation of Salmon and Trout Fry in Tidal Water [*De adaptatione salmonis et larvarum tructae in aquis aestuosis*]. Ann.

Rep. Biol. Board Canada, 1933, 17-18. Ottawa (1934). **b - 445**

Results of experiments carried out on the fry of Atlantic salmon and brown trout to determine the extent to which they would survive transference to sea water.

**Clark A. E.** - The Effects of Temperature and Salinity on Sperms and Larvae of *Ostrea virginica* [*Effectus temperaturæ et salinitatis in sperma et larvas speciei* « *Ostrea virginica* »]. Ann. Rep. Biol. Board Canada, 1932, 22. Ottawa (1933). **b - 446**

Results of observations made in order to determine to what extent the oyster might be limited in abundance and distribution through extreme temperatures and variations in salinity affecting it during spawning and subsequently.

**Clark A. E.** - Effect of Oxygen Content of Water on Oyster Larvae [*De oxygeno in aqua eiusque effectibus in larvas ostreæ*]. Ann. Rep. Biol. Board Canada, 1933, 18. Ottawa (1934). **b - 447**

Results of an attempt made in order to define the lowest oxygen content of the water that would support the life of the developing oyster larvae, showing that even sudden lowering of the oxygen content of the water would not greatly affect the oyster larvae.

**Davidson Viola M.** - Fluctuations in the Abundance of Planktonic Diatoms in the Passamaquoddy Region, New Brunswick [*Fluctuationes in copia Diatomœarum planctonicarum regionis* Passamaquoddy, N. B.]. 33 figs., Contr. Canad. Biol. & Fish., n. ser., VIII, 28, 357-407. Toronto (1934). **b - 448**

Collections made during a period of seven and a half years (1924-1931) show three dominant species: *Thalassiosira Nordenskiöldi*, *Chaetoceros debilis* and *Biddulphia aurita*.

There is no apparent lack of nutrient salts, nitrates, phosphates and silica being reduced but never depleted. Light is an important factor, but its effect is not clearly distinguishable. Marked reduction in surface salinity from river discharge with consequent stability of the water precedes the spring maximum of phytoplankton, and to a less degree local rainfall of summer has a corresponding effect.

**Davy de Virville Ad.** - Observations et expériences sur les variations de l'alcalinité dans les flaques littorales [*Observationes et experimenta in variationes alcalinitatis in puteis litoreis*]. C. R. Acad. Sc., CXCVIII, 12, 1178-1179. Paris (1934). **b - 449**

Les variations quotidiennes de l'alcalinité dans les flaques du littoral, dépendent de la lumière. Elles semblent donc bien être en rapport très étroit avec l'assimilation chlorophyllienne particulièrement intense des Algues vertes.

**Davy de Virville Ad.** - Sur les principaux types de flaques du littoral atlantique [*De præcipuis typis in puteis litoreis atlanticis*]. C. R. Acad. Sc., CXCIX, 16, 734-736. Paris (1934). **b - 450**

En se basant sur leur flore et sur leur écologie l'A. distingue les flaques du littoral atlantique de la manière suivante: Flaques à Chlorophycées, flaques à Algues calcaires, à Cystosires, à *Halopithys pinastroides* et *Ceramium rubrum*, à Fucacées, flaques battues, flaques à *Bifurcaria tuberculata* et *Himanthalia lorea*, à *Chorda filum*, à Laminaires communes, à Floridées, à Zostères.

**Derjugin K. M.** - Einfluss der Meerengen und deren hydrologischen Haushaltes auf die Fauna der Meere und auf die weitere Evolution der letzteren [*De marinis fretis eorumque regimine hydrologico. Agitur de influentia in faunam marium deque eius evolutione ulteriore*] (Russ. Text, dtsch. Rés.). Mém. Inst. Hydrol., X, 369-375. Léningrad (1933). **b - 451**

Die Bedeutung des hydrologischen Haushaltes der Meerengen der Binnen- und Randmeere für das Verständnis des hydrologischen Haushaltes sowie der Fauna dieser Meere. Als Beispiele sind der Bosphorus nebst den Dardanellen, der Eingang ins Weisse Meer und die Meere des Fernen Ostens angeführt. Neue Vorschläge in Bezug auf die hydrologischen Beobachtungen von Binnen- und Randmeeren.

**Dons Carl** - Norges strandfauna. IV. Utbredelsen av *Patella vulgata* [*De fauna litorea Norvegiæ. IV. De distributione speciei* « *Patella vulgata* »]. 3 fig., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 49, 185-186. Trondheim (1934). **b - 452**

Questa specie è stata trovata lungo la costa norvegese fino alla latitudine di 70° 40' N. Sembra che essa eviti i fjords dove l'acqua è più ferma e dove facilmente si formano ghiacci.

**Drilhon-Courtois Andrée** - Sur la régulation de la concentration minérale du milieu intérieur chez quelques Crustacés, et leur adaptation aux changements de salinité [*Agitur de regulatione concentrationis mineralis pro medio interno aliquorum Crustaceorum deque eorum adaptatione ad mutationes salsedinis*]. C. R. Acad. Sc., CXCVIII, 11, 1079-1081. Paris (1934). **b - 453**

L'enrichissement de l'hémolymphe en cations provenant du milieu extérieur (*Astacus*) ou la déperdition en sels de ce même liquide sanguin au profit de l'eau extérieure (*Carcinus*) sont le témoignage d'un mécanisme de perméabilité de ces Crustacés et d'un automatisme réglant la composition minérale et partant la pression osmotique interne par rapport aux variations de la concentration moléculaire extérieure.

**Elton Charles** - The Ecology of Animals [*De animalium oecologia*]. viii + 97 pp., Methuen's Monographs on Biological Subjects, Methuen and Co., Ltd. London (1933). **b - 454**

The A. is the first one who has tried to write a book on the animal inter-relations including also habitats and economic problems. One part of the animal ecology is illustrated by fishing researches carried on in the North Sea. A special interest is dedicated to the study of the different marine environments.

**Fischer Piette E.** - Faune et flore de Saint Servan en 1934 [*Fauna et flora in* Saint-Servan *a. 1934*]. Bull. Labor. Saint-Servan, XIII, 22-30. (1934). **b - 455**

Etudes sur les variations de la faune et de la flore marines d'une année à une autre. Rapports avec les variations de la salinité et celles des divers autres éléments climatériques; interactions des prédateurs et de leurs proies. Algues, Phanérogames, Spongiaires, Coelentérés, Crustacés, Lamellibranches, Gastéropodes, Céphalopodes, Tuniciers. Variations du peuplement d'un fond marin. La fosse de Port-Saint-Jean.

**Fischer Piette E.** - Sur la distribution verticale des organismes fixés dans la zone des fluctuations de la mer [*Agitur de distributione verticali organismorum in zona fluctuationum maris fixorum*]. C. R. Acad. Sc., CXCVIII, 19, 1721-1723. Paris (1934). **b - 456**

On peut dire que, dans la zone des fluctuations de la mer, l'ordre de succession verticale des espèces communes demeure sensiblement le même sur une grande étendue des côtes et qu'il est réglé, avant tout, par le régime de fréquence des périodes d'immersion ou d'humectation, encore plus que par la durée de ces périodes.

**Foxon G. E. H.** - Phototropism in *Porcellana* Larvae [*De phototropismo in larvis generis « Porcellana »*]. Nature, CXXXIV, 3377, 104. London (1934). **b - 457**

The reactions of *Porcellana* larvae to light examined in relation to Loeb's theory, the view of Russell and the study of Spooner.

**Gaver (van) F. & Timon-David J.** - Recherches sur le peuplement du canal souterrain du Rove (Note préliminaire) [*Inquisitiones in organisma quae vivunt in canali subterraneo* Rove (*Nota prior*)]. 3 fig., Bull. Inst. Océanogr., 641, 1-11. Monaco (1934). **b - 458**

Le canal de Marseille au Rhône a créé un habitat nouveau. Etude spéciale de la faune de la partie qui traverse en souterrain la chaîne de la Nerthe. On y trouve la juxtaposition d'espèces nettement euryhalines et d'autres généralement considérées comme strictement sténohalines. Il est intéressant de remarquer que ces formes marines s'accomodent ici d'une eau dont la salinité ne dépasse pas les trois quarts de la moyenne méditerranéenne.

**Gruvel A.** - Sur quelques-unes des causes qui arrêtent la pénétration des espèces animales dans le canal de Suez [*Causæ quæ impediunt penetrationem animalium in canalem* Suez *nomine*]. C. R. Acad. Sc., CXCVIII, 13, 1265-1267. Paris (1934). **b - 459**

Causes d'ordre mécanique du côté de Port-Saïd, causes d'ordre chimique du côté de Suez. Variations très sensibles de la salinité des eaux du grand lac et du petit lac Amers et de leurs abords dans le canal, qui représentent un grand danger pour les espèces à larves démersales.

**Hollister Gloria** - Salt and Fresh-water Viability of Fish [*De piscium adaptatione ad aquam dulcem et salmacidam*]. 1 fig., 1 diagr., Bull. New York Zool. Soc., XXXVII, 6, 183-187. New York (1934). **b - 460**

Account of some experiments undertaken with *Fundulus bermudae, Gambusia, Abudefdus marginatus, Eupomacentrus leucostictus, Haemulon sciurus, Diplodus argenteus, Eucinostomus californiensis, Iridio bivittata, Thallasomma bifasciatum, Lophogobius glaucofraenum, Blennius cristatus, Histrio gibba* and others in order to study the influence of different environments, variations from fresh to salt water and vice versa.

**Horasawa Isamu** - A Survey of the Influence of Sea Water near Yûrakû-tyô Bridge, Tôkyô [*De inspecta influentia aquæ marinæ apud* Yûrakû-tyô Bridge, Tôkyô] (In Jap.). 1 fig., Jap. Journ. Limnol., II, 3, 96-97. Tokyo (1933). **b - 461**

The abundance of Ciliates varies in relation to the Cl-content and joins the maximum in the mixed zone of fresh and sea waters. The plankton contains both fresh and marine forms.

**Kitching J. A., Macan T. T. & Cary Gilson H.** - Studies in Sublittoral Ecology. I. A Submarine Gully in Wembury Bay, South Devon [*De eocologia sublitorea. I. Agitur de quadam gula submarina in Baja* Wembury, South Devon]. 2 figs., 11 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 677-705. Plymouth (1934). **b - 462**

A diving elmeth can be used successfully on the British coast. An ecological survey extending to a depth of 10 feet below low water of ordinary spring tides has been made. Below low water of ordinary spring tides upward facing rock surfaces were occupied by a « *Laminaria* forest association ». Below L. W. O. S. T. vertical or overhanging rock surfaces were occupied by a « *Distomus-Halichondria* association ». Barnacles play an important part in the recolonisation of bare rock surfaces.

**Klähn Hans** - Anpassung, Erhaltung und Vernichtung rezenter und postglazialer Mollusken der mecklenburgischen Ostseeküste und sich daraus ergebende Schlüsse bezüglich der Eigenschaften des mecklenburgischen Litorinameeres [*Adaptatio, conservatio, destructio molluscorum recentium et postglacialium in litoribus Mecklenburgensibus Maris Baltici conclusionesque de præcipuitatibus maris Mecklenburgensis* Litorina *nomine*]. 19 Abb., 2 Taf., Arch. Hydrobiol., XXVII, 1, 61-127. Stuttgart (1934). **b - 463**

Vergleichende, möglichst genau, vor allem variationsstatistisch festgelegte Untersuchungen rezenter Muscheln der offenen See und einer Bucht (Kroy bei Alt-Gaarz an der Ostsee) ergeben eine Anpassung an die Wasserbewegung, welche sich durch grössere Dicke, breiteres Schloss und etwas bedeutendere Maximalgrösse der Muscheln der offenen See gegenüber denen der Bucht dokumentieren. Es folgt weiter, dass die Intensität der Wasserbewegung zwischen derjenigen der offenen See bei Warnemünde und der Bucht Kroy lag, dass der Salzgehalt der Litorina-Bucht bei Warnemünde grösser als der jenige der heutigen See bei diesem Ort war und dass das Litorinameerwasser der mecklenburgischen Küste ebenso wie das Wasser der heutigen See daselbst angenähert kalkgesättigt gewesen sein muss.

**Kramp P. L.** - An Exceptional Occurrence of *Rhizostoma octopus* and *Chrysaora hysoscella* in the Danish Waters in 1933 [*De speciebus « Rhizostoma octopus » et « Chrysaora hysoscella » in aquis Danicis a. 1933. Agitur de earum notanda præsentia*]. 2 figs., 2 tabl., Journ. Cons. Expl. Mer, IX, 2, 211-221. Copenhague (1934). **b - 464**

Description of the distribution of three species of *Scyphomedusae* i. e. *Cyanea Lamarcki* Pér., *R. octopus* (L.) and *C. hysoscella* (L.) which have been rather peculiar in the Danish waters in 1933. Comparison of the occurrence of the two last-mentioned species in different years. Causes of the variations in their occurrence. Hypothetical explanation of the occurrence of the two medusae in Danish waters in recent years, particularly 1933, when both were exceptionally abundant.

**Lami Robert** - Sur l'alcalinisation spécifique et la répartition des Algues dans les cuvettes littorales [*De alcalinisatione specifica et distributione Algarum in puteis litoreis*]. C. R. Acad. Sc., CXCIX, 13, 615-617. Paris (1934). **b - 465**

La valeur maximum du pH in vitro est, pour une espèce, voisine de celle que présente l'eau immédiatement proche de cette même espèce observée pendant le jour et à la même époque, dans des cuvettes littorales de la même région isolées de la mer depuis quelques heures. Ces valeurs ont été déterminées pour 8 espèces d'Algues.

Diverses Algues végétant dans une cuvette à flore algale non homogène se groupent selon leur pH spécifique.

**Luther Alex** - Ueber eine Coccolithinee aus dem Finnischen Meerbusen [*De quibusdam Coccolithineis in Sinu Finlandico*]. 6 Abb., Mem. Soc. pro Fauna et Flora Fennica 1932-1933, 9, 165-171. Helsinki (1933-34). **b - 466**

Die vom Vf. beobachtete Form ist ohne Zweifel identisch mit Scherfels (1927) *Hymenomonas roseola* (= *H. Scherffeli* Conrad) und wohl auch mit *Pontosphaera stagnicola* Chodat &Rossillo (= *H. stagnicola* Kamptner 1930). Vermutung anderer Synonymen. Das Verhalten von *H. roseola* im Wasser mit verschiedenem Salzgehalt.

**M'Gonigle R. H.** - Analysis of Certain Fish Mortality Data [*Analysis aliquorum datorum de mortalitate piscium*]. Ann. Rep. Biol. Board Canada, 1933, 26. Ottawa (1934). **b - 467**

Conclusion justified by a statistical analysis undertaken of some extensive data upon various phases of mortalities associated with the following species of fish: Atlantic Salmon

(*Salmo salar*), land-locked Salmon (*S. s. sebago*), rainbow Trout (*S. irideus*), speckled Trout (*Salvelinus fontinalis*), and lake Trout (*Cristivomer namaycush*). The analysis has been confined to the stages of life from the freshly fertilized egg to the parr stage of the October following, i. e. about a year.

**Miyadi Denzaburo** - On Marine Relict *Mysidacea* [*Mysidacea marina relicta*] (In Jap., Engl. Rés.). 2 tabl., Bull. Jap. Soc. Scient. Fish., I, 6, 291-298. Tokyo (1933). **b - 468**

Japanese fresh-water Mysids are treated in this paper and their ecology is compared with that of a glacial marine relict *Mysis relicta*. Japanese relict *Mysidacea* may be identified with either *Neomysis awatschensis* and *N. nigra*. Those from Etorohu-Sima of the Kurile Islands, Hokkaido and the Kwanto Plain belong to the former, and those from the Japan Sea coast of southern Honsyu are referred to the latter.

**Moore Hilary B.** - The Biology of *Balanus balanoides* I. Growth Rate and its Relation to Size, Season and Tidal Level [*De biologia speciei « Balanus balanoides ». I. De rythmo accretionis eiusque correlatione cum dimensionibus, anni tempore, maris livello*]. 4 figs., 9 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 851-868. Plymouth (1934). **b - 469**

The growth rate of the Barnacles varies greatly with age, season and tide level, but in general there is a period of maximum growth in the summer and very little growth in the winter. Growth, except during the first year, is greatest higher up the shore. Young Barnacles, which settle too late in the year, have their growth retarded by the summer heat, but almost catch up in size the earlier settled spat, by the beginning of the next year. Most of the lower- and middle-zone Barnacles die in their third year, but those from the extreme top zone may live for five years or more.

**Moore Hilary B.** - A Comparison of the Biology of *Echinus esculentus* in Different Habitats [*De biologia speciei « Echinus esculentus » pro differentibus « habitat » comparata*]. 5 figs., 6 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 869-885. Plymouth (1934). **b - 470**

There are two types of ground at Port Erin, differing widely in the general environmental conditions, and each with a characteristic type of urchin on it. Physical conditions on the grounds. Ripening of the gonads. Gonad volumes. Time of spawning. The relation of spawning to temperature. General character of the Urchins from the different grounds.

**Moore Hilary B.** - Occurrence of the Floating Barnacle in British Waters [*Lepas fascicularis natans in aquis anglicis*]. Nature, CXXXIII, 3365, 651. London (1934). **b - 471**

Correction of errata in a work by Orton & Rawlinson (Nature, CXXXIII, 3359, 418) on this subject.

**Needler A. W. H.** - Hydrography of Malpeque Bay Area ; Winter Conditions [*De hydrographia in Baja* Malpeque. *Condiciones hiemales*]. Ann. Rep. Biol. Board Canada, 1933, 30-31. Ottawa (1934). **b - 472**

Results of a study of the conditions under ice, which are of importance in connection with the survival « winter-killing » and movements of the forms living in the Malpeque Bay area ; rate of formation of the ice ; protection of the bottom water from cooling offered by the fresher surface layer under the ice ; stability of stratification of the water under ice during the winter months.

**Nikitine B. N. & Malm E.** - L'influence de l'oxygène, des ions hydrogène et de l'acide carbonique sur la distribution verticale du plankton de la Mer Noire [*De influentia oxygeni*, pH *et acidi carbonici in distributionem verticalem planctonicam Ponticam*]. 7 tabl., 4 diagr., Ann. Inst. Océanogr., XIV, 4, 137-171. Paris (1934). **b - 473**

Les AA. ont tenté d'établir l'influence de l'oxygène, du carbone dioxyde et de la concentration en ions hydrogène sur plusieurs formes zooplanktoniques de la Mer Noire et d'approcher ainsi la question du rôle que jouent ces facteurs du milieu, au point de vue écologique. Les résultats des expériences conduites par eux mêmes et les observations dans les conditions naturelles de la mer, ainsi que de nombreuses données de littérature, permettent aux AA. de reconnaître les rôles essentiels et quelquefois même décisifs de l'oxygène et de $CO_2$ parmi les facteurs conditionnant la distribution verticale des organismes dans la mer.

**Orton J. H.** - Bionomical Studies on *Cardium edule* with Special Reference to Mortality in 1933 [*Studia bionomica speciei « Cardium edule ». Agitur particulatim de eius mortalitate, a. 1933*]. 4 figs., 8 tabl., James Johnstone Mem. Vol., 97-120. Liverpool (1934). **b - 474**

Results of observation and study of a high degree of mortality of *C. edule* carried out in relation to the general biology of *C. edule* during the summer of 1933, in the course of investigations on the bionomics of this shellfish on the Cark beds, Morecambe Bay. General biological conditions and mortality in 1933. Viability of the affected *C. edule*. Parasites of *C. edule*. Seasonal quantitative distribution of healthy and affected *C. edule*. On overcrowding. Variation in size with habitat. Temperature conditions on the beds in 1933. Conclusions. Acknowledgments. Literature cited.

**Orton J. H. & Rawlinson Ruth** - The Floating Barnacle on the North Cornish Coast in the Summer of 1933 [*Lepas fascicularis natans praeter litora merid. ad* Cornwall *pertinentia æstate 1933*]. 1 fig., Nature, CXXXIII, 3359, 418. London (1934). **b - 475**

Occurrence of fifty individuals of *L. fascicularis* on the shore at New Train Bay. Most of them floated freely, a little group was attached to floating fronds of *Fucus* and *Ascophylum* in different ways. Discussion on different floating habits. Hypotheses as to the causes of the curious occurrence of this species in this locality ; probably this interesting floating barnacle may often serve as a useful indicator of important physical events.

**Pentland E. S.** - Experiments with Salt-Water Amphipods [*De experimentis, amphipodorum ex aqua salsa auxilio perfectis*]. Ann. Rep. Biol. Board Canada, 1932, 34-35. Ottawa (1933). **b - 476**

Experiments on resistance to low salinity of three species of *Gammarus* : *G. annulatus*, *G. locusta* and *Galliopius laeviusculus*. Observations on the hatching of the eggs of *G. marinus* and *G. annulatus*, and on the rate of growth of the same species. In two cases the period between moults was determined for two females of both the species respectively.

**Pérez Charles** - Exposé de biologie zoologique. 1 : Les Pagures ou Bernards l'Ermite (un exemple d'adaptation) [*Biologia zoologica. 1 : Paguri vel Eupagurus bernhardus (adaptationis exemplum)*]. 33 pp., (Actualités Scient. et Industr., 101), Hermann et C.ie. Paris (1934). **b - 477**

L'A. donne des brèves informations sur la biologie générale des espèces les plus communes de Bernards l'ermite et en considérant l'adaptation des espèces-type distribue les *Paguridea* selon une succession évolutive.

**Phifer Lyman D.** - $A_5$. 9. Periodicity of Diatom Growth in the San Juan Archipelago [*$A_5$. 9. De periodicitate accretionis Diatomœarum in archipelago* San Juan]. Proc. Fifth Pacific. Sc.

Congr., 2047-2049. Victoria & Vancouver, B. C. (1933). **b - 478**

Analysis of the two types of annual cycles of phytoplankton production found in this region, the first, that of the main channels, and the second, that of long narrow bays. Discussion as to the factors controlling the diatom growth, namely nutrient salt content, instability of the surface water and illumination.

**Poulsen Erik M.** - On the Remarkable Inflow of Coalfish into the Kattegat in 1932 [*De notabili immigratione speciei « Gadus virens » in* Kattegat, *a. 1932*]. 2 figs., 2 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, 3-ème partie, Appendices 1933-1934, LXXXIX, 81-83. Copenhague (1934). **b - 479**

The causes of this inflow are to be sought in the salinity and temperature anomalies prevailing in the Kattegat during 1932. The fate of these larvae and youngfish. Tables indicating the length of larvae and salinity.

**Prenant Marcel** - Exposé de biologie écologique. 1: Adaptation, écologie et biocoenotique [*Biologia oecologica. 1: Adaptatio, oecologia et biocenosis*]. 60 pp., (Actualités Scient. et Industr., 103), Hermann et C.ie. Paris (1934). **b - 480**

**Prenant Marcel** - Modifications récentes de flore et de faune marines dans le Morbihan et la Baie de Quiberon [*Variationes recentes floræ et faunæ maris in regione* Morbihan *et in baja* Quiberon]. Bull. Inst. Océanogr., 648, 1-8. Monaco (1934). **b - 481**

Documents sur la régression actuelle des herbiers de Zostères et sur ses conséquences. Extension récente des Laminaires dans le Morbihan.

**Raffy Anne** - Influence des variations de salinité sur l'intensité respiratoire de la telphuse et de l'écrevisse [*De variatione salsedinis eiusque influentia in intensitatem respirationis in speciebus « Telphusa fluviatilis » et « Potamobius astacus »*]. 1 table, C. R. Acad. Sc., CXCVIII, 7, 680-681. Paris (1934). **b - 482**

L'écrevisse est nettement sténohaline, elle maintient son taux respiratoire dans le milieu inhabituel et cela presque jusqu'à la mort. La telphuse présente une totale euryhalinité ; elle abaisse progressivement sa consommation d'oxygène au fur et à mesure qu'elle est dans un milieu plus concentré.

**Remane A.** - Die Brackwasserfauna (Mit besonderer Berücksichtigung der Ostsee) [*De fauna aquæ salmacidæ* (*Agitur particulatim de aqua Maris Baltici*)]. 5 Abb., 1 Tab., Zool. Anz., 7 Suppl.-Band, 34-74. Leipzig (1934). **b - 483**

Der Vf. hat für das Studium der Abnahme der marinen und Brackwasserarten die folgenden Vergleichsgebiete gewählt. I. Das deutsche Nordseegebiet ; II. die deutsche Beltsee ; III. die südliche Ostsee bis nördlich Gotland ; IV. die restlichen nördlichen Gebiete, worüber auch eine Tabelle gegeben wird. Versuche zur Erklärung der Artenarmut. Die Brackwassertiere. Die Einteilung der Brackwässer. Die Lebensgemeinschaften des Brackwassers. Vergleich der Ostsee mit anderen Brackwassergebieten. Zur physiologischen Erklärung der biologischen Brackwasserphänomene.

**Ritchie A. D.** - The Habitat of *Procerodes ulvæ* [*Procerodes ulvæ eiusque « habitat »*]. Journ. Mar. Biol. Assoc., XIX, 2, 663-668. Plymouth (1934). **b - 484**

*P. ulvae* has been found living in streams with calcium content as low as 5 mgm. per litre. Its upper limit does not appear to be affected by the calcium content of the water. The animals at the upper limit are liable to about 5 days' exposure to fresh water if calm weather coincides with neap tides. Animals living in water of 8-10 mgm. Ca per litre have been found alive at the end of such a period.

**Russell E. S.** - The Behaviour of Animals: an Introduction to its Study [*De animalium adaptatione : introductio in studium*]. 6 pl., viii + 184 pp. Edward Arnold and Co. London (1934). **b - 485**

**Saemundsson Bjarni** - Probable Influence of Changes in Temperature on the Marine Fauna of Iceland [*De probabili quadam influentia variationum temperaturæ in faunam marinam Islandicam*]. 1 map, Rapp. Pr. - Verb. Cons. Expl. Mer, (Scient. Rep. North-Western Area Comm. for 1930-1932), LXXXVI, 1-6. Copenhague (1934). **b - 486**

Some introductory remarks on the increase of the surface-temperature in the Norwegian Sea and in the waters round South-Greenland and Iceland during the last decennium. As a consequence, a general trend of migration to more northern waters has been observed for the icelandic species, the Cod (*Gadus callarias* L.), the Herring (*Clupea harengus* L.) and the Capelan (*Mallotus villosus*, O. F. Müller) as well as for other Fishes before very rarely seen in Icelandic waters, as the Witch (*Pleuronectes cynoglossus* L.) the Turbot (*Rhombus maximus* L.), the Basking Shark (*Selache maxima* (Gunn.)), the Tunny (*Orcynus thynnus* (L.)), the Mackerel (*Scomber scombrus* L.), the Skipper (*Scombresox saurus* Wlb.), the Sunfish (*Orthagoriscus mola* L.), the Scopelid (*Paralepis Krøyeri* Lth.), and a great many Whales.

**Saunders L. C.** - The Fresh-Water Shrimps (Amphipods) of Vancouver Island [*De Amphipodis ex aqua dulci ad* Vancouver *insulam pertinentibus*]. Ann. Rep. Biol. Board Canada, 1933, 100. Ottawa (1934). **b - 487**

Brief account of a preliminary study of certain waters on Vancouver island from the point of view of their amphipod population representing a very important trout food. Notes on *Corophium volutator*, a marine species which penetrates considerable distances up the tidal zones of streams entering the sea and is able to exist in fresh-water for considerable periods of time.

**Schuett F.** - Studies in Mass Physiology: The Effect of Numbers upon the Oxygen Consumption of Fishes [*Numeri effectus in oxygeni consumptionem per pisces*]. Ecology, XIV, 106-122. New York (1933). **b - 488**

**Spärck R.** - Treaarsexpeditionen til Christian den X's Land 1931-34 under Ledelse of Lauge Koch. Contributions to the Animal Ecology of the Franz Joseph Fjord and Adjacent East Greenland Waters I-II [*De expeditione tres annos ducta ad Terram Christiani Xi a. 1931-34. Duce* Lauge Koch. *Contributiones in animalium ecologiam in Fjordo* Franz Joseph *et aquis quæ Groënlandiam orientalem circumdant*]. 5 figs., 6 pl., Medd. om Grønland, C, 1, 1-38. København (1933). **b - 489**

1) On the bathymetrical and hydrographical conditions: on the bathymetry of the Franz Joseph Fjord and adjacent waters ; on the bottom deposits ; some remarks on the hydrography of the Franz Joseph Fjord and adjacent waters.

2) On the animal communities and the productivity of the bottom fauna in the Franz Joseph Fjord and adjacent East Greenland waters : The *Arca-Astarte crenata* community ; the *Foraminifera* community ; on the epifauna within the Franz Joseph Fjord area ; on the productivity of the bottom fauna in the Franz Joseph Fjord area and the adjacent waters.

**Stålberg Georges** - Beitrag zur Kenntnis der Biologie von *Mysis relicta* des Vättern [*Contributio in biologiam speciei « Mysis relicta » in lacu*

Vättern]. Ark. f. Zool., XXVI, H. 3, 3, 1-29. Stockholm (1934). **b - 490**

Die Verteilung auf die verschiedenen Wasserschichten. Fangtechnik. Der Sauerstoffbedarf u. s. w. Beobachtungen betreffs der Lichtempfindlichkeit, der Empfindlichkeit für Temperaturdifferenzen, Rheotaxis, Nahrung und Nahrungsaufnahme.

**Stephenson T. A.** - The Liberation and Utilization of Oxygen by the Population of Rock-pools [*De oxygeno liberato et ad utilitatem reducto ab animalibus in puteis litoreis viventibus*]. 5 tabl., Journ. Exp. Biol., XI, 2, 162-172. London (1934). **b - 491**

The present paper gives an account of the variations in oxygen content and hydrogen-ion concentration in rock-pools situated on the False Bay side of the Cape peninsula; and a quantitative account of the population of some of these pools, for correlation with the oxygen determinations.

**Templeman W.** - Effect of Food, Light and Salinity on Survival of Lobster Larvae [*Effectus alimentationis, lucis et salsedinis in vitam superstitem larvarum speciei «Homarus vulgaris»*]. Ann. Rep. Biol. Board Canada, 1933, 38-39. Ottawa (1934). **b - 492**

Food: results of two experiments carried out on the relation of the quantity of food to survival. Light: Effect of light upon 37 first stage larvae. Salinity: Successfully moulting of first stage larvae into the second stage at all salinities from about 30 per mille to about 14 per mille. Effects upon the larvae of minor and superior degrees of salinity.

**Templeman W.** - Effect of Temperature on Survival of Lobster Larvae [*Effectus temperaturæ in vitam superstitem larvarum speciei «Homarus vulgaris»*]. Ann. Rep. Biol. Board Canada, 1933, 39. Ottawa (1934). **b - 493**

Investigation on low and high temperatures effect on survival of lobster larvae.

**Thorson G. & Ussing H.** - Treaarsexpeditionen til Christian den X's Land 1931-34 under Ledelse of Lauge Koch. Contributions to the Animal Ecology of the Scoresby Sound Fjord Complex (East Greenland) [*De expeditione tres annos ducta ad Terram Christiani X$^i$ a. 1931-34 Duce* Lauge Koch. *Contributiones in animalium œcologiam in fjordo* Scoresby Sound (East Greenland)]. 3 figs., 20 tabl., 6 pl., Medd. om Grønland, C, 3, 1-68. København (1934). **b - 494**

The bathymetry and the hydrography of the Scoresby Sound fjord complex. On the animal-communities and the productivity of the bottom fauna in the Scoresby Sound fjord complex: A) Communities and zones of the clay-bottom: the *Macoma-calcaria*-community; the *Venus-fluctuosa*-community; the *Portlandia-arctica*-community, the *Arca-astarte-crenata*-community; B) The epifaunistic zones; C) The relations between the distribution of bottom-animals and the ecological conditions.

**Vaughan Wayland** - Present Trends in the Investigation of the Relations of Marine Organisms to their Environment [*Propensiones hodiernæ quoad inquisitiones de correlationibus inter organisma marina et eorum ambientem*]. 1 diagr., Ecol. Monographs, 4, 501-522. (1934). **b - 495**

Earlier investigations of organisms with reference to their environments. Progress in the study of dynamical oceanography and the physical properties of sea water. Development of methods for the study of the chemistry of sea water. Physiological investigation of marine organisms. Reproductive cycles and life histories. Diseases of marine organisms. Summary of methods and subjects in the study of adaptation.

**Vellard J.** - Destructions périodiques de la faune des rivières du grand Chaco par des variations de salure [*De periodica destructione faunæ per flumina regionis* Gran Chaco *ex variationibus salsedinis*]. C. R. Acad. Sc., CXCVIII, 20, 1802-1804. Paris (1934). **b - 496**

Résistance des différentes espèces de Poissons, vivant dans le Pilconayo et le Confuso, aux variations de salure, qui surviennent en particulier pendant l'hiver lorsque les pluies sont presque nulles et les eaux se chargent de sel enlevé au sol.

**Welsch J. H.** - Investigations on the Nature of the Physiological Factors Controlling Daily Rhythms and Phototropic Responses in Marine Organisms [*Inquisitiones in naturam factorum physiologicorum qui reinspiciunt rythmos cotidianos motusque phototropicos in organismis marinis*]. Woods Hole Oceanogr. Inst., Rep. 1930-32, 37. Woods Hole, Mass. (1933). **b - 497**

Brief summary of experiences carried out with larvae of the mussel crab, *Pinnotheres*, in order to study the light intensity and temperature as factors controlling the rate of swimming of the larvae.

**Welsch J. H.** - Studies on (1) Light and the Behaviour of Marine Organisms; (2) Biology of *Pinnotheres maculatus* Say [(*1*) *De luce ac ratione agendi organismorum marinorum.* (*2*) *Pinnotheres maculatus* Say *eiusque biologia*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 51. Woods Hole, Mass. (1933). **b - 498**

Brief information upon a survey of the effect of intensity of illumination on the behaviour (especially rate of locomotion) of a number of marine Invertebrates, made during the summer 1932 and additional data obtained on the biology of *Pinnotheres maculatus* Say.

**Yocom Harry B.** - Observations on the Experimental Adaptation of Certain Fresh-water Ciliates to Sea water [*Ciliata aquæ dulcis. Observationes de eorum adaptatione experimentali in aqua marina*]. Biol. Bull., LXVII, 2, 273-276. Lancaster, Pa. (1934). **b - 499**

Experiments carried out in order to establish if *Euplotes patella*, a common fresh-water form, might be gradually adapted to live in sea water. This species was used because some of the species of *Euplotes* are known to live in salt water. The results are very doubtful.

**Zinovjev A. P.** - Saline and Brackish Basins of the Troitsk District, Ural Region. The Fauna of *Copepoda* and *Phyllopoda* [*De bacinis salsis et salmacidis in districtu* Troitsk, *in regione Montium Uralium. Copepoda et Phyllopoda*]. 5 tabl., Bull. Inst. Rech. Biol., IX, 6/8, 271-295. Perm (1934). **b - 500**

This paper represents a part of the elaboration of materials collected with the view of an hydrobiological study of the basins of the Troitsk Reserves and its neighbourhood, collected by the author from 1929 to 1932 incl. and contains a summary of the observations of the animal life of basins more or less saline. The results allow to make some conclusions concerned with the problem of the genesis of saline basins, their formation, their development, and the causes of the difference of composition of their waters. The species of the fauna of the basins observed are scanty, and variations in the composition of the population are observed not only in different lakes, but in the same lake.

## Animalium societas - Biocenosis - Symbiosis.

**De Buen Fernando** - Fondos de Terebrátulas y Crinoideos en el Mediterráneo occidental [*Terebratulæ et Crinoidea in Mediterraneo occidentali*]. Bol. Soc. Españ. Hist. Natur., XXXIV, 8/9, 439-444. Madrid (1934). **b - 501**

El A. da los resultados de la exploración de especiales fondos poblados densamente de Braquiópodos y Crinoideos, señalando su biocenosis y las condiciones oceánicas en que viven.

Resultados de los abundantes dragados efectuados, en la planicie continental balear, a bordo del guardacostas « Xauen ».

**Fage L. & Legendre R.** - Les Annélides Polychètes du genre *Iphitime*. A propos d'une espèce nouvelle commensale des Pagures, *Iphitime Paguri* n. sp. [*Polychæta generis « Iphitime ». I. Paguri, species nova commensalis Pagurorum*]. 5 fig., Bull. Soc. Zool. France, LVIII, 299-305. Paris (1934). **b - 502**

Une large enquête montre que les Brachyures les plus divers : *Macropodia, Gonoplax, Portunus* peuvent servir d'hôte à l'*Iphitime Cuenoti*.

Une nouvelle espèce, que les AA. proposent d'appeler *I. Paguri* a été rencontrée sur les branchies d'*Eupagurus bernhardus* (L.). Caractères de distinction parmi les deux espèces d'*Iphitime* considérées.

**Giltay Louis** - Note sur l'association de *Balanus concavus pacificus* Pilsbry (Cirripède) et *Dendraster excentricus* (Eschscholtz) (Echinoderme) [*Nota de consociatione inter speciem « Balanus concavus pacificus »* Pilsbry *et speciem « Dendraster excentricus »* (Eschscholtz)]. 4 fig., Bull. Mus. R. Hist. Natur. Belgique, X, 5, 1-7. Bruxelles (1934). **b - 503**

Différentes sous-espèces du genre *Balanus concavus* connues depuis le Tertiaire.

Position de *B. c. pacificus* sur le disque de *Dendraster excentricus*. Dommages que le balane provoque à l'échinoderme. Avantages de la fixation pour les Balanes.

**Gohar H. A. F.** - Partnership between Fish and Anemone [*Consociatio inter piscem quemdam et actiniam*]. Nature, CXXXIV, 3382, 291. London (1934). **b - 504**

The A. adds some information to the known habits of the commensals : *Amphiprion bicinctus* and *Actinia quadricolor*.

**Iljin B. S.** - Biocoenose des halistatischen Gebiets des Schwarzen Meeres [*De biocoenosi in zona halistatica Ponti Euxini*]. Priroda, 7, 63-65. Leningrad (1933). **b - 505**

Die hier lebenden Formen, *Idothea algirica, Syngnathus Schmidti, Nautilograpsus minutus* und *Gasterosteus aculeatus* sind als diesem Lebensbezirk besonders angepasste Organismen zu bezeichnen. Charakteristika, Milieuverhältnisse.

**Raffy Anne** - Études physiologiques sur les associations animales. L'intensité respiratoire des Pagures et de leurs commensaux [*Studia physiologica de consociationibus animalium. De intensitate respiratoria Pagurorum eorumque commensalium*]. Bull. Inst. Océanogr., 643, 1-7. Monaco (1934). **b - 506**

L'A. en se tenant aux seules conclusions qui ressortent de ses données numériques, conclut que les Pagures et leurs commensaux respirent plus activement lorsqu'ils sont réunis que lorsqu'ils sont séparés, sans en déduire nécessairement qu'il y a là un cas de commensalisme physiologique.

**Yonge C. M.** - Origin and Nature of the Association between Invertebrates and Unicellular *Algæ* [*De origine et natura consociationis inter Invertebrata et algas unicellulares*]. Nature, CXXXIV, 3375, 12-15. London (1934). **b - 507**

Author's experimental research and a critical examination of recent work on this type of symbiosis, have enabled him to throw some light on the origin and nature of this association. Analysis of the symbiosis of the *Algae* with carnivore and herbivorous or omnivorous animals. Transference of an alga from one type of animal to another. Many gradations as to the nature of the association. From this summary it is concluded that by symbiosis is meant only a relationship which is mutually advantageous to both parties, then the only adequately investigated cases which meet this requirement are *Paramecium bursaria, Chlorohydra* and the reef-building Corals (and probably all *Anthozoa*).

## Parasiti.

**Adam W.** - Prosobranches parasites [*Prosobranchia parasitica*]. 16 fig., Mém. Mus. R. Hist. Natur. Belgique, h. sér., Résult. Scient. voyage aux Indes orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique, II, 14 (2), 85-115. Bruxelles (1934). **b - 508**

Parmi les Mollusques étudiés, il se trouve quelques exemplaires du genre *Thyca*, qui permettent de décrire le mâle nain, inconnue à l'heure actuelle, de l'espèce *Thyca crystallina*. D'autre part il y a quelques *Melanella*, dont *M. holothuricola* est nouvelle.

**Ass M. J.** - *Anoplura* der Walrosse [*Anoplura in Trichechis*] (Russ. Text, Dtsch. Rés.). 13 Abb., 1 Tab., Trans. Arct. Inst., IX, 89-105. Leningrad (1934). **b - 509**

Beobachtungen über *Antarctophthirius trichechi* Bohem., eine *Anoplura* vom Walross (*Trichechus rosmarus*). Es werden zum ersten Male Abbildungen der verschiedenen Larvenstadien dieser Insekten gemacht.

**Atkins D.** - Two Parasites of the Common Cockle *Cardium edule :* a Rhabdocoele *Paravortex cardii* Hallez and a Copepod *Paranthessius rostratus* (Canu) [*Paravortex cardii* Hallez *et Paranthessius rostratus* (Canu) *parasiti in specie « Cardium edule »*]. Journ. Mar. Biol. Assoc., XIX, 2, 669-676. Plymouth (1934). **b - 510**

Account of British parasites of *C. edule* in view of the serious mortality reported in this species in the summer of 1933.

**Baylis H. A.** - A Little-known Nematode Parasite of the Eel [*De nematode parum cognito parasito in anguilla*]. 3 figs., Ann. & Magaz. Natur. Hist., 10th Ser., XIII, 74, 235-240. London (1934). **b - 511**

Redescription of the species new to England, *Paraquimperia tenerrima*, from the intestine of *Anguilla anguilla*.

**Bolívar Izquierdo Ignacio** - Sobre dos Mizostómidos de las costas de España (Anel.) [*De duobus Myzostomatis præter litora hispanica*]. 1 fig., Bol. Soc. Españ. Hist. Natur., XXXIV, 10, 489-496. Madrid (1934). **b - 512**

El A. da una ligera descripción de la especie *Myzostoma ciniferum*, que infesta los individuos de *Antedon bifida* y llama la atención sobre los problemas biológicos y morfólogicos mas importantes que plantea el estudio de estos animales. La posición sistemática de esta especie.

**Bonnot P.** - Parasites of Fishes [*Parasiti Piscium*]. Calif. Fish and Game, XIX, 1, 9-15. (1933). **b - 513**

**Borcea-Léon Lucie** - Note préliminaire sur les Cestodes des Elasmobranches ou Sélaciens de la Mer Noire [*De Cestodibus parasitis in Elasmobranchiis et Selachioideis ponticis. Nota prior*]. 10 fig., Ann. Scient. Univ. Jassy, XIX, 1/4, 345-369. Jassy (1934). **b - 514**

Etude détaillée des Cestodes rencontrés chez plusieurs exemplaires de *Trygon pastinaca* Cuv. et quelques exemplaires de *Raia clavata* L. Parmi les formes décrites l'espèce *Acanthobothrium ponticum* est nouvelle.

**Brooks G. L.** - Some New Ectoparasitic Trematodes (*Onchocotylinæ*) from the Gills of American Sharks [*Nonnullæ Onchocotylinæ ectoparasiticæ novæ in branchiis Squalorum americanorum*]. 8 figs., Parasitol., XXVI, 2, 259-267. London (1934). **b - 515**

*Heteronchocotyle hypoprioni* n. g., n. sp. from the gills of the yellow Shark (*Hypoprion brevirostris*). *Squalonchocotyle ginglymostomae* n. sp. from the gills of the nurse Shark (*Ginglymostoma cirratum*). *S. microstoma* n. sp. from the gills of the hammerhead Shark (*Sphyrna zygaena*). *S. tiburonis* n. sp. from the gills of the bonnet Shark (*Sphyrna tiburo*).

**Bychowsky B.** - Beitrag zur Kenntnis neuer monogenetischer Fischtrematoden aus dem Kaspisee nebst einigen Bemerkungen über die Systematik der *Monopisthodiscinea* Fuhemann, 1928 [*Contributio in Trematodes monogenea nova cognoscenda parasitica piscium Maris Caspii. Adiunguntur nonnullæ observationes de systhematica quoad Monopisthodiscinea* F. *1928*]. Zool. Anz., CV, 17-38. Leipzig (1933). **b - 516**

**Chandler Asa C.** - A Revision of the Genus *Rhadinorhynchus* (*Acanthocephala*) with Descriptions of New Genera and Species [*Reinspectio generis R. cum descriptione novorum generum et specierum*]. 2 tabl., 1 pl., Parasitol., XXVI, 3, 352-358. London (1934). **b - 517**

Of the ten species which have been referred to the genus *Rhadinorhynchus* four (*pristis*, *horridus*, *tenuicornis* and *exilis*) are considered valid members of that genus. *Selkirki* is considered a synonym of *pristis*. *Katsuwonis* is placed in a new genus, *Nipporhynchus* and it is suggested that *ornatus* may possibly belong to it. *Medius* is transferred to the new genus *Gorgorhynchus* of which a new species *G. gibber*, is made the type. *Wheeleri* and *johni* are both referred to the genus *Aspersentis*.

**Chatton Edouard & Lwoff André** - Sur un infusoire parasite des poils sécréteurs des Crustacés edriophthalmes et la famille nouvelle des *Pilisuctoridæ* [*Crustacea edriophthalmata. De infusorio quodam parasito in pilis secretoriis et de nova familia « Pilisuctoridæ »*]. C. R. Acad. Sc., CXCIX, 16, 696-699. Paris (1934). **b - 518**

Description et multiplication d'un infusoire nouveau, *Conidophrys pilisuctor* n. gen., n. sp., parasite des poils sécréteurs de divers Amphipodes et d'un isopode sphénomien des canaux de Sète et de l'Etang de Thau.

A cause des caractères si spéciaux de son trophonte les AA. placent ce cilié nouveau dans la nouvelle famille des *Pilisuctoridae*.

**Chrenko Frank A.** - A List of Parasitic *Rhabdocoela* (*Turbellaria*) of Plymouth [*Rhabdocoela* (*Turbellaria*) *parasitica in regione* Plymouth. *Index*]. 2 figs., Parasitol., XXVI, 1, 114-115. London (1934). **b - 519**

In the list are given: parasite, author, location and host as well as some other notes on the species.

**Damas H.** - *Hydrichthys cyclothonis* (nov. sp.) Hydroïde parasite du Poisson *Cyclothone signata* (Garman) [*Hydrichthys cyclothonis n. sp. parasitica in specie « Cyclothone signata »* (Garman)]. 4 fig., Bull. Mus. R. Hist. Natur. Belgique, X, 7, 1-10. Bruxelles (1934). **b - 520**

Matériel étudié et fréquence du parasite. Position du parasite sur son hôte. Description de l'hydroïde. Rapports de l'hydroïde avec son hôte. Position zoologique du parasite. Parasitisme d'*Hydrichthys* et *Ichthyocodium*.

**Daniel G. F.** - Studies on *Ichthyophonus hoferi*, a Parasitic Fungus of the Herring, *Clupea harengus*. II. The Gross and Microscopic Lesions Produced by the Parasite [*I. h. myces parasitus in specie « Clupea harengus ». Vulnera magna et microscopica a parasito inlata*]. Amer. Journ. Hyg., XVIII, 491-501. Baltimore (1933). **b - 521**

**Dollfus Robert Ph.** - Sur une larve de Tétrarhynque enkystée chez un *Dentex macrophtalmus* Cuv. Val. [*Larva Tetrarhynchidarum incistata in Dentice macrophthalmo* Cuv. Val.]. 7 fig., Bull. Trav. Stat. Aquicult. et Pêche Castiglione 1932, 123-133. Alger (1934). **b - 522**

Etude des kystes, attachés par un tractus conjonctif à l'enveloppe péritonéale de l'intestin de *Dentex macrophthalmus*, ou plus au moins profondément engagés dans la tunique musculaire. Vésicule, scolex, rapports et différences, position systématique.

**El Saby M. K.** - The Internal Anatomy of Several Parasitic *Copepoda* [*De anatomia interna complurium Copepodorum parasitorum*]. Proc. Zool. Soc. London, 861-879. London (1933). **b - 523**

**Finnegan Susan** - On a New Species of Mite of the Family *Halarachnidæ* from the Southern Sea Lion [*Species nova ex familia Halarachnidarum, parasitica speciei meridionalis « Otaria byronia »*]. Discovery Rep. (Govmt. Depend. Falkland Isls.), VIII, 319-328. Univ. Press. Cambridge (1934). **b-524**

**Gibbons Norman E.** - The Slime and Intestinal Flora of Some Marine Fishes [*De muco et flora intestinali aliquorum Piscium marinorum*]. 2 tabl., Contr. Canad. Biol. & Fish., VIII, 22, 275-290. Toronto (1934). **b - 525**

A study was made of the slime and faeces of 43 fishes, representing 11 marine species. Eighty species and varieties of *Bacteria* were isolated, 22 from slime only, 14 from faeces only, and 44 from both slime and faeces. This study would indicate that the flora of the slime and faeces of marine fish is quite similar.

**Gibbons Norman E.** - Lactose-fermenting *Bacteria* from the Intestinal Contents of Marine Fish [*De Bacteriis qui lactosium fermentant in continentia intestinali Piscium marinorum*]. 2 tabl., Contr. Canad. Biol. & Fish., VIII, 23, 291-300. Toronto (1934). **b - 526**

From 112 marine Fishes examined for the presence of lactose-fermenting *Bacteria*, 31 strains were isolated which produced acid and gas in this sugar and 3 which produced acid only. Ten strains belonged to the genus *Aerobacter*, 8 being *A. aerogenes* and 2 probably varieties of *A. cloacae*. Nine were soil types and the relationship of one was doubtful.

**Guberlet John E.** - Notes on some *Onchocotylinæ* from Naples with a Description of a New Species [*Onchocotylinæ quædam neapolitanæ. Notæ et descriptio novæ cuiusdam speciei*]. 1 table, Pubbl. Staz. Zool. Napoli, XII, 3, 323-336. Napoli (1932-1933). **b - 527**

The gills of several specimens each of ten species of Elasmobranchs taken in the vicinity of Naples were examined for parasites belonging to the sub-family *Onchocotylinae*. This sub-family is placed in the family *Polystomatidae*.

*Onchocotyle canicula* is recorded from *Scyllium stellare* and *S. canicula*. *Squalonchocotyle vulgaris* is reported from *Mustelus laevis*. *Squalonchocotyle catenulata* n. sp. is described from *Mustelus laevis*.

**Iwanow A. W.** - Ein neues endoparasitisches Mollusk *Pædophoropus dicoelobius* n. gen. n. sp. (Vorl. Mitt.) [*Pædophoropus dicoelobius n. gen. n. sp., endoparasiticus* (*Nota prior*)]. 3 Abb., Zool. Anz., CIV, 5/6, 161-165. Leipzig (1933). **b - 528**

*Paedophoropus dicoelobius* n. gen., n. sp., Parasit in der Polischen Blase von *Eupyrgus pacificus*, Japanisches Meer.

**Jirovec O.** - *Octosporea machari* n. sp. aus der Leber von *Dentex vulgaris* [*Octosporea machari n. sp. in iecore speciei* « *Dentex vulgaris* »]. Zool. Anz., CVI, 61-64. Leipzig (1934). **b - 529**

**Kahl A.** - Die Tierwelt der Nord und Ostsee. Lief. 26. Teil 2. $c_4$ : *Ciliata entocommensalia et parasitica* Teil 2. $c_5$ : *Suctoria*. Begr. von Grimpe G. und Wagler E. ; Hrsg. von Grimpe G., 147-226, Akad. Verlagsg. m. b. H. Leipzig (1934). **b - 530**

**Kirtisinghe P.** - Parasitic Infection of Porcupine Fish [*De infectione parasitaria speciei* « *Diodon maculatus* »]. Nature, CXXXIII, 3352, 142. London (1934). **b - 531**

Thousands of dead porcupine Fish, *Diodon maculatus* were cast up on the south-west and western coasts of Ceylon. Hypotheses as to the cause of the death of this fish, all the specimens of which were infested with a parasitic copepod, which may be *Pennella sagitta*.

**Kirtisinghe P.** - *Gloiopotes watsoni* n. sp. and *Lernaeenicus seeri* n. sp., Parasitic Copepods of Fish from Ceylon [*Gloiopotes watsoni n. sp. et Lernæenicus seeri n. sp., Copepoda parasitica Piscium insulæ* Ceylon]. 21 figs., Parasitol., XXVI, 2, 167-175. London (1934). **b - 532**

*G. watsoni* was collected from the skin of a Sailfish, *Histiophorus gladius* Day ; *L. seeri* was taken from a seer Fish, *Cybium* sp. Both were caught off the south coast of Ceylon.

**Klevenhusen W.** - Die Bevölkerung des südatlantischen Ozeans mit Corycaeen [*Copia Corycæidarum in Atlantico Merid.*]. Wiss. Ergebn. Dtsch. Atlant. « Meteor » - Exped. 1925 - 1927, XII, 2. Walter de Gruyter & Co. Berlin & Leipzig (1933). **b - 533**

Beschreibung ; horizontale und vertikale Verbreitung und damit zusammenhängende Faktoren. *Corycella gracilis*, *C. rostrata*, *Corycaeus speciosus*, *C. clausi*, *Onychocorycaeus giesbrechti*, *O. latus*, *O. agilis*, *Urocorycaeus furcifer*, *Agetus limbatus*, *Ditrichocorycaeus africanus*, *D. amazonicus*, *D. minutus uncinatus*.

**Klie W.** - Halbparasitische Copepoden aus der Kieler Bucht [*Copepoda semi-parasitica ad Sinum* Kiel *pertinentia*]. Schrift. naturwiss. Ver. f. Schleswig-Holstein, XX, (1933). **b - 534**

Sechs neue Arten von denen vier Vertreter der bisher hier überhaupt nicht gefundenen siphonostomen Copepoden : *Ascomyzon parvum*, aus Spongien *Dermatomyzon nigripes* (Wirt nicht bekannt), *Scotto cheres elongatus* aus Spongien und *Bradypontius papillatus*, *Lichomolgus Canui* von der Tunikate *Styelopsis grossularia* und *Notodelphys elegans*.

**Leigh-Sharpe W. Harold** - A Third List of Parasitic *Copepoda* of Plymouth with Notes [*Copepoda parasitica in regione* Plymouth. *Index tertius cum notis*]. 2 figs., Parasitol., XXVI, 1, 112-113. London (1934). **b - 535**

In the list are given the parasite, the author, the collector, the location, and the host, as well as additional notes on these species and species previously recorded.

**Linton E.** - Some Observations on the Distribution of Helminth *Entozoa* of Fishes of the Woods Hole Region (Massachusetts, U. S. A.) [*Observationes de distributione Vermium endoparasiticorum in Piscibus regionis* Woods Hole, Mass.]. 2 tabl., James Johnstone Mem. Vol., 121-131. Liverpool (1934). **b - 536**

*Acanthocephala*. - *Nematoda*. - *Trematoda* : Distomes incysted in the epidermis of fish. *Cestoda* : Cestodes of Sharks and Skates. Partial list of papers by the author on helminth parasites of Fishes of Woods Hole region.

**Manter H. W.** - Trematodes from Deep-water Fishes [*Trematodes parasiti in piscibus qui in maris profunditatibus vivunt*]. Papers Tortugas Labor. Carnegie Instit. Washington, XXVIII. Washington, D. C. (1934). **b - 537**

In the paper are described 39 Trematodes, 15 of which belong to the *Hemiuridae*, 13 to the *Fellodistomidae* and 11 to the *Bucephalidae*. Distribution of the species in relation to the depth. Special observations on : *Derogenes varicus*, *Cymbephallus vulgaris* and *Sterrhurus floridensis*.

**Markerwitsch Alessandro** - Descrizione di due specie nuove di *Ergasilus* provenienti dalla Russia (U. R. S. S.). (Copepodi parassiti) [« *Ergasilus* » *Species duæ novæ ex Russia* (*Copepoda parasitica*). *Descriptio*]. 18 fig., Mem. Soc. Entomol. Ital., XII, 2, 129-141. Genova (1934). **b - 538**

L'A. descrive due nuove specie di Copepodi parassiti dei pesci : l'*Ergasilus Briani* e l'*Ergasilus Wilsoni*. La prima si trova parassita su varie specie di pesci d'acqua dolce provenienti dai bacini dell'U.R.S.S. La seconda si trova nel Mar d'Okhotsk e nel Mar del Giappone ; il suo ospite è il *Leuciscus Brandti* Dybowski.

**McIntosh Allen** - A New Blood Trematode, *Paradeontacylix sanguinicoloides* n. g., n. sp. from *Seriola Lalandi* with a Key to the Species of the Family *Aporocotylidæ* [*Paradeontacylix sanguinicoloides n. g. n. sp. parasitica in Seriola Lalandi. Explicatio adiungitur pro familia* « *Aporocotylidæ* »]. 1 fig., Parasitol., XXVI, 4, 463-467. London (1934). **b - 539**

This blood fluke was obtained from the gills of *S. Lalandi*, taken by the A. from the Atlantic Ocean off Miami, Florida. Generic diagnosis, description, habitat, remarks.

**Miyashita Yoshinobu** - Remarks on the Secondary Sexual Characters of *Brachyura* [*Brachyura. Considerationes circa eorum caracteres sexuales secundarios*]. 1 fig., Ann. Zool. Jap., XIV, 2, 197-201. Tokyo (1933). **b - 540**

An Epicaridan parasite was found in about 10 % of *Eriocheir japonicus*. It determines a slight asymmetry of carapace of the female and a reduction of the ovary. The sexual characters of the male remain almost normal.

**Mortensen Th. & Kolderup Rosenvinge L.** - Sur une algue cyanophycée, *Dactylococcopsis echini* n. sp., parasite dans un oursin [*Dactylococcopsis echini n. sp. parasitica in echino*]. 4 fig., Kgl. Danske Vidensk. Selsk., Biol. Medd., XI, 7, 1-10. København (1934). **b - 541**

Relation entre le parasite et l'hôte (par Th. Mortensen). Description du parasite (par L. Kolderup Rosenvinge).

**Ozaki Yoshimasa & Ishibashi Chuji** - Notes on the Cercaria of the Pearl Oyster [*Notæ de cercaria in ostrea margaritifera*]. 3 figs., Proc. Imp. Acad., X, 7, 439-441. Tokyo (1934). **b - 542**

Description of *Bucephalus margaritae* n. sp. which is a terrible parasite of the pearl oyster. Its relationships with other species.

**Price Emmett W.** - New Digenetic Trematodes from Marine Fishes [*Trematodes digenea nova parasitica piscium marinorum*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep. 1 pl., Smiths. Miscell. Coll. (Publ. 3234), XCI, 7, 1-8. Washington, D. C. (1934). **b - 543**

This paper contains descriptions of five digenetic Trematodes that are regarded as new: *Steringotrema ovata*, *Pycnadena piriforme*, *Lecithostaphylus atherinae*, *Plagioporus fusitormis*, *Podocotyle lanceolata*.

**Price Emmett W.** - New Monogenetic Trematodes from Marine Fishes [*Trematodes monogenea nova Piscium marinorum*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-Sea Expedition to the Puerto Rican Deep. 1 pl., Smiths. Miscell. Coll. (Publ. 3286), XCI, 18, 2-3. Washington, D. C. (1934). **b - 544**

*Ancyrocotyle Bartschi* n. sp. from the gills of *Naucrates ductor* and *Ancyrocephalus atherinae* n. sp. from the gills of *Atherina araea*.

**Raabe Zdzistaw** - Ueber einige an den Kiemen von *Mytilus edulis* L. und *Macoma balthica* (L.) parasitierende Ciliaten-Arten [*Ciliata parasitica branchiarum specierum* « *Mytilus edulis* » L. *et* « *Macoma balthica* » (L.)]. 2 Abb., 2 Taf. a. T., 1 Tab., Ann. Mus. Zool. Pol., X, 15, 289-303. Warszawa (1934). **b - 545**

Zur Vervollständigung einer früheren Arbeit stellt der Vf. hier für die Art *Conchophthirus mytili* De Morgan eine neue Gattung *Kidderia* auf und gibt zugleich in einer Tabelle die verschiedenen Merkmale dieser beiden Gattungen. Diagnose für die gebildete neue Art *Kidderia mytili* (De Morgan). *Conchochophthirus mytili* De Morgan, die Gattung *Kidderia* g. n., *Ancistrum mytili* (Quennerstedt), *Ancistrocoma pelseneeri* Chatton & Lwoff, *Hypocomella macomae* Chatton & Lwoff und *Hypocomina carinata* sp. n.

**Robinson V. C.** - A New Species of Accacoelid Trematode (*Accacladocoelium alveolatum* n. sp.) from the Intestine of a Sun-Fish (*Orthagoriscus mola* Bloch) [*Accacladocoelium alveolatum species nova parasitica in intestino piscis* « *Orthagoriscus mola* » Bloch]. 1 pl., Parasitol., XXVI, 3, 346-351. London (1934). **b - 546**

General appearance. Alimentary canal. Excretory system. Genital system. Systematic position.

**Scott Lucas Miriam** - Ciliates from Bermuda Sea Urchins. I. *Metopus* [*De Ciliatis echinorum ex Bermudis. I. Metopus*]. 1 fig., 4 pl., Journ. R. Microscop. Soc., ser. III, LIV, 2, 79-93. London (1934). **b - 547**

Two species of the genus *Metopus* (*M. circumlabens* Biggar and *M. rotundus* n. sp.) occur among other Ciliates in the intestinal lumina of Bermuda Island sea Urchins. *M. circumlabens* has formed the basis for a cytological study of the neuromotor system. The pharyngeal strand which in *Metopus* has reached a prominent state of development is perhaps the element most suggestive of theoretical consideration.
(Contr. Bermuda Biol. Stat. Research, No. 167).

**Setna S. B. & Bhatia B. L.** - On Some Gregarines from the Prawn, *Parapeneopsis sculptilis* (Heller) [*De nonnulis Gregarinis parasiticis in specie* « *Parapeneopsis sculptilis* » (Heller)]. 23 figs., Parasitol., XXVI, 1, 34-43. London (1934). **b - 548**

*Hirmocystis* (?) *parapeneopsisi* sp. nov. and *Protomagalhaensia* (?) *attenuata* sp. nov. Sporonts and early associations; unique associations; associations of larger individuals, cysts, diagnosis, habitat, systematic position. *Aggregata* sp.

**Stephensen K.** - Some New Copepods, Parasites of Ophiurids and Echinids. (Papers from Dr. Th. Mortensen's Pacific Expedition 1914-16, 64) [*Nonnulla Copepoda nova parasitica in Ophiuridis et Echinidis*]. 7 figs., Vidensk. Medd. Dansk Naturhist. For. København, 93, 197-213. København (1933). **b - 549**

*Cancerilla durbanensis* n. sp. on *Amphipholis squamata*, *Cancerillopsis* n. gen. near *Cancerilla*, type *C. nanaimensis* n. sp. on *Amphiodia urtica*, *Arthrochordeumium asteromorphae* n. sp. in *Asteromorpha koehleri*, *Ophioika* n. gen. (taxonomic position not given), type *O. ophiacanthae* n. sp. ♀ in *Ophiacantha severa*, *Dichelina* n. gen. near *Hatschekia* and *Dichelestium*, type *D. phormosomae* in *Phormosoma bursarium*.

**Stunkard H. W. & Nigrelli R. F.** - Observations on the Genus *Sterrhurus* Looss, with a Description of *Sterrhurus branchialis* sp. nov. (*Trematoda, Hemiuridæ*). [*Observationes in genus* « *Sterrhurus* » Looss *et descriptio speciei novæ S. branchialis*]. 2 figs., Biol. Bull., LXVII, 3, 534-543. Lancaster, Pa. (1934). **b - 550**

The study of a species of *Sterrhurus* from the gills of the cutlass fish, *Trichiurus lepturus* Linn. shows that it is specifically distinct from all previously described forms. The name *S. branchialis* is proposed for it. Description of digestive system, male and female reproductive systems, copulatory organs and excretory system for the species. Comparisons with other species of the genus and with allied genera.

**Timon-David Jean** - Recherches sur les Trématodes Parasites des Oursins en Méditerranée [*Inquisitiones in Trematodes parasitos echinorum Maris Mediterranei*]. 6 fig., Bull. Inst. Océanogr., 652, 1-16. Monaco (1934). **b - 551**

Après un bref aperçu sur l'habitat des différentes espèces d'oursin observées, l'A. donne la description: d'une métacercaire de *Zoogonus mirus* parasite chez *Sphaerechinus granularis*, *Paracentrotus lividus* et chez *Arbacia aequituberculata*; et de *Metacercaria psammechini* nov. sp., trouvée chez *Sphaerechinus granularis*, associée à *Zoogonus mirus*.

**Uyemura M.** - Ueber einige neue Ciliaten aus dem Darmkanal von japanischen Echinoideen [*De quibusdam Ciliatis novis parasiticis in intestino Echinoideorum japonicorum*]. Sc. Rep. Tokyo

Bunr. Daig., Sect. B., I, 14, 181-191. Tokyo (1933). **b - 552**

Zwei neue Ciliaten, *Entorhipidium fukui* n. sp. und *Conchophthirus striatus* n. sp., sind in verschiedenen Arten von japanischen Meeresschweinchen gefunden worden.

**Yamaguti S.** - Studies on the Helminth Fauna of Japan. Part 2. Trematodes of Fishes [*Studia faunæ helminthologicæ Japoniæ. Pars IIa. Trematodes Piscium*]. 145 figs., Jap. Journ. Zool., Trans., V, 3, 249-541. Tokyo (1934). **b - 553**

Description of many species from both marine and freshwater Fishes. Several new genera and new species were found.

**Yamaguti S.** - Studies on the Helminth Fauna of Japan. Part 4. Cestodes of Fishes [*Studia faunæ helminthologicæ Japoniæ. Pars IVa. Cestodes Piscium*]. 187 figs., Jap. Journ. Zool., Trans., VI, 1, 1-112. Tokyo (1934). **b - 554**

The selachian Cestodes described in this paper were collected for the most part at Kuki on the Pacific coast of Mie Prefecture, but the teleostean materials are from various localities (Inland Sea, Toyama Bay, Lake Biwa, etc.). It is very interesting to note that the marine forms from such different Fishes as Sharks, Sunfishes, Swordfishes, Codfishes, etc. are also widely spread.

# BIOGEOGRAPHIA.

## Geographica distributio.

**Athanassopoulos G.** - Sur la présence des Pélamydes (*Pelamys sarda* Bl.) dans la Méditerranée orientale [*Pelamys sarda* Bl., *in Mediterraneo orientali*]. Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, Annexe I, 315-316. Paris (1934). **b - 555**

Information sur l'abondance inaccoutumée de Pélamydes dans les eaux grecques en 1933. Alternance entre les Auxides et les Pélamydes dans ces eaux. Modification de la route suivie ordinairement par ces Poissons migrateurs comme cause de leur présence inattendue, provoquée par un changement d'intensité du courant du détroit des Dardanelles.

**Awerinzew S.** - Ueber die Verteilung von *Mallotus villosus* im Barentsmeer [*Mallotus villosus. De eius distributione per Mare* Barents]. 4 Karten, Journ. Cons. Expl. Mer, IX, 1, 79-82. Copenhague (1934). **b - 556**

Die unerhört wechselnde Verteilung von *Mallotus villosus* im Barentsmeer wird hier für jeden Monat beschrieben und in Karten gezeigt. Ohne ganz sichere Schlüsse in Bezug auf diese Schwankungen zu ziehen, stellt der Vf. sie mit den Strömungen und der Verbreitung gewisser Planktonarten zusammen.

**Barnard K. H.** - Second Occurrence of the Whale-Shark (*Rhineodon typus*) in South Africa [*Rhineodon typus iterum collectus in Africa meridionali*]. Nature, CXXXIV, 3376, 66. London (1934). **b - 557**

This specimen was found stranded on the sands at Kommetje Bay (on the west side of the Cape Peninsula).

**Barnard K. H.** - The Lobster, *Enoplometopus occidentalis*, Randall, in South Africa [*Enoplometopus occidentalis*, Randall, *in Africa merid.*]. Nature, CXXXIV, 3391, 665. London (1934). **b - 558**

Its presence on the Natal coast is interesting and worthy of record.

**Belloc Gérard** - Note sur la limite méridionale de l'aire de distribution du Merlu [*Nota de limite meridionali distributionis speciei « Merlucius merluccius »*]. Rev. Trav. Off. Pêch. Marit., VI, 1, 63-65. Paris (1933). **b - 559**

L'A. démontre que le merlu européen est abondant au large du Cap Blanc (Mauritanie) et que sa présence a été reconnue jusqu'au delta du Sénégal. Il n'a pas été encore possible de préciser la limite méridionale de sa distribution, mais il est probable qu'elle doit être située dans les parages du Cap Vert et peut-être même plus au Sud.

**Berg L. S.** - Sur la distribution amphi-boréale (interrompue) de la faune marine dans l'hémisphère Nord [*De distributione amphi-boreali faunæ marinæ per hemisphærium septentrionale*] (En russe). Bull. Soc. Géogr. Etat, LXVI, 1, 69-78. Léningrad (1934). **b - 560**

Description des animaux marins amphi-boréaux (Poissons, Mollusques, Echinodermes, Crustacés, Mammifères). Quelques données sur leur distribution dans les eaux polaires. Les causes du caractère amphi-boréal de leur distribution.

**Bērziņš Bruno V. A.** - *Cottus bubalis* Euphr. im Rigaer Meerbusen [*Cottus bubalis* Euphr. *in Sinu Cylipeno*]. Fol. Zool. et Hydrobiol., V, 1, 81-82. Riga (1933). **b - 561**

Diese Art, die nach einer Angabe 1883 nur längs der schwedischen Küste nordwärts bis Stockholm anzutreffen war, ist in späterer Zeit auch im Finnischen und Rigaer Meerbusen aufgefunden worden. Möglich ist, dass sie wegen ihrer grossen Aehnlichkeit mit dem gewöhnlichen *C. scorpius* L. einfach übersehen worden ist.

**Boettger Caesar R.** - Die Ausbreitung der Wollhandkrabbe (*Eriocheir sinensis* Milne-Edw.) in Europa [*De distributione speciei « Eriocheir sinensis »* Milne-Edw. *in Europa*]. Sitz. ber. Ges. Naturforsch. Freunde, III, 399-415. Berlin (1934). **b - 562**

Einige Vermutungen in Bezug auf die Zeit, Weise und Ursachen der Uebersiedlung nach Europa und die dortige Verbreitung. Neue Fundorte eingetragen. Möglichkeit fernerer Ausbreitung. Verwechslung mit *Dromia vulgaris*. Bibliographie.

**Brambell F. W. & Cole H. A.** - Occurrence of an Enteropneust in Wales [*De quodam enteropneusta in* Wales]. Nature, CXXXIII, 3372, 913. London (1934). **b - 563**

A small enteropneust was found on the Anglesey coast of the Menai Straits. It has been identified as a species of *Dolichoglossus*. Occurrence of adult Enteropneusts around the coasts of the British Islands.

**Brunelli G. & Bini G.** - Sulla immigrazione di una specie di *Teuthis* dal Mar Rosso al Mar Egeo [*De immigratione cuiusdam speciei ad genus « Teuthis » pertinentis a Mari Rubro ad Mare Erythræum*].

Atti R. Accad. Naz. Lincei, XIX, 4, 255-260. Roma (1934). **b - 564**

Si riportano i risultati di studi, fatti durante diverse spedizioni, sulle specie di Pesci che abitano il canale di Suez, e che son passate attraverso il canale da un mare all'altro. Si nota quindi la presenza di un genere indo-pacifico, il *Teuthis siganus* nelle acque dell'Egeo.

**Chabanaud Paul** - Contribution à l'étude de la faune ichthyologique du Canal de Suez [*Contributio in studium faunæ ichthyologicæ in Canali* Suez]. Bull. Soc. Zool. France, LVIII, 5, 287-292. Paris (1933). **b - 565**

Le présent travail, suite aux notes déjà publiées sur le même sujet, contient diverses observations amplificatives ou rectificatives, formulées à propos de déterminations antérieures.

**Chemin E.** - Une excursion algologique aux Iles Anglo-Normandes [*Navigatio algologiæ causa suscepta ad insulas Anglo-Normannas*]. 1 carte, Bull. Labor. Saint-Servan, XII, 1-22. Rennes (1934). **b - 566**

Liste des Algues recoltées par stations : Château Elisabeth, Les Ecréhous, Grottes Gouliot, Anse de Bordeaux, Baie du Petit-Bot. Caractères particuliers à chacune de ces stations, mention des espèces remarquables soit par leur taille, soit par leur abondance, soit par leur rareté. Considerations générales sur l'ensemble de la flore et ses rapports avec les contrées voisines et remarques sur trois espèces qui n'avaient pas été signalées jusqu'ici : *Laminaria ochroleuca* de la Pyl., *Falkenbergia Hillebrandii* (Born.) Falk. et *Asparagopsis armata* Harv.

**Chevey P.** - Répartition verticale de la faune ichtyologique devant les côtes orientales de l'Indochine française [*De distributione verticali faunæ ichtyologicæ ante litora orient. Indosinensis Gallicæ Regionis*]. 1 carte, C. R. Acad. Sc., CXCIX, 19, 980-982. Paris (1934). **b - 567**

Disposition des fonds le long des côtes indochinoises. Résultats des pêches effectuées sur les fonds de 30 à 50 m. et sur les fonds de 80 à 140 m. Considérations sur les affinités des formes pêchées.

**Chitwood B. G.** - Two New Nematodes [*Nematodes novi duo*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep. 1 pl., Smiths. Miscell. Coll. (Publ. 3243), XCI, 11, 1-4. Washington, D. C. (1934). **b - 568**

One of the species described, *Ascarophis cestus*, was collected from a deep-sea fish, *Coelorhynchus* sp.

**D' Ancona Umberto** - Le specie mediterranee del genere *Syngnathus* [*Species mediterraneae ad genus* « *Syngnathus* » *pertinentes*]. 3 tav., 40 fig., Mem. R. Comit. Talassogr. Ital., No. CCX, 3-82. Venezia (1934). **b - 569**

Specie e unità sistematiche minori. Caratteri distintivi delle specie del gen. *Syngnathus*. Cenni storici sulla sistematica dei Singnatidi mediterranei. Specie mediterranee del gen. *Syngnathus* : *Syngnatus typhle* L., *S. acus* L., *S. tenuirostris* Rathke, *S. variegatus* Pallas, *S. taenionotus* Canestr., *S. abaster* Risso, *S. Agassizii* Kaup, Canestr. (nec Michah.), *S. bucculentus* Rathke, *S. phlegon* Risso, *S. Schmidti* Popov.

**Dons Carl** - Zoologische Notizen XXIV. Ueber die Verbreitung der *Pleurophyllidia Lovéni* [*Notitiæ zoologicæ, XXIV. De distributione speciei* « *Pleurophyllidia Lovéni* »]. 1 fig., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 48, 183-184. Trondheim (1934). **b - 570**

Diese Art, welche zum erstenmal 1853 im Oslofjord nachgewiesen worden ist, scheint zur Zeit im Begriff sich nordwärts zu verbreiten und ist neuerdings viermal in den Gewässern des Trøndelags gefunden. Beschreibung.

**Feldmann Jean** - Les Laminariacées de la Méditerranée et leur répartition géographique [*Laminariaceæ Maris Mediterranei earumque distributio geographica*]. 13 fig., Bull. Trav. Stat. Aquicult. et Pêche Castiglione 1932, 2, 143-184. Alger (1934). **b - 571**

Tableau de détermination des Laminariacées méditerranéennes. Description, répartition géographique et écologie des espèces suivantes : *Laminaria Rodriguezii* Bornet, *L. iberica* (Hamel) Lami ; *Phyllaria reniformis* (Lamour.) Rostafinski, *Ph. purpurascens* (C. Ag.) Rostafinski ; *Saccorhiza bulbosa* (Hudson) De la Pylaie. Remarques sur la répartition géographique des Laminariacées méditerranéennes.

**Fischer-Piette E.** - Remarques de systématique et de biogéographie sur les Patelles des côtes françaises [*Considerationes de systematica et biogeographia Patellarum ad litora gallica pertinentium*]. 2 fig., Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 3, 280-285. Paris (1934). **b - 572**

L'A. étudie les Patelles des côtes françaises, en vue de préciser la valeur des coupures spécifiques à établir, à l'aide de mesures de la radula, et en examinant aussi la forme des dents de la radula. Il donne ici les premiers résultats concernant les Patelles océaniques, qui comprennent les espèces : *Patella vulgata, P. intermedia, P. depressa* et *P. lusitanica*.

**Glassell Steve A.** - Affinities of the Crab Fauna of California [*Fauna carcinologica Californiensis. Quæstio de affinitate*]. Journ. Wash. Acad. Sc., XXIV, 296. Washington, D. C. (1934). **b - 573**

The study undertaken by the A. shows that the total number of Crabs in the Gulf of Maine is 197. A detailed analysis of this fauna indicates an infusion of southern forms.

**Goodwin G. G.** - Occurrence of a Gray Seal at Atlantic City, N. J. [*Halichoerus gryphus in* Atlantic City, N. J.]. Journ. Mammal., XIV, 1, 73. Baltimore, Md. (1933). **b - 574**

First state record of *Halichoerus gryphus*.

**Gurjanova E.** - The *Crustacea* of the Kara Sea and the Ways of the Penetration of Marine Atlantic Fauna into the Arctis [*Crustacea Maris Karensis. Agitur etiam de penetratione faunae marinae Oceani Atlantici in regiones arcticas*] (In Russ., Engl. Rés.). 1 map, C. R. Acad. Sc. U. R. S. S., I, 2, 91-96. Léningrad (1934). **b - 575**

The seven zoogeographical groups of *Crustacea* in the Kara Sea. Dependence of the distribution of these 7 groups in the Kara Sea upon the distribution of depths and salinity, and upon the origin of each group. Demonstration, on hand of the geographical distribution of the Atlantic species observed in the Kara Sea, of the way of the penetration of Atlantic fauna into the arctic region.

**Heldt H.** - Note sur la capture de l'Esturgeon (*Acipenser* L.) dans les mers tunisiennes [*Acipenser sturio. De eius captura in maribus tunetanis*]. 3 fig., Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 81-84. Paris (1934). **b - 576**

Description d'un exemplaire d'*Acipenser sturio* capturé sur la côte nord tunisienne. C'est la première fois qu'on rencontre cette espèce dans les eaux tunisiennes.

**Hylmö D. E.** - Algenimmigration nach der schwedischen Westküste [*De immigratione Algarum in litus occid. Suetiæ*]. 4 Abb., Bot. Not., 1/3, Jubileumsskrift., 377-390. Lund (1934). **b - 577**

*Fucus inflatus* L., *Callithamnion roseum* (Roth.) ; Bemerkungen über ihr Vorkommen in Schweden, wo sie vorzugsweise wachsen, und wie sie dahingekommen sind. Geographische Verbreitung. Bastardenformen.

**Kylin Harald** - Några algfynd från bohusländska kusten [*De algis repertis in litoribus Provinciæ* Bohuslän (*in Suetia*)]. Bot. Not., 1/3, Jubileumsskrift, 391-394. Lund (1934). **b - 578**

Le specie seguenti sono nuove per la costa occidentale svedese : *Codium tomentosum*, *Arthrocladia villosa*, *Chantransia stricta*, *Ch. gynandra*, *Cruoriopsis gracilis*, *Compsothamnion gracillimum* e *Callithamnion bipinnatum*. Per ogni specie l'A. dà la diagnosi e la sinonimia.

**Lami Rob.** - Nébulosité et brumes régionales comme facteurs possibles de la répartition géographique des Algues [*Nebulæ et caligines regionales possibiles factores distributionis geographicæ algarum marinarum*]. Rev. Algol., VII, 1/2, 181-182. Paris (1934). **b - 579**

D'après les études de la flore algale du Golfe de Gascogne et du Golfe normand-breton, qui présente un caractère ou d'éléments plus méridionaux que ceux qui devraient normalement s'y rencontrer, l'A. pense que la nebulosité doit être un facteur très important dans la répartition des espèces.

**Lami Rob.** - Stations nouvelles de quelques Algues rares dans la Manche occidentale [*Algæ quædam raræ in Freto Britannico occid. Stationes novæ*]. Rev. Algol., Notes, VII, 1/2, 182-184. Paris (1934). **b - 580**

*Laminaria Lejolisii*, *Codium difforme*, *Sporochnus pedunculatus* et *Arthrocladia villosa*, *Dasnya punica*, *Griffithsia barbata*, *Naccaria Wigghii*.

**Matheson Colin & Cowley Lionel F.** - *Pseudorca crassidens* (Owen) on the Glamorgan Coast [*Pseudorca crassidens* (Owen) *in litore* Glamorgan]. 1 fig., Nature, CXXXIII, 3371, 870. London (1934). **b - 581**

Note on a school of these Cetaceans stranded at Whiteford Sands, Llanmadog. Occurrence of schools of these rare Dolphins.

**Meyer Karl** - Die geographische Verbreitung der tripyleen Radiolarien des Südatlantischen Ozeans [*Radiolaria tripylaria. De eorum geographica distributione per Oceanum Atlanticum merid.*]. Wiss. Ergebn. Dtsch. Atlant. « Meteor »-Exped. 1925-1927, XII, 122-198. Walter de Gruyter & Co. Berlin & Leipzig (1933). **b - 582**

Die Ergebnisse der verschiedenen Fänge sind in fünf Tabellen mit fünf verschiedenen Tiefen angegeben. Der erste Teil dieser Arbeit umfasst die Verteilung der *Microtripylea* im westlichen und südlichen Aequatorialbezirk des Atlantischen Ozeans und der zweite Teil die Verteilung der *Macrotripylea*. Der Vf. ist der Ansicht, dass der Gehalt an Phosphor der hauptsächliche Faktor für Verteilung der *Radiolaria* ist. Das Vorkommen gewisser vorherrschender Typen wie *Aulacantha scolymantha*, *Coelodendrum ramosissimum* und *C. furcatissimum* sind besonders erörtert im Vergleich mit den Befunden anderer Expeditionen.

(Siehe auch Rés.: Naturwiss., 46, 778, 1934).

**Oshima Masamitsu** - Occurrence of *Cryptosaras couesii* in the Japanese Waters [*Cryptosaras couesii in aquis Japoniis*]. 1 fig., Rec. Oceanogr. Works in Japan, VI, 1, 108-109. Tokyo (1934). **b-583**

Description of an interesting specimen of this deep sea fish, unrecorded until now from the Japanese waters, and taken in Japan Sea, off the coast of Touchizaki, Akita Prefecture.

**Pesta O.** - Zoogeographische Berichte über Crustaceen [*Zoogeographica relatio de Crustaceis*]. Zool. Anz., CIV, 274-282. Leipzig (1933). **b - 584**

Neue Fundorte für *Valdiviella insignis*, *Penilia Schmackeri*, *Microniscus*, *Lernaeenicus*, *Brancinecta granulosa*. Verzeichnis der Dekapoden von Hawai; Notiz über die Verbreitung und Wanderungsgeschwindigkeit der *Eriocheir sinensis*.

**Redeke H. C.** - On the Occurrence of two Pelagic Copepods, *Acartia bifilosa* and *Acartia tonsa*, in the Brackish Waters of the Netherlands [*Copepoda duo pelagica, Acartia bifilosa et A. tonsa in aquis salmacidis Hollandiæ*]. 3 figs., Journ. Cons. Expl. Mer, IX, 1, 39-45. Copenhague (1934). **b - 585**

The planktonic Copepod *Acartia* (*Acanthacartia*) *tonsa* Dana made its appearance in the Netherlands between the years 1912 and 1916. Here it is nowadays extremely abundant and one of the most common Copepods of the brackish, especially mesohaline, waters of the Netherlands. *Acartia* (*Acanthacartia*) *bifilosa* (Giesbr.), still very common in the first decade of this century seems to have completely disappeared from the Netherlandic waters and is replaced by *Acartia tonsa*.

**Renfors Lauri** - Ein Vertreter der Familie *Spionidæ* (*Annelida, Polychæta*) aus dem Finnischen Meerbusen [*Prototypus ex familia Spionidarum* (*Ann. Pol.*) *Sinus Finnici*]. 1 Abb., Mem. Soc. pro Fauna et Flora Fennica, 1932-33, IX, 31-32. Helsinki (1933-34). **b - 586**

Kurzer Bericht über einen kleinen in der Bucht Balget zwischen Tvärminne und Hanko gefundenen Polychaeten, der offenbar keiner der bisher aus Finnland bekannten Arten angehörte. Nach dem Vf. handelt es sich von *Pygospio elegans* Claparède.

**Rensch Bernhard** - Die Molluskenfauna von Pulu Weh und ihre zoogeographischen Beziehungen. (Aus den Ergebnissen der Sunda-Expedition Rensch) [*Fauna molluscorum in* Pulu Weh *eiusque correlationes zoogeographicæ*]. 11 Abb., Zool. Anz., CII, 7/8, 195-208. Leipzig (1933). **b - 587**

Der Vf. berichtet über 20 Arten von der Insel Pulu Weh in der Nähe von Sumatra.

**Russell F. S.** - On the Occurrence of the Siphonophores *Muggiæa atlantica* Cunningham and *Muggiæa kochi* (Will) in the English Channel [*Muggiæa atlantica* Cunningham *et M. kochi* (Will.) *in Freto Britannico*]. Journ. Mar. Biol. Assoc., XIX, 2, 555-558. Plymouth (1934). **b - 588**

Examination of all the collections made since the year 1913. It seems possible that both species are essentially inhabitants of less contamined coastal waters. When occurring in British waters they generally first appear towards the end of the summer and often continue on through the autumn to the January or February in the following year.

**Schuh R. E.** - On the Distribution of *Sorocarpus* [*De distributione generis « Sorocarpus »*]. Rhodora, XXXV, 347. (1933). **b - 589**

This genus is distributed on the east coast of North America, on the coasts of the British Isles, Heligoland and in the Baltic Sea.

**Schuh R. E.** - On *Polysiphonia fibrillosa* in New England [*De Polysiphonia fibrillosa in Anglia Nova*]. Rhodora, XXXV, 391-392. (1933) **b - 590**

Geographical distribution of this species, which at south of Cape Cod, where it is very common, must be considered an immigrant from the west coast of Europe.

**Seurat L. G.** - Présence de l'*Astrospartus arborescens* (Rondelet) dans la Baie de Castiglione [*Astrospartus arborescens in baja* Castiglione]. 13 fig., 1 pl., Bull. Trav. Stat. Aquicult. et Pêche Castiglione 1932, 2, 135-142. Alger (1934). **b - 591**

Cette découverte vient compléter les données concernant

la distribution de cet échinoderme sur le plateau continental (étage côtier) de l'Afrique mineure.

Travaux d'auteurs précédents où cette espèce a été mentionnée pour la Méditerranée et la Mer Tyrrhénienne. Synonymie. Bibliographie.

**Stechow E.** - Vorkommen eines nordischen Hydroiden, *Corymorpha Sarsi* Steenstrup, im Schwarzen Meer [*Corymorpha Sarsi* Steenstrup, *species nordica in Ponto Euxino reperta*]. Zool. Anz., CVII, 197-198. Leipzig (1934). **b - 592**

**Steuer A.** - Zur planmässigen Erforschung der geographischen Verbreitung des Haliplanktons, besonders der Copepoden [*Inquisitiones methodicæ in distributionem geographicam haliplanctonicam. Agitur particulatim de Copepodis*]. Zoogeographica, I. (1933). **b - 593**

Der Vf. unterscheidet für das Hochseeplankton die folgenden Gebiete: das arktische, das gemässigte, das subtropische, das tropische, das südlich subtropische und das antarktische, und macht weiter eine Differenzierung in eine atlantische und pacifische Region, was an verschiedenen Beispielen und an Hand begleitender Verbreitungskarten gezeigt wird. Nötige Bedingungen für die weitere Entwicklung der Tiergeographie, Entwurf von der Durchführung von Küstenexpeditionen für Untersuchungen.

**Tattersall W. M.** - A Fish New to the British Fauna [*Piscis quidam novus in fauna anglica*]. Ann. and Magaz. Natur. Hist. (10), XIII, 75. London (1934). **b - 594**

*Ruvettus pretiosus* has been collected for the first time in British waters in September 1933. Its geographical distribution, its size.

**Thomsen Ellen** - *Sepia officinalis* L. Found Alive in Danish Waters [*S. o.* L. *viva reperta in aquis Danicis*]. Vidensk. Medd. Dansk naturhist. Foren i. København, 215-218. København (1933-1934). **b - 595**

*Sepia officinalis* was found in Danish waters south of Skagen for the first time on June 20th 1933. Measurements. Other forms of *Sepia* occurring in the North Sea.

**Topsent E.** - Étude d'Eponges littorales du Golfe de Gabès [*Studium de Spongis litoreis in Sinu* Gabès]. 3 fig., Bull. Trav. Stat. Aquicult. et Pêche Castiglione 1932, 2, 69-102. Alger (1934). **b - 596**

La liste des espèces recueillies par M. le Prof. Seurat contient les groupes suivants: Dictyocératines, Monaxonellides, Tétractinellides, Calcaires. Elle apporte une légère contribution à la connaissance des Eponges de la Méditerranée. En particulier, elle mérite une certaine attention du fait que la plupart de ses éléments ont été obtenus à marée basse, notamment dans les prairies de Posidonies et de Caulerpes et dans les chenaux de la Mer des Biban.

**Whitley G. P.** - Marine Zoogeographical Regions of Australasia [*Regiones marinae zoogeographicae Australienses*]. Austral. Natural., VIII, 166-167. Sydney (1932). **b - 597**

**Wulff A.** - Ein Zitterrochen aus der Nordsee [*Torpedo marmorata Maris Nordici*]. 1 Abb., Fischmarkt, I, 1, 17-18. Cuxhaven (1933). **b - 598**

Bericht über zwei Funde von Zitterrochen (*Torpedo marmorata*) im Herbst 1932 in der Nähe von Helgoland und im Herbst 1921 in den dänischen Gewässern bei Frederikshavn, welche die einzigen Angaben über das Vorkommen dieses Fisches in den nördlichen Gewässern zu sein scheinen. Unterscheidung von der benachbarten Form, *T. nobiliana*. Beschreibung einer Besonderheit dieser Formen, eines paarigen elektrischen Organs.

**G. A. S.** - Distribution of Marine Animals and the History of the Continents [*De distributione animalium marinorum et historia terrarum continentium*]. Nature, CXXXIV, 3392, 706. London (1934). **b - 599**

Paper read before Section D (Zoology) of the British Association meeting in Aberdeen. Some reflexions as to the presence of former sea connexions linking up the Atlantic, the Pacific and the Indian Oceans on the basis of a homogen fauna, the Primnoids, found on both sides of Central America and in the Indian Ocean and European Atlantic. The remarkably scattered distribution of the Primnoids sustains the theory of Wegener of the splitting up of a southern continental mass later drifted away in different parts.

## Migrationes.

**Alm Gunnar** - Salmon in the Baltic Precincts [*Salmo in propinquitatibus maris Baltici*]. 18 figs., 33 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, XCII, 1-63. Copenhague (1934). **b - 600**

After some introductory remarks on preceding investigations and proposals on research work the A. here gives a report on his investigations undertaken on scales obtained from 5.249 salmon of which 2.597 are river fish and 2.652 sea fish: I. Age; II. Fishing returns; III. Salmon markings and hook-finds in the Baltic; IV. The Salmon's occurrence and migrations in the Baltic. There is also a proposal to a convention (in German) between 9 Baltic States as to a regulation of the Salmon fishery in the Baltic.

**Beebe William & Tee-Van John** - American Fresh-water Eels in Bermuda [*Anguillæ americanæ ex aqua dulci in Bermudis*]. 1 fig., Bull. New York Zool. Soc., XXXVII, 6, 181-183. New York (1934). **b - 601**

Referring to some records of fresh-water Eels in brackish ponds in Bermuda the AA. here make some reflections as to the migrations and stays of the American and European Eels.

**Berg L. S.** - Summer and Winter Races in Anadromous Fishes [*Pisces anadromi eorumque stirpes hiemales et æstivæ*] (In Russ., Engl. Rés.). Bull. Acad. U. R. S. S., Cl. Sc. Mathém. & Natur., 5, 711-732. Léningrad (1934). **b - 602**

The author claims that among many anadromous Fishes - *Salmonidae, Acipenseridae, Cyprinidae, Percidae*, and *Petromyzontidae* - summer and winter races occur, analogous to those known in crops. He describes these two different races in *Oncorhynchus keta, Salmo salar, S. salar brevipes, Oncorhynchus tschawytscha, Salmo trutta, S. trutta caspicus, Acipenser stellatus, A. guldenstädti, Huso huso, Acipenser ruthenus, Lampetra fluviatilis, Rutilus rutilus caspicus, R. frisii, Barbus brachycephalus, Chalcalburnus chalcoides, Pelecus cultratus, Lucioperca lucioperca.*

**Bjerkan Paul** - Marking Experiments of Plaice (*Pleuronectes platessa*) [*Pleuronectes platessa. Quæstio de marchaturis ad experimentum*]. 3 figs., Rapp. Pr.-Verb. Cons. Expl. Mer. (Scient. Rep. North-Eastern Area Comm. 1934), LXXXVIII, 1-6. Copenhague (1934). **b - 603**

From these experiments undertaken principally during 1931 and 1932 at several localities along the Norwegian coast as is shown in maps indicating the distances passed by the marked Fishes it is seen that the migration generally takes place between the different parts of the coast and later on farther out to sea. It has also been found that there is a distinct difference in the habits of plaice found at the different localities.

**Bowman Alexander** - Marking Experiments on Lemon Soles in Scottish Waters during the Period 1919-1931 (inclusive) [*De marchatione speciei « Pleuronectes microcephalus » in aquis Scotis ab a. 1919 ad a. 1931 inclusum*]. 4 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, 3-ème partie, Appendices 1933-1934, LXXXIX, 53-56. Copenhague (1934). **b - 604**

Methods of recapture and ports of landing. Spawning. Migrations : season, rate, non-migrants. Mean rate of recapture.

**Clarke George L.** - Further Observations on the Diurnal Migration of Copepods in the Gulf of Maine [*Observationes ulteriores de migratione diurna Copepodorum in Sinu* Maine *nomine*]. 6 figs., 4 tabl., Biol. Bull., LXVII, 3, 432-455. Lancaster, Pa. (1934). **b - 605**

Observations were made on the diurnal migration of Copepods in relation to submarine irradiation and other external factors. The variation with depth of the light intensity, the temperature, chemical constituents, and the phytoplankton was observed. The migration of the Copepods was found to be more closely correlated with the changes in the submarine irradiation than with changes in the hydrographic conditions or in the phytoplankton.

**Clarke George L.** - The Diurnal Migration of Copepods in St. Georges Harbor, Bermuda [*De migratione diurna Copepodorum in Sinu* St. Georges]. 1 table, Biol. Bull., LXVII, 3, 456-460. Lancaster, Pa. (1934). **b - 606**

To sum up, the Copepods *Calanopia americana* and *Acartia spinata* were found to exist in St. Georges Harbor in large number near the surface and in the deeper strata at night and to migrate to the bottom at sunrise, the former species apparently burrowing into the mud. The diurnal migration appears to be correlated primarily] with changes in light intensity during the course of the day and is partly under the control of other environmental factors.

**Clarke George L.** - Diurnal Migration of Zoöplankton in Relation to the Penetration of Light, and Studies of the Physiology of Copepods [*De migratione diurna zooplanctonica pro lucis penetratione et studiis physiologicis de Copepodis*]. Woods Hole Oceanogr. Instit., Rep. 1933, App., 20-21. Woods Hole, Mass. (1934). **b - 607**

Some results of the investigation of the diurnal migration of Copepods made from the « Atlantis » using five simultaneous closing nets at a 54-hour station in the deep water Gulf of Maine and at a 24-hour station on Georges Bank. Measurements of the penetration of the blue component of the daylight into the sea by means of photo-electric photometers. Determination of the vertical distribution of the phytoplankton and measurements of additional factors. Development in the laboratory of a suitable technique for raising copepod cultures. Qualitative and quantitative analysis of the plankton catches.

**Clemens W. A. & Clemens L. S.** - Statistical Study of Sockeye Salmon Runs [*Oncorhynchus nerka* Walb. *Studium statisticum eius migrationum*]. Ann. Rep. Biol. Board Canada, 1933, 74. Ottawa (1934). **b - 608**

Results of a statistical study of the annual collection of scales and length, weight, sex data from random samplings of the runs of sockeye salmon to the Fraser, Skeena and Nass Rivers and to Rivers inlet in 1932.

**Davidson Frederick A.** - The Homing Instinct and Age at Maturity of Pink Salmon (*Oncorhynchus gorbuscha*) [*De instinctu Salmonum qui locum suæ originis repetunt. Agitur etiam de ætate maturitatis*]. 10 figs., Bull. Bur. Fish., XLVIII, 15, 1-39. Washington, D. C. (1934). **b - 609**

Marking experiments by removing two fins of the fry of *Oncorhynchus gorbuscha* have been carried out at the Federal hatchery on the Duckabush River in the State of Washington and one in Snake Creek at Olive Cove, Alaska. From the results obtained it is conceivable that the extent to which the pink salmon return of their parent streams to spawn may be dependent upon the proximity of other pink salmon streams in the vicinity. It may also be assumed with relative certainty that the pink salmon consistently mature at the close of their second year of life.

**Elsey C. R.** - On the Migration of Oyster Larvae [*De larvis ostreæ earumque migratione*]. Ann. Rep. Biol. Board Canada, 1933, 77-78. Ottawa (1934). **b - 610**

Account of a test provided in Ladysmith Harbour in 1932 in order to study the distribution and the migration of oyster larvae ; coincidence between heaviest spatting and the paths of maximum current velocity.

**Fage Louis** - Migrations verticales périodiques des animaux benthiques littoraux [*Animalia benthonica litorea eorumque migrationes verticales periodicæ*]. 7 figs., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, Append., 60-69. Copenhague (1933). **b - 611**

Discussion des résultats de pêches pélagiques faites pendant plusieurs années à Banyuls-sur-Mer qui ont fait l'objet de publications spéciales sur les Annélides, les Pycnogonides et les Crustacés. Ces pêches qui se faisaient la nuit, ont procuré une grande majorité d'espèces franchement benthiques et qui se prennent de jour sur le fond. Le rythme nycthéméral des espèces benthiques littorales étudiées, lié au fonctionnement du système nerveux, est déterminé par les réactions à l'éclairement ; les transformations internes liées au développement des gonades peut modifier l'allure de ce rythme ; la crise de maturation sexuelle expliquerait la subordination de ce rythme à un rythme saisonnier à longues périodes. La prédominance si fréquente des mâles dans le plancton serait causée par le métabolisme propre à chaque sexe et, accessoirement, par le dimorphisme qui en résulte.

**Foerster R. E.** - The Return of Adult Sockeye Salmon from a Known Escapement [*Oncorhynchus nerka* Walb. *Quæstio de eius reditu a quodam noto refugio*]. 1 table, Ann. Rep. Biol. Board Canada, 1932, 86-87. Ottawa (1933). **b - 612**

Data on the returns of marked seaward migrating Salmons by removal of certain fins, carried on at Cultus Lake for a number of years. The recoveries were : Puget Sound, Strait of Juan de Fuca, Bellingham and Fraser River.

**Foerster R. E.** - Downstream Migration [*Oncorhynchus nerka* Walb. *De migratione secundum flumen*]. 1 table, Ann. Rep. Biol. Board Canada, 1933, 79-80. Ottawa (1934). **b - 613**

Results of the regular annual count of downstream migrating sockeye salmon from Cultus Lake made during the spring of 1933 in order to determine the number of survivors from the propagation of 1931-32, combined natural and artificial.

**Foerster R. E.** - The Recovery of Marked Sockeye Salmon [*Oncorhynchus nerka* Walb. *Quæstio de iteratis capturis*]. 1 table, Ann. Rep. Biol. Board Canada, 1933, 80-81. Ottawa (1934). **b - 614**

Report of the returns obtained in the commercial fishery after the marking of young salmon in Cultus Lake with the purpose to establish, firstly, the reliability of the « parent stream » theory, and, secondly, the percentage return of adult sockeye from a known escapement of seaward migrants. Similar marking was done at Eagle River on the Shuswap system to obtain data relative to the success of restocking upper Fraser spawning areas with eggs from the lower Fraser. An account is given of the recoveries made both in the fishing areas and at the spawning grounds.

**Foerster R. E. & Pritchard A. D.** - Report on the Marking of Pink Salmon Fingerlings at Cultus Lake in 1932 [*Relatio de marchatura larvarum ad speciem « Oncorhynchus gorbuscha » pertinentium in lacu* Cultus *a. 1932*]. 1 table, Ann. Rep. Biol. Board Canada, 1933, 83-84. Ottawa (1934). **b - 615**

Results of the marking and release of a number of fingerlings reared from pink salmon eggs. Three noteworthy points observed in connection with returns, regarding the life-history of salmon, their migration and the « parent stream » theory.

**Huntsman A. G.** - Herring and Water Movements [*Aquarum motus eorumque influentia in aringum*]. 4 figs., 2 tabl., James Johnstone Mem. Vol., 81-96. Liverpool (1934). **b - 616**

Study of the movement of the Herring (*Clupea harengus*) in the Passamaquoddy region of southern New Brunswick, during the period in his life history from the stage of metamorphosis up to the stage of approaching sexual maturity, on hand of capture of herring in the stationary weirs. Temperature, feeding, light, enemies, and tidal currents do not seem to be directly effective in moving the fish any considerable distances. Direct observation in a cove or small inlet shows that the herring is affected in distribution by differential movements of the waters layers, set up by fresh water inflow.

**Järvi T. H.** - Angaben über das Alter der in Finnland gefangenen Lachse vor der Auswanderung, nebst einigen Bemerkungen über ihre Wanderungen [*De ætate aliquorum Salmonum in Finlandia captorum ante exitum. Adiunguntur observationes de eorum migrationibus*]. 2 Abb., Rapp. Pr.-Verb. Cons. Expl. Mer, XCI, 11-13. Copenhague (1934). **b - 617**

Unter Hinweisung auf den Vortrag von Dr. Alm über die Biologie des Ostsee- Lachses (Rapp. Pr.-Verb., XCII) zeigt der Vf. an Hand reichen Materiales aus den finnländischen Flüssen, dass zwischen den nördlichen und den südlichen Lachsen in Bezug auf das Alter vor der Auswanderung in die Dauer ihres Aufenthaltes im Meere sowie die Wachstumsgeschwindigkeit ein grosser Unterschied vorhanden ist. Vermutung zwei verschiedener Wanderungsgebiete, eines im Westen (dem Bottn. Meerbusen und den südl. Teil der Ostsee), und eines im Osten (dem Finnischen und Rigaischen Meerbusen); ihr Zusammenhang mit den Strömungen des Oberflächenwassers.

**McC. Mottley C.** - The Spawning Run of Kamloops Trout at Paul Creek [*De migratione gamica speciei « Salmo kamloops » in* Paul Creek]. 1 table, Ann. Rep. Biol. Board Canada, 1933, 88. Ottawa (1934). **b - 618**

1. Time and duration of the run. 2. The size of the run. 3. Proportions of the sexes. 4. Age composition of the run. 5. Frequency of spawning. 6. General results.

**McC. Mottley C.** - The Factors Influencing the Spawning Migration of Rainbow Trout [*Factores qui influunt in migrationem generandi causa, speciei « Salmo irideus »*]. Ann. Rep. Biol. Board Canada, 1933, 90. Ottawa (1934). **b - 619**

Account of an investigation on the factors which influence the spawning migration of the Kamloops trout at Paul Lake with particular regard to the part played by temperature.

**McKenzie R. A.** - Cod Tagging Along Outer Coast of Nova Scotia [*De marchatione speciei « Gadus morrhua »*]. Ann. Rep. Biol. Board Canada, 1933, 27-28. Ottawa (1934). **b - 620**

Account and illustration of the returns from preliminary and exploratory tagging of the cod along the outer coast of Nova Scotia.

**Pritchard A. L.** - The Tagging of Spring Salmon in British Columbia in 1929 and 1930 [*De marchatione speciei « Oncorhynchus tschawytscha » in Columbia Britannica a. 1929 et 1930*]. 1 table, Ann. Rep. Biol. Board Canada, 1932, 95-96. Ottawa (1933). **b - 621**

Reports, given in a table, of spring salmon tagging made in order to establish their principal routes of migration.

**Pritchard A. L.** - The Natural Run of Pink Salmon (*Oncorhynchus gorbuscha* Walbaum) in Massett Inlet During 1932, with Summary Showing the Efficiency of Natural Propagation [*De migratione naturali speciei « Oncorhynchus gorbuscha »* Walbaum *in* Massett Inlet *a. 1932. Compendium efficacitatem propagationis naturalis ostendens*]. 1 table, Ann. Rep. Biol. Board Canada, 1932, 96-97. Ottawa (1933). **b - 622**

Results and discussion of experiments begun with installation of counting fences in Massett Inlet, Queen Charlotte islands, during the spring 1930. Enumeration of the spawning adults in the fall and count of the down-stream fry migrants in the spring 1931. Examination of the adult run in the fall of 1932. Since all data at present on hand indicate that the pink salmon matures at the end of the second year, observations can be considered as reflecting the complete cycle of development. The results for the cycle are tabulated.

**Pritchard A. L.** - The Return in 1932 from the Marking of Pink Salmon Fry Migrants in 1931 [*De larvis marchatis migrantibus a. 1931 ad speciem « Oncorhynchus gorbuscha » pertinentibus earumque reditu a. 1932*]. Ann. Rep. Biol. Board Canada, 1932, 97-98. Ottawa (1933). **b - 623**

Results of an investigation carried on by means of removing the adipose fins from 185.000 salmon fry during the down-stream migration at Massett Inlet, in the spring of 1931 in order to establish definitely at what age this fish would reach maturity and whether they would return when mature to spawn in the same area. It is shown that there is a strong tendency on the part of the pink salmon in this locality to return to their native spawning area.

**Pritchard A. L.** - Natural Run of Pink Salmon [*Oncorhynchus gorbuscha* (Walbaum)] in Massett Inlet [*De migratione naturali speciei « Oncorhynchus gorbuscha »* (Walbaum) *in* Massett Inlet]. Ann. Rep. Biol. Board Canada, 1933, 92. Ottawa (1934). **b - 624**

Account of investigation of the natural runs of pink salmon commenced with the installation of adult and fry counting fences in McClinton creek, Massett inlet, in the summer of 1930. During the autumn of 1932 another adult migration was examined and in the spring of 1933 the fry resulting from there were counted. The results of this investigation are reported in the present paper.

**Pritchard A. L.** Return of Marked Pink Salmon in 1933 [*« Oncorhynchus gorbuscha » anno 1933 marchatus iterum captatus*]. 1 table, Ann. Rep. Biol. Board Canada, 1933, 94. Ottawa (1934). **b - 625**

Summary of recoveries of the release in the spring of 1931 of the fry resulting from the transfer of eggs from the Tlell River to McClinton Creek on the Queen Charlotte Islands and marked by the removal of the adipose and left ventral fins to ensure identification.

**Pritchard A. L.** - Pacific Salmon Migration: The Tagging of the Coho Salmon in British Columbia in 1929 and 1930 [*De migratione salmonis oceani Pacifici : De marchatione speciei « Oncorhyn-*

*chus gorbuscha » in Columbia Britannica a. 1929 et 1930*]. 4 figs., 8 tabl., Biol. Board Canada, Bull., XL, 1-24. Ottawa (1934). **b - 626**

The experiments undertaken are expressed in tables giving localities and dates of tagging and recaptures as well as weight of the fish when tagged. The distances traversed from the time of tagging to recapture have been reported considerably smaller than most of those for the spring salmon but greater than those for the pinks and the chums. As the location of the tagging bases moved southward the returns from the northern districts decreased and those from the southern increased. Although these experiments indicate that the runs of coho are mainly local, other reports have demonstrated that in many cases, migrations do cross international boundaries.

**Pritchard A. L.** - Pacific Salmon Migration: The Tagging of the Spring Salmon in British Columbia in 1929 and 1930 [*De migrationibus Salmonis Oceani Pacifici. De marchatione speciei « Oncorhynchus tschawytscha » in Columbia Britannica a. 1929 et 1930*]. 3 figs., 9 tabl., Biol. Board Canada Bull., XLI, 1-31. Ottawa (1934). **b - 627**

Lists, maps and tables concerning numbers tagged and recaptured with indication of time, localities, weights at tagging and recapture, percentage of recapture etc. General discussion of results obtained and of Spring Salmon migration.

**Sylvest E.** - Les causes des migrations de l'anguille, jeune et adulte [*Causæ migrationum anguillæ juvenis et adultæ*]. Bull. Franç. de Piscicult., juin (1933). **b - 628**

**Tåning Vedel Å.** - Marking Experiments with Plaice in East Icelandic Waters [*Pleuronectes. Marchationes ad experimentum perfectæ in Islandia orientali*]. 2 figs., 12 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer (Scient. Rep. North-Western Area Comm. 1930-1932), LXXXVI, 1-13. Copenhague (1934). **b - 629**

Account of the results obtained from the marking experiments of 1931 compared with those of 1905. Migrations: Direction, length, velocity, season. Age and size of plaice when migrating from the East coast. Rate of growth in length. Intensity of fishery.

**Tåning Vedel Å.** - Survey of Long Distance Migrations of Cod in the North Western Atlantic according to Marking Experiments [*Inspectio migrationum maximo spatio in Atlanticum nord.-occid. speciei « Gadus morrhua » per marchationem*]. 3 figs., 4 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, 3-ème partie, Appendices, 1933-1934, LXXXIX, 5-11. Copenhague (1934). **b - 630**

Short résumé of the results obtained from the marking experiments at the Faroes, Iceland and Greenland during recent years expressed in tables and maps. Necessity of extending the marking experiments into the entire area of the North Atlantic in order to get a clearer view of the connection between migration and fluctuations.

**Templeman W.** - Migrations of the Lobster [*De migrationibus homari*]. Ann. Rep. Biol. Board Canada, 1932, 40-41. Ottawa (1933). **b - 631**

Results of the observations on the returns from the 950 new-shell Lobsters tagged at the Magdalen Island in 1931 and 450 Lobsters tagged in Malpeque Bay.

**Vladykov V. D.** - Seasonal Distribution of the Haddock of the Halifax Area [*De distributione speciei « Gadus æglefinus » pro anni tempore per regionem* Halifax]. Ann. Rep. Biol. Board Canada, 1932, 41. Ottawa (1933). **b - 632**

(1) Spring (spawning) run, (2) Summer run, and (3) Fall-winter run.

**White H. C.** - Observations on Atlantic Salmon in Apple River, N. S. [*Observationes circa salmonem atlanticum in flumine* Apple]. Ann. Rep. Biol. Board Canada, 1932, 42. Ottawa (1933). **b - 633**

Observations on a native stock of Salmons in natural conditions (1) Observations on smolts, (2) utilization of the Apple River by the salmon for spawning, (3) results of tagging of salmon.

**White H. C.** - A Spawning Migration of Salmon in E. Apple River [*De migratione gamica salmonis in flumen* Apple *orient.*]. Ann. Rep. Biol. Board Canada, 1933, 41. Ottawa (1934). **b - 634**

New observations on the run of salmon in the East Apple river which represent an evidence in substantiation of the theory advanced that the presence of salmon parr in a stream is a factor causing adult salmon to ascend certain streams.

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**V. E.** - The Marking of Fishes in the Barents Sea [*De marchatione Piscium in Mari* Barents]. (In Russ. & Engl.). Bull. Arct. Inst., 1, 18 & 43. Leningrad (1934). **b - 635**

Marking operations (on 21.897 Fishes) carried out from 1928 to 1932 by the Oceanographic Institute show that the cod migrates in autumn and winter to the Norwegian shores for spawning.

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**An.** - Whale-Marking in South Georgia [*De marchatione Balænarum in Georgia merid.*]. Nature, CXXXIV, 3390, 599. London (1934). **b - 636**

Short note on the experiments undertaken by the Discovery Committee at the Marine Biological Station in South Georgia. A new method indicated that promises good results.

# PLANCTON ET BENTHOS.

**Aikawa H.** - On the Planktology of Okhotsk Sea in Autumn [*Agitur de plancton maris* Okhotsk *autumno*]. (In Jap., Engl. Rés.). 2 figs., 3 tabl., Bull. Jap. Soc. Scient. Fish., II, 4, 175-182. Tokyo (1933). **b - 637**

Autumnal plankton associations observed in Okhotsk Sea in 1928, '29, and '32 may be referred to three main water masses, viz. 1) Oyazio waters, 2) Tusima current waters and 3) the neritic waters in the northern part of Okhotsk Sea. Constitution and characteristics of these communities.

**Aikawa H.** - On the Quantitative Analysis of Plankton Associations in the Seas Surrounding Japan [*De analysi quantitativa consociationum planctonicarum in maribus prœter Japoniam*] (In Jap., Engl. Rés.). Journ. Imp. Fish. Exp. Stat., 5, 237-272. Tokyo (1934). **b - 638**

**Allen W. E.** - Marine Plankton Diatoms of Lower California in 1931 [*Diatomeœ planctonicœ marinœ in California inferiore a. 1931*]. 1 fig., Bot. Gaz., XCV, 3, 485-492. Chicago, Ill. (1934). **b - 639**

Great abundance of plankton Diatoms was found in surface catches along the coast of Lower California from a locality near Pt. San Eugenio to a locality near Pt. San Lazaro, a distance of more than 100 miles. Greatest productivity appeared near shore. The diatom populations were similar to those of the California coast in respect to component genera and species.

**Bernstein Tamara** - Zooplankton des nördlichen Teiles des Karischen Meeres [*Agitur de zooplancton in parte septentrionali Maris* Kara]. (Russ. Text, Dtsch. Rés.) 14 Abb., 8 Tab., Trans. Arct. Inst., IX, 3-58. Leningrad (1934). **b - 640**

Beobachtungen über das auf den Expeditionen 1930 und 1931 in der nördlichen Hälfte des Karischen Meeres sowie im Gebiet zwischen Franz-Joseph Land und der Insel Wiese gesammelte Material: die ausgeführten Stationen, die zur Planktonsammlung gebrauchten Netze, Anzahl der Formen, welche in den Proben der Schnitte 1931 enthalten waren, mit einem vollständigen Verzeichnis der Zooplankton-Formen des beobachteten Materiales sind auch angegeben. Der Einfluss der Zirkulation des Golfstromwassers im Polarbecken auf die Zusammensetzung des beobachteten Planktons ist besprochen. Von den beschriebenen Arten ist eine Art, *Fritillaria polaris* sp. nov., neu.

**Braarud Trygve** - A Note on the Phytoplankton of the Gulf of Maine in the Summer of 1933 [*Notœ de phytoplancton in Sinu* Maine *œstate 1933*]. 3 tabl., Biol. Bull., LXVII, 1, 76-82. Lancaster, Pa. (1934). **b - 641**

The few observations made by the A. suggest that there exist considerable fluctuations in the composition of the phytoplankton of the waters of the Gulf of Maine and adjacent areas in the summers of different years, perhaps not so much in a purely qualitative respect as in the relative abundance of the various species.

**Braarud Trygve** - Investigations of Phytoplankton [*Inquisitiones in phytoplancton*]. Woods Hole Oceanogr. Instit., Rep. 1933, App., 19. Woods Hole, Mass. (1934). **b - 642**

Results of the examination by means of centrifuging and subsequent counting of about 100 samples of sea water, collected during the work of the International Passamaquoddy Fisheries Commission for quantitative studies of the microplankton of the Bay of Fundy and the Gulf of Maine. Some information on twenty samples from two stations in the Gulf of Maine. Fairly large variations of the quantity of phytoplankton at the same locality from one year to another.

**Clarke George L.** - Diurnal Migration of Plankton in the Gulf of Maine and its Correlation with Changes in Submarine Irradiation [*De migratione planctonica diurna in Sinum* Maine *eiusque correlatione cum variationibus irradiationis submarinœ*]. 5 figs., 6 tabl., Biol. Bull., LXV, 3, 402-436. Lancaster, Pa. (1933). **b - 643**

The vertical distribution is studied in particular for the following species: *Centropages typicus*, *Calanus finmarchicus* and *Metridia lucens*. The adult females of *Metridia* exhibited the most marked diurnal migration, the level of maximum abundance rising in the afternoon and during the night and falling in the morning. These movements were found to coincide to a considerable extent with changes in submarine irradiation. This investigation confirms the idea that light is the most important factor controlling diurnal migration.

**Clarke George L.** - Vertical Distribution and Vertical Migrations of Plankton, in the Atlantic Basin, in Relation to Penetration of Light [*De distributione et migrationibus verticalibus planctonicis in bacinum atlanticum earumque correlatione cum lucis penetratione*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 32. Woods Hole, Mass. (1933). **b - 644**

Brief account of collections made to determine the vertical distribution of zooplankton at 10 « Atlantis » stations, the vertical distribution of phytoplankton, determined at one station, and of the results of measurements of the intensity of daylight falling on deck and penetrating to depths down to 175 meters beneath the sea surface, made at 13 stations.

**Clarke George L.** - Vertical Distribution and Diurnal Migrations of Plankton in Relation to the Penetration of Light [*De distributione et migrationibus diurnis planctonicis earumque correlatione cum lucis penetratione*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 40-41. Woods Hole, Mass. (1933). **b - 645**

Information as to the methods of investigation and analysis used during the study of diurnal migration and vertical distribution of plankton in the Gulf of Maine.

**Clarke G. L. & Oster R. H.** - The Penetration of the Blue and Red Components of Daylight into Atlantic Coastal Waters and its Relation to Phytoplankton Metabolism [*Agitur de penetratione componentium ceruleorum et rubrorum lucis diurnœ in aquas litoreas Oceani Atlantici eiusque correlatione cum metabolismo phytoplanctonico*]. 6 figs., 4 tabl., Biol. Bull., LXVII, 1, 59-75. Lancaster, Pa. (1934). **b - 646**

Apparatus and methods used in photoelectric measurements of blue and red submarine irradiation at two stations in the Gulf of Maine and at four localities in the Woods Hole region. Five bodies of water are considered according to their decreasing transparency to both blue and red light. The ratios of the transmissive exponents for red light to those for blue light in each locality vary from 2.9 to 1.2, the higher values being characteristic of clearer water.

Note on the metabolism of the phytoplankton. Vertical distribution of the phytoplankton in the Gulf of Maine in relation to the penetration of light.

**Collin G., Drummond J. C., Hilditch T. P. & Gunther E. R.** - Observations on the Fatty Constituents of Marine Plankton. II. General Character of the Plankton Oils [*Observationes circa constituentes crassos plancton marini. II. Caracteres generales oleorum planctonicorum*]. 3 tabl., Journ. Exp. Biol., XI, 2, 198-202. London (1934). **b - 647**

Extraction. General character of the plankton oils. Fatty acids. Non-saponifiable constituents of zooplankton oil.

**Cooper L. H. N.** - The Variation of Excess Base with Depth in the English Channel with Reference to the Seasonal Consumption of Calcium by Plankton [*Agitur de basis excessus variationibus pro Freti Britannici profunditate quoad calcii consumptionem per plancton pro anni tempore*]. 3 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 747-754. Plymouth (1934). **b - 648**

In the English Channel has been established by a statistical method a small difference in specific alcalinity between the surface and bottom waters during the summer. This is attributed to a removal of calcium from the surface waters by plankton. An attempt has been made to calculate the production of calcareous plankton.

**Cooper L. H. N.** - The Determination of Phosphorus and Nitrogen in Plankton [*Phosphori et azoti in plancton determinatio*]. 2 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 755-759. Plymouth (1934). **b - 649**

Phosphorus in plankton has been determined by digestion with sulphuric acid and perhydrol followed by colorimetric determination. Nitrogen has been readily determined by the micro-Kjeldahl method of Parnas and Wagner.

**Cupp Easter E.** - Analysis of Marine Plankton Diatom Collections Taken from the Canal Zone to California during March, 1933 [*Diatomeæ marinæ planctonicæ. Analysis earum collectionum captarum in regione a* Canal Zone *ad Californiam mense Martio 1933*]. 1 fig., 1 table, Trans. Amer. Microscop. Soc., LIII, 1, 21-29. Lancaster, Pa. (1934). **b - 650**

Forty-two surface catches of Diatoms and Dinoflagellates, taken in this region, were examined. *Chaetoceros* sp., *Ch. curvisetus* and *Ch. decipiens* were the most abundant species with the group *Chaetoceros* species far in the lead.

Most of the species and genera recorded are well represented along the California coast.

No correlation between diatom or dinoflagellate abundance and temperature was evident. The dinoflagellate production was negligible.

**Dakin W. J.** - The Plankton Calendar of the Continental Shelf of the Pacific Coast of Australia at Sydney Compared with that of the Irish Sea [*Kalendarium planctonicum plateæ continentalis ad litora australiensia Oceani Pacifici apud* Sydney, *comparatum cum kalendario planctonico litorum Maris Hiberni*]. 3 figs., James Johnstone Mem. Vol., 164-175. Liverpool (1934). **b - 651**

The first striking feature of the plankton catches made at Sydney was the presence not only of the same genera of plants and animals as in British seas but often of the same species. The second feature to which the A. would call attention here is the demonstration for the first time in the Southern Hemisphere of a plankton curve of production which runs in a manner strikingly similar to that worked out by the Liverpool School for the Irish Sea.

The main interest in these comparisons seems to the A. to lie in their bearing upon the problem of the causation of the plankton rhythm.

**Dakin W. J. & Colefax A.** - The Marine Plankton of the Coastal Waters of New South Wales. I. The Chief Planktonic Forms and their Seasonal Distribution [*Plancton marinum aquarum litorearum in* New South Wales. *I. Præcipuæ formæ planctonicæ earumque distributio pro anni tempore*]. Proc. Linn. Soc. N. S. Wales, LVIII, 186-222. Sydney (1933). **b - 652**

**Davidson V. M.** - The Summer Phytoplankton in the Region of Halifax [*De phytoplancton æstivo tempore in regione* Halifax]. Ann. Rep. Biol. Board Canada, 1932, 22-23. Ottawa (1933). **b - 653**

Results of the study of collections of phytoplankton made with N° 18 net at different stations; quantitative distribution; study of the nannoplankton.

**Drummond J. C. & Gunther E. R.** - Observations on the Fatty Constituents of Marine Plankton. III. The Vitamin A and D Content of Oils derived from Plankton [*De observatis crassis constituentibus planctonicis marinis. III. Vitaminæ A et D quæ in oleis a plancton derivatis continentur*]. 3 tabl., Journ. Exp. Biol., XI, 2, 203-209. London (1934). **b - 654**

The A. has examined for vitamin A and vitamin D the oils separated from phytoplankton and zooplankton respectively, in view of the relations which are believed to exist between the vitamin content of the diet and that of the fats stored in an animal's body.

**Fage L.** - Pêches planctoniques à la lumière, effectuées à Banyuls-sur-Mer et à Concarneau. III. Crustacés [*Piscationes planctonicæ, lucis auxilio peractæ in* Banyuls-sur-mer *et in* Concarneau. *III. Crustacea*]. 14 fig., Arch. Zool. Exp. et Gén., LXXVI, 3, 105-248. Paris (1933). **b - 655**

Liste des espèces recueillies aux différentes stations. Description des espèces appartenant aux groupes suivants : Ostracodes, Mysidacés, Cumacés, Isopodes, Amphipodes. Remarques générales : rythme nycthéméral, rythme saisonnier, rythme sexuel. Bibliographie.

**Fage L.** - La phase pélagique des Ostracodes benthiques littoraux [*Pelagica phasis in Ostracodis benthonicis litoreis*]. Ann. Sc. Natur., Zool., X$^e$ sér., XVII, 249-261. Paris (1934). **b - 656**

**Fasmer H.** - The Distribution of the Phytoplankton in the Strait of Georgia [*De distributione phytoplanctonica per Georgianum Fretum*]. Ann. Rep. Biol. Board Canada, 1932, 85. Ottawa (1933). **b - 657**

Results of the analysis of samples of water taken in the Strait of Georgia in order to determine and to count the phytoplankton, and to study variations in number and in composition at different depths. An example of similar variations is given.

**Fasmer H.** - Quantitative Plankton Studies in the Strait of Georgia [*Studia planctonica quantitativa in Freto Georgiano*]. Ann. Rep. Biol. Board Canada, 1933, 78-79. Ottawa (1934). **b - 658**

Results of the completed counting and identification of the phytoplankton taken during the oceanographical investigation of the Strait of Georgia in 1932.

**Fish C. J.** - The Biology of Zoöplankton in the Gulf of Maine and Bay of Fundy with Special Reference to Production and Dispersal [*De biologia zooplanctonica in Sinu* Maine *et in Baja* Fundy. *Agitur particulatim de zooplanctonica productione et dispersione*]. Woods Hole Oceanogr. Instit. Rep. 1933, App., 21-22. Woods Hole, Mass. (1934). **b - 659**

Brief account of studies accomplished as a part of an oceanographical program sponsored by the International Passamaquoddy Fisheries Commission, and concerned with: Physical hydrography. Volume of zoöplankton: a) quantitative distribution, and b) annual fluctuation. Biology of zoöplankton: the biology of some species endemic in the Gulf of of Maine.

**Frost N., Lindsay S. T. & Thompson H.** - Plankton. 6 maps, Rep. Newfoundland Fish. Res. Comm., Ann. Rep., II, 2, 47-59. Plymouth (1934). **b - 660**

After some general remarks on the distribution of the plankton in arctic waters and in those of Newfoundland, the authors give an analysis of various groups in the plankton observed, i. e.: *Medusae, Ctenophora*, etc. Worm-like organisms, Crustaceans, *Copelata: Oikopleura vanhöffeni, Fritillaria, O. labradoriensis, O. dioica*. Distribution of cod eggs and larvae in 1933.

**Gardiner A. C.** - Variations in the Amount of Macroplankton by Day and Night [*De macroplancton eiusque variationibus quantitativis pro die nocteque*]. 3 figs., 2 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 559-567. Plymouth (1934). **b - 661**

Observations were made off Liverpool, Nova Scotia, in May, 1932. The common species were *Thysanoëssa raschii, Th. inermis, Sagitta elegans, Calanus finmarchicus* and *C. hyperboreus*. All the above occurred in the collections made during the night in larger numbers than in those in the daytime. No such discrepancy appeared in the case of the fish ova.

**Gemeinhardt K.** - Biologische Sonderuntersuchungen. Lief. 3. Die Silicoflagellaten des Südatlantischen Ozeans [*Inquisitiones biologicæ. Fasc. 3. Silicoflagellata Oceani Atlantici merid.*]. Wiss. Ergebn. Dtsch. Atlant. Exped. a. d. Forsch.-u. Vermessungsschiff « Meteor », 1925-1927, XII, 1, 274-312. Walter de Gruyter. Berlin u. Leipzig (1934). **b - 662**

**Gran H. H.** - Investigation of Phytoplankton [*Inquisitiones in phytoplancton*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 41. Woods Hole, Mass. (1933). **b - 663**

Information of an intensive quantitative survey of the horizontal and vertical distribution of phytoplankton in the parts of the Gulf of Maine, and of Georges Bank visited by the « Atlantis » in August 1932, carried out by the author, as well as on a series of experiments on the influence of soluble organic compounds of iron on cultures of planktonic Diatoms.

**Gunther E. R.** - Observations on the Fatty Constituents of Marine Plankton. I. Biology of the Plankton [*Observationes circa maris crassos constituentes planctonicos. I. Biologia planctonica*]. 3 figs., 13 tabl., Journ. Exp. Biol., XI, 2, 173-197. London (1934). **b - 664**

Collections of phyto- and zooplankton made off the Isle of Man were examined for vitamin content, and for chemical and biological characteristics. The important species entering into the composition of the plankton are noted and a new method of estimating plankton catches is described.

The works of preceding investigators on the subject under consideration.

**Hart T. John** - On the Phytoplankton of the South-West Atlantic and the Bellingshausen Sea, 1929-31 [*Phytoplancton Oceani Atlantici sud-occid. et Maris* Bellingshausen, *a. 1929-31*]. Discovery Rep., (Govmt. Depend. Falkland Isls.), VIII, 1-268. Univ. Press. Cambridge (1934). **b - 665**

Methods and instruments. Different sections of the different plankton types. Necessary conditions for the production of plankton, factors as currents, ice, weather, light etc. In an appendice the plankton production of the Ost-Cumberlandbay (South Georgia) and the causes of its scarcity are dealt with.

**Harvey H. W.** - Annual Variation of Planktonic Vegetation, 1933 [*De variationibus annuis vegetationis planctonicæ a. 1933*]. 5 figs., 1 table, Journ. Mar. Biol. Assoc., XIX, 2, 775-792. Plymouth (1934). **b - 666**

Observations were made at positions off Plymouth throughout the year 1933. The spring diatom outburst. The first outburst of larvae. The outburst of *Rhizosolenia alata* in May and of *R. stolterfothii* in June. The August scarcity. The autumn and winter conditions. The inshore station.

**Hessle Chr. & Vallin Sten** - Undersökningar över plankton och dess växlingar i Oestersjön under åren 1925-1927. [*De inquisitionibus in plancton eiusque variationibus in Baltico a. 1925-1927*] (Engl. Rés.). 42 figs., Appendix with 24 tabl. and 3 maps on pl., Svenska Hydrogr. Biol. Komm. Skr., Ny ser.: Biol., I, 5, 1-132. Stockholm (1934). **b - 667**

I. The extent and methods of the investigations. II. Topography and hydrography. III. Phytoplankton. IV. The different species of zooplankton. V. The origin and distribution of the Baltic plankton. VI. The composition of plankton in the different parts of the Baltic. VII. Comparison between the plankton production during the years 1925, 1926 and 1927. VIII. Herring fishery and plankton production in the Baltic. Literature.

**Issel Raffaele** - Materiali per la conoscenza delle caratteristiche locali e delle variazioni a lungo periodo nel plancton mediterraneo [*Res collectæ ad cognoscendas præcipuitates loci, variationesque maximo spatio temporis, in plancton Maris Mediterranei*]. (Ricerche fatte a Genova - S. Giuliano), Boll. Mus. Labor. Zool. Anat. Comp. R. Univ. Genova, XIII, 73, 3-14. Genova (1933). **b - 668**

Descrizione sommaria delle variazioni constatate nel microplancton di Genova, tra il 1915 e il 1933. Le invasioni in massa di *Chaetoceros rostratus* risulterebbero comuni a tutto il Mediterraneo, ma solo dal 1923 in poi. Fra Genova e il Golfo interno di Napoli si notano differenze locali caratteristiche. Vien segnalato l'effetto di anormali piovosità sulla produzione invernale di *Thalassiothrix*.

**Jeffers G. W. & Jeffers A. M.** - The Distribution of Zooplankton in Passamaquoddy Bay [*De distributione zooplanctonica per Bajam* Passamaquoddy]. Ann. Rep. Biol. Board Canada, 1933, 23-24. Ottawa (1934). **b - 669**

Horizontal distribution of zooplankton: results of observations on about 40 stations both in the passages and inside and outside the passages in Passamaquoddy Bay. Vertical distribution of zooplankton: results of two series of horizontal tows of ten-minute duration made at various depths.

**Kearney C. E.** - The Animal Plankton of the Halifax Area [*Zooplancton in regione* Halifax]. Ann. Rep. Biol. Board Canada, 1932, 26. Ottawa (1933). **b - 670**

Important position of the macroplankton in the metabolism of the sea. Comparative observations on tows taken monthly in various points off the southeast coast of Nova Scotia. *Calanus finmarchicus*, the dominant species in the plankton.

**Kearney C. E.** - Animal Plankton of the Halifax Region [*Zooplancton in regione* Halifax]. Ann. Rep. Biol. Board Canada, 1933, 24-25. Ottawa (1934). **b - 671**

Account of a quantitative comparison of tows taken off the Nova Scotia coast in the Halifax area during May, June, and July. Some information as to the occurrence of *Calanus finmarchicus*, *C. hyperboreus*, and *Sagitta elegans* in the area under consideration.

**Kokubo Seiji & Tamura Tadashi** - On the Seasonal and Vertical Distribution of the Plankton of Aomori Bay [*De distributione planctonica verticali pro anni tempore per Bajam* Aomori]. 31 figs., 31 tabl., Sc. Rep. Tôhoku Imp. Univ., Fourth Ser., Biol., VIII, 4, 297-333. Sendai, Japan (1934). **b - 672**

Hydrographical conditions: temperature, specific gravity, dissolved oxygen; change of pH; colour and transparency of sea water. Results of observation. General remarks: seasonal change in quantity; change of vertical distribution; dominating species; relation of plankton to hydrographical conditions.

**Künne C.** - Ueber die Leptomedusen *Helgicirrha Schulzii* Hartlaub und *Eirene viridula* (Péron und Lesueur). Zool. Anz., CVI, 27-34. Leipzig (1934). **b - 673**

**Lebour M. V.** - Plankton. - School. Sc. Rev., XV, 58. London (1933). **b - 674**

**Mackintosh N. A.** - Distribution of the Macroplankton in the Atlantic Sector of the Antarctis [*Macroplancton. De eius distributione per zonam atlanticam Oceani Antarctici*]. Discovery Rep. (Govmt. Depend. Falkland Isls.), IX, 65-160, Univ. Press. Cambridge (1934). **b - 675**

The conical stramin net used. The species identified. Diurnal variations. Categories of the relative abundance of species according to the average number per haul. Distribution and abundance of all identified species. Plankton communities. Connection between macroplankton and the distribution of Whales.

**Oster Robert H.** - Penetration of Red Light into the Sea and Its Relation to the Phytoplankton Population [*De lucis rubræ penetratione in mare eiusque correlatione cum fauna et flora phytoplanctonica*]. Woods Hole Oceanogr. Instit., Rep. 1933, App., 26-27. Woods Hole, Mass. (1934). **b - 676**

Results of the measurements of the penetration of the red light in the sea-water by means of the photo-electric method of Poole and Atkins. Attempt has been made to determine the possible relation between the intensity of the red light and the population density of phytoplankton on hand of samples of phytoplankton collected at different depths. Some results of the investigation carried out.

**Parenzan Pietro** - Rotazione biologica naturale. Successione delle « facies » bentoniche marine [*De rotatione biologica naturali. Facies benthonicæ marinæ earumque successiones*]. Boll. Zool., V, 4, 137-144. Napoli (1934). **b - 677**

L'A. studia il fenomeno del susseguirsi di determinate facies bentoniche in una data zona e indica tale fenomeno col nome di « rotazione biologica naturale ». Egli passa poi in rassegna i fattori che determinano tale « rotazione » dividendoli in: fisici e biologici e questi ultimi in bio-causali e bio-casuali. Infine basandosi sui dragaggi eseguiti da Colombo, da Gast e da lui stesso nel Golfo di Napoli, l'A. pensa che si possano distinguere degli « elementi biocenotici stabili » e degli « elementi biocenotici instabili ».

**Phifer Lyman D.** - Vertical Distribution of Diatoms in the Strait of Juan de Fuca [*De distributione verticali Diatomearum per Fretum* Juan de Fuca]. 3 figs., 4 tabl., Univ. Wash. Publ. in Oceanogr., I, 3, 83-96. Seattle, Wash. (1934). **b - 678**

Material collected during a cruise of the « Medea » in July, 1932. Methods of collecting samples and counting species.

A total of 36 species of Diatoms was found in this region. The dominant species from both centrifuged and net samples were: *Chaetoceros crucifer*, *Ch. debilis*, *Ch. pseudocrinitus*, *Ch. radicans*, *Ch. Vanheurckii* and *Skeletonema costatum*.

**Phifer Lyman D.** - Phytoplankton of East Sound, Washington, February to November, 1932 [*De phytoplancton in* East Sound, Wash. *a mense Februario ad mensem Novembrem 1932*]. 2 figs., 1 table, Univ. Wash. Publ. in Oceanogr., I, 4, 97-110. Seattle, Wash. (1934). **b - 679**

This paper gives the occurrence and distribution of phytoplankton (*Diatomaceae*, *Dinoflagellata*, *Silicoflagellata*) in the Sound, and the variation of its abundance in relation to the different months.

**Rakhmanova S.** - Studies on the Plankton of the Tartar Strait. Preliminary Investigation [*Plancton in Freto* Tartar. *Inquisitiones priores*]. (In Russ., Engl. Rés.). Bull. Far East. Branch. Acad. Sc. U. S. S. R., 1/2/3, app., 1-3. Vladivostok (1933). **b - 680**

Results of the analysis of 480 samples of plankton collected during two cruises (10/V-28/VII and 14/VII - 12/VIII, 1931) between Cape Povorotny and Alexandrovsk (Sachalin Island). Distribution and composition of the plankton. Concentration of the plankton and density of herring swarms.

**Redfield A. C.** - On the Proportions of Organic Derivatives in Sea Water and Their Relation to the Composition of Plankton [*De organicis derivatis in aqua marina. Quæstio de proportione deque eorum correlatione cum planctonica compositione*]. 5 figs., 2 tabl., James Johnstone Mem. Vol., 176-192. Liverpool (1934). **b - 681**

On hand of data obtained on different stations by the « Dana » in the course of the Carlsberg Foundation's oceanographical expeditions around the world in 1908-1909 and the « Atlantis » in the deep waters of the western Atlantic Ocean, the author discusses the correspondence between the proportions of phosphate and nitrate in the seas and the composition of living matter.

**Rose Maurice** - Recherches préliminaires sur le plankton de profondeur de la Baie d'Alger [*Inquisitiones priores in plancton in profundum bajæ Algariensis*]. 5 fig., Bull. Trav. Stat. Aquicult. et Pêche Castiglione, 1933, 1, 43-81. Alger (1934). **b - 682**

Méthodes employées. Liste, par mois, des formes reconnues par l'A., récoltées à une profondeur de 200 m. -O. Comparaison avec la faune pélagique superficielle: Liste de Copépodes communs à la surface et à la profondeur; liste de Copépodes particuliers à la surface; liste de Copépodes spéciaux à la profondeur.

**Russell F. S.** - The Vertical Distribution of Marine Macroplankton. XII. Some Observations on the Vertical Distribution of *Calanus finmarchicus* in Relation to Light Intensity [*Macroplancton marinum eiusque distributio verticalis. XII. Inquisitiones in distributionem verticalem speciei « Ca-*

*lanus finmarchicus*»]. 3 figs., 4 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 569-584. Plymouth (1934). **b - 683**

The female *Calanus* in July preferred higher intensities of light than did the females in August; this change was coincident with a change in the *Calanus* population as shown by size measurements. A similar change in distribution and in population was shown by the males. The females in July were living in intensities of 20,000 m. c. and more; but those in August were avoiding such high intensities. The males in July avoided intensities of 40,000 m. c. and over, while in August their upper limit was about 10,000 m. c.

**Rylov W. M.** - Zur Hydrologie und Planktonkunde einiger Seen im Unterlaufe des Flusses Syr-Darja (Aktschatau und Kara-Kul-Seen) [*De hydrologia et studiis planctonicis aliquorum lacuum in inferiore parte regionis* Syr-Darja (*Lacus* Aktschatau *et* Kara-Kul)]. 2 diagr., 4 Tab., Mém. Inst. Hydrol., X, 389-401. Léningrad (1933). **b - 684**

Temperaturverteilung, Bearbeitung der Planktonproben der salzigen Aktschatau- und Kara-Kul Seen. Ergebnisse der von der Fischerei-Station am Aral-See ausgesandten Expedition. Der erste See stellt ein Beispiel eines im Steppen- und Wüstengebiete wahrscheinlich seltenen Typus dar, in welchem im Sommer eine Temperaturstratifikation normalerweise vorliegt, während der Kara-Kul See durch eine Homothermie im Sommer charakterisiert ist. Es sind einige Angaben über die Zusammensetzung der Phyto- und Zooplankton der beiden Seen, zugefügt.

**Sawyer W. R.** - Comparative Penetration of Light into Sea Water [*Agitur de lucis penetratione comparativa in aquam marinam*]. Ann. Rep. Biol. Board Canada, 1933, 34. Ottawa (1934). **b - 685**

Results of a study of the phytoplankton conditions in the Bay of Fundy and the Gulf of Maine, which has shown that they are strikingly different. Observations on total solar radiation received daily per unit of horizontal surface during the year 1932 calculated for a representative station in the Bay of Fundy and the Gulf of Maine showing that the vertical extent of the photosynthesis and the greater incident solar radiation in the Gulf of Maine along with the more transparent water is undoubtedly an important factor in producing a greater phytoplankton population there than in the Bay of Fundy.

**Sears Mary** - Zoöplankton Studies [*Studia zooplanctonica*]. Woods Hole Oceanogr. Instit., Rep. 1933, 31, Woods Hole, Mass. (1934). **b - 686**

1. The distribution of the zoöplankton on the continental shelf, Cape Cod to Chesapeake Bay; 2. Siphonophores collected during the «Thor» expedition to the Mediterranean, 1908 and 1910.

**Seiwell Gladys E.** - Chemical Studies of Plankton in Sea Water [*Studia chimica planctonica aquæ marinae*]. Woods Hole Oceanogr. Instit., Rep. 1933, 31-32. Woods Hole, Mass. (1934). **b - 687**

Brief account of chemical studies on the organic carbon and phosphorus content of marine plankton, undertaken with a view to calculation of organic production, based on theoretical calculation of oxygen and phosphorus consumption in the tropical Atlantic Ocean. Results of a comparison of several methods for determination of iron in sea water undertaken in preparation for a study of the iron content and consumption of iron by the phytoplankton.

**Sømme Jacob D.** - Animal Plankton of the Norwegian Coast Waters and the open Sea I. Production of *Calanus finmarchicus* (Gunner) and *Calanus hyperboreus* (Krøyer) in the Lofoten Area [*Agitur de zooplancton in aquis prope litus Norvegum et in mare apertum. Productio speciei «Calanus finmarchicus» et «C. hyperboreus» in zona* Lofoten]. 45 figs., 26 tabl., Fiskerid. Skr., Ser. Havunders. (Rep. Norw. Fish. and Mar. Invest., IV, 9), 1-163. Bergen (1934). **b - 688**

This is the first part of an investigation carried out for the purpose of studying the more general laws of horizontal distribution and the production capacity of different areas of the sea as regards plankton animals. General part: Damas's circulation hypothesis. Special part I: Systematics, differentiation of species by measurements, quantitative determination of biological groups. Ch. I. Life history of *Calanus finmarchicus* and *Calanus hyperboreus*. Ch. 2. Measurements and methods for counting. Special part II: Biology and distribution of *Calanus finmarchicus* and *Calanus hyperboreus* in Norwegian coast waters. Ch. 3. Some observations on the biology of *Calanus hyperboreus* from different parts of the Norwegian coast. Ch. 4. Investigations in the Lofoten Area and the winter conditions in *Calanus finmarchicus* and *Calanus hyperboreus*. Ch. 5. Cessation of the winter condition and the period of spawning in *Calanus finmarchicus* and *Calanus hyperboreus*.

**Steuer Adolf** - Zur Fauna des Canal di Leme bei Rovigno [*De fauna canalis* Leme *nomine apud Arupinum*] (Dtsch. Text, ital. Rés). 24 Abb., Thalassia, I, 4, 1-44. Jena (1933). **b - 689**

Generalità sul Plancton e su alcuni dei suoi componenti. Morfologia e biologia di *Penilia avirostris* Dana, dei *Phoronidea* e delle loro larve. Su di una seconda specie adriatica di Enteropneusti.

**Stevenson J. A.** - Daily Vertical Distribution in St. Croix Zooplankton [*De distributione verticali diurna zooplanctonica in* St. Croix]. Ann. Rep. Biol. Rep. Canada, 1933, 37. Ottawa (1934). **b - 690**

Results of a series of plankton hauls showing the vertical distribution throughout a complete daily cycle for the following four species, the first two of which form an important article in the food of the giant scallop, as shown by stomach contents: Tintinnid (sp.), *Distephanus speculum*, *Mytilus* veligers, and *Aurelia* planulae.

**Thiemann K.** - Das Plankton der Flussmündungen [*Agitur de plancton in æstuariis fluminum*]. Wiss. Ergebn. Dtsch. Atlant. Exped. «Meteor» 1925-1927, XII, I. Teil, 3 Lief., 199-273. Walter de Gruyter & Co. Berlin & Leipzig (1934). **b - 691**

Die Aufgabe dieses Werkes ist die Veränderungen in Verteilung und Zusammensetzung des Planktons an den Mündungen der Elbe, des Amazonas, La Plata, Niger, Bimbia, Kamerun und Kongo zu erklären. Der Vf. unterscheidet an den Flussmündungen drei Zonen mit verschiedenen Farben: 1. eine Zone des blauen Wassers im Aussengebiet mit grösserer Meerestiefe und wenig Plankton, 2. eine Zone des olivgrünen Wassers im Küsten- oder Schelfgebiet mit starker Bevölkerungsdichte des Planktons, 3. eine Zone des Flussunterlaufes mit gelblichem, planktonarmem und detritusreichem Wasser. Zum Schluss wird eine schematische Uebersicht über Plankton-, Salz-, Detritusgehalt, Wasserfarbe und- tiefe im Mündungsgebiet eines Idealflusses gegeben.

**Thor S.** - Einzelne neue, besonders norwegische *Eupodes*-Arten mit einigen älteren Arten verglichen [*De novis quibusdam speciebus præcipue Norvegis ad genus «Eupodes» pertinentibus. Comparatio cum aliis speciebus*]. Zool. Anz., CV, 201-215. Leipzig (1934). **b - 692**

**Vatova A.** - Ricerche quantitative sul bentos del Golfo di Rovigno [*Inquisitiones quantitativæ benthonicae in Sinu Arupinensi*]. Note Ist. Biol. Rovigno, 12, 3-12. Venezia (1934). **b - 693**

Risultati delle ricerche quantitative compiute col prendisaggio di Petersen, nell'anno 1932-33, nel Golfo di Rovigno fino a 15 miglia marine dalla costa. La fauna dell'Adriatico sett. è assai ricca di specie ma povera di individui. Le biocenosi

distinte in base a 207 saggi sono 5: *Schizaster-Chiajei*, *Schizaster-Turritella*, *Tellina*, *Lima-fragilis*, *Venus*. Forme caratteristiche che accompagnano le dette biocenosi. Il peso complessivo della sostanza organica nel Golfo di Rovigno importa 143,8 gr. pro m². Non sono compresi in questa cifra i saggi del Canal di Leme.

**Wulff A.** - Ueber Hydrographie und Oberflächenplankton nebst Verbreitung von *Phæocystis* in der Deutschen Bucht im Mai 1933 [*De hydrographia et plancton ad superficiem, cum notis de distributione speciei* « *Phæocystis* » *per* Deutsche Bucht *mense Majo 1933*]. 2 Abb., Ber. Dtsch. Wiss. Komm. Meeresf. N. F., VII, 3, 343-350. Leipzig (1934). **b - 694**

An Hand der durch Untersuchung des Oberflächenplanktons festgestellten Verbreitung bestimmter Planktongemeinschaften oder einzelner Leitformen bestimmter Wasserarten wird die Verteilung und der Anteil der in der Deutschen Bucht im Mai 1933 vorhandenen Wasserarten aufgezeigt. Es wird über die quantitative Verbreitung der Kolonien von *Phaeocystis globosa* im Oberflächen- und Bodenwasser berichtet; ein Vergleich dieser Verbreitung mit dem Vorkommen von Jungheringen liessen auf dieser Fahrt keine eindeutigen Beziehungen zueinander erkennen.

# BIOLOGIA DESCRIPTIVA.

## Organisma navibus noxia.

**Coe W. R.** - Destruction of Mooring Ropes by *Teredo;* Growth and Habits in an Unusual Environment [*De cavis ancorariis eorumque destructione per speciem* « *Teredo* ». *Agitur etiam de accretione et consuetudinibus Teredinis in ambiente anomalo*]. Science, LXXVII, 2002, 447-449. New York (1933). **b - 695**

The great damages caused to the mooring ropes by *Teredo morsei*. Habits of the young Mollusks in the rope. The ropes are less suitable than wood for normal growth and sexual maturity of the teredos, therefore many of them die before reaching the reproductive period.

The unprecedented abundance of this species in 1930 is thought to have resulted from unusually favorable conditions for the survival of the larvae.

**Elsey C. R.** - Infection Periods of the Wood-Borers, *Bankia setacea* and *Limnoria lignorum* [*B. setacea et L. lignorum. Periodus infestationis ligni*]. Ann. Rep. Biol. Board Canada, 1932, 85. Ottawa (1933). **b - 696**

Results of the exchange of blocks of Douglas fir, placed for twelve months in Departure Bay, Vancouver Harbour, Boundary Bay and Massett Inlet, and for five months at Prince Rupert in order to determine at what time of year protection of boats and other wooden structures is most necessary against the infection by *Bankia* and *Limnoria*.

**Legendre R.** - Les peintures de carènes. Le point de vue biologique de la protection des métaux dans l'eau de mer [*De carinis earumque coloratione. Agitur de tutela ferenda metallis in aqua marina immersis, ex scientia biologica*]. 8 fig., La Nature, 2869, 445-450. Paris (1931). **b - 697**

Communication au Congrès International d'Aviation Coloniale, Octobre 1931. Considérations sur le mécanisme de fixation et de développement des organismes vivants qui encrassent et encroûtent les corps immergés. Etude biologique de la salissure des coques, les différents facteurs dont dépend la salissure de la coque; la nature des êtres que l'on rencontre le plus communément fixés sur les navires; compte rendu du travail de Visscher à ce sujet; les trois types de « crasse »; aspect biologique de la corrosion; élaboration de données nécessaires pour l'établissement d'une formule de peinture de carènes protégeant à la fois contre la corrosion et l'encrassement.

**Neu Wolfgang** - Der Schiffsbewuchs als biologisches und technisches Problem [*Agitur de organismis in navium carinis viventibus ex biologia et technica*]. Der Biologe, I, 12. München (1932). **b - 698**

**Neu Wolfgang** - Der Schiffsbewuchs als Lebensgemeinschaft [*De organismis in navium carinis viventibus, ac societate biologica consideratis*]. Der Naturforscher, IX, 7. Berlin-Lichterfelde (1932). **b - 699**

Mit besonderer Hinsicht auf die ökologischen Faktoren, die den Schiffsbewuchs als besondere Lebensgemeinschaft charakterisieren.

**Neu Wolfgang** - Bewuchsforschung [*Inquisitiones in organisma quæ in navium vivunt carinis*]. V. D. I. Nachrichten, XII, 51, Berlin (1932). **b - 700**

**Neu Wolfgang** - Die Aufgaben des Chemikers bei der Bekämpfung des Schiffsbewuchses [*De chimicorum officiis quoad certamen contra organisma navium carinis obnoxia*]. 1 Diagr., Angew. Chem., XXXXVI, [16], 227-229. Berlin (1933). **b - 701**

Der Vf. betont die Notwendigkeit den Bewuchs zu bekämpfen und weist auf zwei verschiedene Möglichkeiten hin. Die nötige Bereitung von Schiffsbodenfarben. Berichtigung der biologischen Angaben von Raggs. Bibliographie.

**Neu Wolfgang** - Qualitative und quantitative Bewuchsuntersuchungen am Elbe-Feuerschiff « Bürgermeister Bartels » 1932 [*Inquisitiones qualitativæ et quantitativæ in incrustationes navis farum ferentis* « Bürgermeister Bartels » *nomine, per Albem flumen navigantis*]. 4 Abb. a. T., 5 Tab., Archiv. f. Hydrobiol., XXV, 3, 383-393. Stuttgart (1933). **b - 702**

Die Besiedlung aller Elbe-Feuerschiffe ist im allgemeinen ähnlich, wesentlich durch *Balanus crenatus* und *Mytilus edulis* vertreten. Dies Schiff zeigt die Bewuchsmöglichkeit innerhalb einer Zeit von 11 Monaten. Das Gesamtbild des Bewuchses. Besiedlungsvorgang und Schlickablagerung. Die Quantität des Bewuchses. Der zeitliche Verlauf der Besiedlung. Die anderen Feuerschiffe.

**Neu Wolfgang** - Grossschädlinge: Die Seepocken (*Balanus* Da Costa) [*De parasitis obnoxiis: Balanus* Da Costa]. Der Biologe, II, 10. München (1933). **b - 703**

**Neu Wolfgang** - Der Einfluss des Farbtons der Unterlage auf die Besiedlung mit *Balanus* Da Costa und *Spirorbis* Mont. [*Gradus colorationis in navis stratu interno eiusque influentia in colonias formandas generum* « *Balanus* » Da Costa *et* « *Spiror-*

*bis* » Mont.]. 1 Abb., 6 Tab., Int. Rev. d. ges. Hydrobiol. u. Hydrogr., XXVIII, 3/4, 228-246. Leipzig (1933). **b - 704**

Kurze Besprechung der Untersuchungen von Visscher und Luce sowie des Ostwaldschen Farbtonmessverfahrens. Aus den hier beschriebenen Versuchen sowie einigen Beobachtungen aus der Praxis geht hervor, dass grüne Farbtöne mit einem optischen Mittelpunkt der Wellenlängen 534-561 $\mu\ \mu$ (bzw. 500-555 $\mu\ \mu$) im allgemeinen von den Larven bei der Ansiedlung gemieden werden. Ein wirkliches Universalmittel ist aber infolge unvollständiger Kenntnisse aller Stadien des Bewuchses noch nicht erfunden worden.

**Neu Wolfgang** - Biologische Arbeiten über den Schiffsbewuchs [*De operibus biologicis circa organisma quæ vivunt in navium carinis*]. Int. Rev. ges. Hydrobiol. u. Hydrogr., XXIX, 5/6, 455-458. Leipzig (1933). **b - 705**

Nach einigen Vorbemerkungen über das am 1. Juni 1932 in Cuxhaven eröffnete Laboratorium für Bewuchsforschung wird hier eine Zusammenstellung der seit 1922 erschienenen biologischen Arbeiten gegeben.

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**M. L.** - La protezione dei metalli nell'acqua di mare dal punto di vista biologico [*De tutela metallorum in aqua marina, ex scientia biologica*]. Riv. Maritt. (Notiziario), LXVI, Luglio-Ag., 22-27. Roma (1933). **b - 706**

Da una comunicazione presentata al Congresso Nazionale dell'Areonautica Coloniale a Parigi. Azione di Molluschi contro lo scafo. Esperienze per neutralizzarla.

## Varia.

**Allen Winfred Emory** - The Primary Food Supply of the Sea [*De maris priore commeatu alimentari*]. 3 figs., Quart. Rev. Biol., IX, 2, 161-180. Baltimore (1934). **b - 707**

Since the testimony of many writers agrees with the observation of the A. that Diatoms are the most prominent and the most widely represented of any populations of the sea, he will consider them as fairly representative of the « primary food supply » of the ocean and give to them principal attention in the present paper. In fact, he studies the marine plankton Diatoms, the problem of their uniformal distribution, seasonal distribution, year differences, locality differences, solar radiation, Cloud theory of phytoplankton occurrence.

**Beebe William** - A Half Mile Down. Strange Creatures, Beautiful and Grotesque as Figments of Fancy, Reveal Themselves at Windows of the Bathysphere [*Animalia mirifica in maris profunditatibus quæ per bathysphæram conspici possunt*]. 29 figs., 16 col. pl., Nat. Geogr. Magaz., LXVI, 6, 661-704. Washington, D. C. (1934). **b - 708**

Account of the deep-sea investigations during the season of 1934 of the author who this year successfully established a new depth record of 3,028 feet in Bermuda waters.

**Bohn Georges** - Leçons de Zoologie et Biologie générale. 3 : Les Invertébrés (Coelentérés et Vers) [*Zoologia et Biologia generalis. 3. Invertebrata* (*Coelenterata et Vermes*)]. 102 pp., (Actualités Scient. et Industr. 133). Hermann et Cie. Paris (1934). **b - 709**

Dans ce manuel l'A. étudie les groupes suivants : Coelentérés, Eponges, Annélides, Plathelminthes, Nématodes et Vers aberrants.

**Borcea I.** - Addendas aux communications antérieures : 1) Nouvelles contributions à l'étude de la faune benthonique dans la Mer Noire, près du littoral roumain (Ces Annales, XVI, 654-759) ; 2) Nouvelles observations sur les migrations et sur la période de ponte des espèces des Poissons migrateurs de la Mer Noire (Ces Annales, XVII, 503-564) [*Addenda ad relationes priores : 1) Contributiones novæ in studium faunæ benthonicæ ponticæ, præter litora Rumena.* (Annales, *XVI, 654-759*) ; *2) Studia nova de migrationibus et tempore ovorum depositionis Piscium Ponti Euxini migrantium.* (Annales, *XVII, 503-564*)]. 2 fig., Ann. Scient. Univ. Jassy, XIX, 1/4, 398-401. Jassy (1934). **b - 710**

**Borcea I.** - Liste des animaux marins récoltés jusqu'à présent dans la région de la Station d'Agigéa (Mer Noire) [*Index animalium marinorum adhuc collectorum in propinquitatibus Stationis* Agigéa (*Pontus Euxinus*)]. Ann. Scient. Univ. Jassy, XIX, 1/4, 402-407. Jassy (1934). **b - 711**

Protozoaires, Spongiaires, Coelentérés, Vers, Mollusques, Crustacés, Vermidiens, Protocordés, Poissons, Mammifères.

**Brightwell L. R.** - On the Seashore [*In ora maritima*]. viii + 119 pp., (Discovery Books), Thomas Nelson & Sons, Ltd. Edinburgh & London (1934). **b - 712**

**Crane Jocelyn** - Deep-sea Creatures of Six Net Hauls [*Organisma in mari peralto sexies capta piscationibus*]. 10 figs., 2 tabl., Bull. New York Zool. Soc., XXXVII, 6, 174-181. New York (1934). **b - 713**

Rose-lighted Dragonfish (*Echiostoma*) from five hundred fathoms. In the four-hundred-fathom net were grayish pallid round-mouths and the whitish young of dark-brown abyssal Cyclothones. Myctophids or lanternfish ; *Photonectes ; Melanocetus*, thread Eels, *Systellaspis* and others. This article also contains some graphs showing the proportions of the principal groups of animals caught in a typical deep-sea haul and the gradual decrease in the numbers of deep-sea animals caught between 400 and 900 fathoms.

**D'Ancona Umberto** - V. Faune et flore des eaux saumâtres (Appendice) [*De fauna et flora aquarum salmacidarum.* (*Appendix*)]. 1 fig., Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 167-184. Paris (1934). **b - 714**

Appendice des rapports déjà publiés par l'A. au cours des deux dernières années sur le même sujet. Il ne s'y occupe que des travaux concernant les eaux saumâtres au point de vue général et de ceux qui traitent en particulier des eaux saumâtres de la Méditerranée y compris la Mer Noire et la Mer d'Azov. Ces dernières, à cause du grand nombre des recherches importantes dont elles ont été dernièrement objet, fournissent une documentation très intéressante, même au point de vue de l'océanographie et de la biologie générale. Une liste bibliographique de 51 titres complète l'ouvrage.

**Demel K. & Dłuski S.** - Compte rendu d'une excursion scientifique sur le banc central de la Baltique [*Navigatio quadam scientifica ad banchum centralem Maris Baltici. Relatio*]. (En pol., rés. franç.). 12 fig., 2 tabl., Arch. Hydrobiol. & Ichtyol., VIII, 48-74. Suwalki (1934). **b - 715**

Compte rendu d'une excursion scientifique sur le bateau-école polonais « Dar Pomorza » dans la région méridionale du banc central de la Baltique, région délimitée par les latitudes 55° 27' N - 55° 48' N et les longitudes 16° 33' E - 17°42' E. Cette région est caracterisée par l'abondance de *Macoma baltica*

et de *Pontoporeia affinis.* Dans des profondeurs considérables on a capturé 7 espèces arctiques. Les AA. donnent aussi les résultats des sondages effectués, les données obtenues au cours des observations thermiques ainsi que des observations sur la salinité.

**Duncan F. Martin** - Animals of the Sea (Romance of Reality Series) [*Animalia marina* (*Fabulosa enarratio rerum verarum*)]. T. C. & E. C. Jack, Ltd. London (1934). **b - 716**

**Germain Louis** - Faune des îles de la Mer Méditerranée Occidentale. Quelques Mémoirs récents relatifs à la faune insulaire méditerranéenne (Méditerranée occidentale) [*Fauna insularum Maris Mediterranei occid. Opera recentiora de fauna insulari Maris Mediterranei occ.*]. Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 263-271. Paris (1934). **b - 717**

Vu que nos connaissances actuelles sur la faune des îles de la Mer Méditerranée occidentale présentent encore des lacunes considérables, l'A. a cru opportun de dégager dans le présent rapport l'essentiel des recherches accomplies sur divers groupes zoologiques de ces îles qui présentent un grand intérêt, puisqu'elles comblent quelques-unes des lacunes dont ci-dessus, avec référence spéciale aux mémoires ayant une portée générale, biogéographique et biologique ou pratique. L'index bibliographique très étendu contient des références exactes sur les travaux pris en considération.

**Gillespie A. S.** - The Distribution of Some Common Rocky Shore Animals: with Special Reference to the West Coast of Anglesey [*De quibusdam consuetis animalibus marinis. Quæstio de eorum distributione per oram quamdam marinam scopulosam. Agitur particulatim de litoribus occid. regionis* Anglesey]. North Western Natural., VIII, 114-120. (1933). **b - 718**

**Gislén Torsten** - Evolutional Series towards Death and Renewal [*Evolutionis series ad mortem et renovationem*]. 22 figs., Ark. f. Zool., 26 A, H. 3, 16, 1-19. Stockholm (1934). **b - 719**

The purpose of this paper is with some examples to elucidate the different modes used by evolution for a certain adaptation. It aims to show what the circumstances are when the result turns out to be fitted for surviving, or is subjected to a rapid extinction, and to what degree we may sometimes surmise a correlation between the change developed and the extintion or revival of the form-series. As an object for demonstration the A. has selected some evolutionary series among the Echinoderms.

**Harrison Matthews L.** - The Marine Deposits of the Patagonian Continental Shelf [*De sedimentis marinis in planitie continentali Patagonica*]. 13 pl., Discovery Rep. (Govmt. Depend. Falkland Isls.), 175-208. Univ. Press. Cambridge (1934). **b - 720**

**Hart T. John** - Red « Water-Bloom » in South African Seas [*Agitur de summa superficie rubri coloris in Africanis maribus merid.*]. 1 fig., Nature, CXXXIV, 3386, 459-460. London (1934). **b - 721**

Observation of a red « water-bloom » in Simons Bay. Microscopic examination showed that the discoloration was caused by myriads of ciliate *Protozoa*, belonging to *Mesodinium* that approach *M. rubrum.* Description of this organism. Brief account on the possible causes of the formation of « water-bloom » by micro-organisms.

**Hegner Robert W.** - Invertebrate Zoology [*Invertebratorum Zoologia*]. 8 pl., xiii + 570 pp., The Macmillan Co. New York (1933). **b - 722**

**Heldt H.** - La Tortue Luth *Sphargis coriacea* (L.). Captures faites sur les côtes tunisiennes (1930-1933). Contribution à l'étude anatomique et biologique de l'espèce [*Sphargis coriacea* (L.) *eiusque captura præter litora tunetana (a. 1930-1933). Contributio in studium anatomicum et biologicum*]. 17 fig., Ann. Stat. Océanogr. Salammbô, 8, 1-10. Salammbô (1933). **b - 723**

Tortues de Sidi-Daoud. Tortue luth de Monastir. Première tortue luth de Gabès. Seconde tortue luth de Gabès: capture, coloration, mensurations, poids de divers organes, particularités anatomiques. Considérations générales sur *Sphargis coriacea* L.: répartition géographique, principales captures, tailles des exemplaires signalés, association tortue luth- rémoras-pilotes, régime alimentaire, époque et lieux de ponte, valeur alimentaire.

**Hentschel Ernst** - Allgemeine Biologie des Südatlantischen Ozeans. Erste Lief.: Das Pelagial der obersten Wasserschicht [*Biologia generalis Oceani Atlantici Merid. Fauna pelagica ad stratum superiorem oceani pertinens*]. Wiss. Ergebn. Dtsch. Atlant. « Meteor »-Exped. 1925-1927, XI. Walter de Gruyter & Co. Berlin & Leipzig (1933). **b - 724**

Hier wird das Planktonleben der obersten Wasserschicht 0-50 m., die von der Sonne durchlichtet ist, berücksichtigt. Die Verteilung der verschiedenen Organismen ist durch eine Menge Karten wiedergegeben. Das Werk zerfällt in drei Hauptteile: I. Das Nannoplankton als Ganzes. II. Das Pelagial in seiner Zusammensetzung und Differenzierung. III. Das Pelagial an ausgezeichneten Stellen und an seinen Grenzen. Einen besonderen Teil nimmt die Behandlung des Pleustons ein. Die früher zugemessene grosse Bedeutung des Landes für die Nährstoffzufuhr wird hier widerlegt. (Siehe auch Rez. von A. Steuer, Naturwiss., XXII, 46, S. 779-780).

**Joubin L. (Publiée sous la direction de M.)** - Faune et flore de la Méditerranée [*De fauna et flora Maris Mediterranei*]. 1 table, Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 299-313. Paris (1934). **b - 725**

Liste des fiches composant les cahiers I à XIX classées par ordre zoologique avec le nom de l'auteur de chacune d'elle. *Porifera. Coelenterata: Scyphozoa-Hydrozoa. Anthozoa: Hexacorallia, Ctenophora. Vermes: Polycladida, Trematoda, Chaetognatha. Echinodermata: Asteroidea, Ophiuroidea, Echinoidea, Holothuridea, Crinoidea. Arthropoda: Acarina. Crustacea: Isopoda, Amphipoda, Decapoda. Mollusca: Pelecypoda. Gastropoda: Prosobranchiata. Opistobranchiata. Cephalopoda: Decapoda. Prochordata: Cephalochordata, Tunicata. Vertebrata: Pisces: Cyclostomi, Ganoidei, Holocephali, Elasmobranchiata, Teleostei.*

**Moore H. B.** - A Comparison of the Sandfauna of Port Erin Bay in 1900 and 1933 [*De fauna in sabula Bajæ* Port Erin. *Quæstio de comparatione faunæ anni 1900 cum fauna anni 1933*]. Proc. Malacol. Soc., XX, 285-294. London (1933). **b - 726**

**Moorhouse F. W.** - Notes on the Green Turtle (*Chelonia mydas*) [*Notæ de specie «Chelonia mydas»*]. 3 pl., Rep. Great Barrier Reef Comm., IV, part I, 1, 1-22. Brisbane (1933). **b - 727**

Introduction. Marking of adult Turtles. Breeding season. Enemies of mature Turtles. Eggs. Percentage hatch. Young Turtles. Enemies of young Turtles. Marking of young Turtles. Growth in young Turtles. Preservations of young Turtles. Deductions and suggested restrictions.

**Morton J. M.** - The Phosphate and Oxygen Content of Sea Water Near Halifax [*Phosphatum et oxygenum quæ continentur in aqua marina apud*

Halifax]. Ann. Rep. Biol. Board Canada, 1933, 29. Ottawa (1934). **b - 728**

Concentration of phosphate ion; phosphate as a limiting factor in the production of the microscopic plant which form the ultimate source of food of all life in the sea; gradual diminution of phosphate during the period from May, until the last of August, 1933. Cycle of oxygen in sea water.

**Murphy Cushman Robert** - August on Fire Island Beach. Notes on the Natural History of an almost Primeval Seashore [*De ora maritima in* Fire Island *mense Augusto. Notæ de historia naturali oræ cuiusdam maritimæ fere primitivæ*]. 12 figs., Natur. Hist., XXXIII, 4, 351-364. New York (1933). **b - 729**

Description of the vegetation and miscellaneous forms of animal life on a barrier beach off Long Island, N. Y.

**Pedersen Alwin** - Polardyr [*Animalia regionum polo proximarum.* 150 pp., Gyldendal. København (1934). **b - 730**

L'A. qui a pris part à plusieurs expéditions au Groenland donne la description de la faune de la côte nord-orientale du Groenland. L'oeuvre est complétée par de nombreuses illustrations.

**Redfield Alfred C.** - Studies in Marine Biology and Biological Chemistry [*Studia biologiae marinæ et chymicæ biologicæ*]. Woods Hole Oceanogr. Instit., Rep. 1933, 29-30. Woods Hole, Mass. (1934). **b - 731**

After a brief summary of data obtained during a cruise of the « Atlantis » which have been incorporated into a paper entitled « On the proportions of organic derivatives in sea water and their relation to the composition of the plankton » (appeared in the James Johnstone Memorial Volume), the author communicates some new data collected during a systematic investigation of the waters of the Gulf of Maine with cruises in June, September, October, December 1933 and January 1934 in view of obtaining an accurate picture of the distribution of the substances important in the nutrition of animals and plants throughout the year, as well as of the actual circulation within the Gulf. Some information of the work of Dr. R. W. Root and Dr. Arda A. Green on the hemoglobin of Fishes.

**Santucci Renato** - I risultati delle prime osservazioni sulla fauna delle acque territoriali eritree [*De resultatibus ex prioribus observationibus in faunam aquarum territorialium Erythræarum*]. Rass. Econ. Colonie, XXII, 5/6, 305-324. Roma (1934). **b - 732**

Ricerche condotte allo scopo di conoscere le varie comunità biologiche più interessanti dal lato della pesca. Programma di lavori: *a*) studio fisico-chimico-biologico dei banchi a *Meleagrina* e a *Trochus*; loro delimitazione; *b*) distribuzione delle Oloturie e studio dei fondi sui quali vivono; *c*) ricerche sui Clupeidi e sugli Scombridi; *d*) distribuzione degli Squali più comuni e osservazioni sulla loro alimentazione, sul periodo di maturità sessuale e sulle zone di pesca.

**Staig Robert A.** - Zoology. The *Invertebrata*, Part. I. [*Zoologia. De Invertebratis. Pars Ia*]. 16 figs., 88 pp., Third ed. The Catechism Ser., E. & S. Livingstone. Edinburgh (1933). **b - 733**

**Stephen A. C.** - Studies on the Scottish Marine Fauna: Quantitative Distribution of the Natural Faunistic Division of the North Sea [*Studia de fauna marina Scota. De distributione quantitativa divisionum faunisticarum naturalium Maris Nordici*]. Trans. R. Soc. Edinburgh, LVII, 777-788. Edinburgh (1934). **b - 734**

**Strand Embrik** - Zoologische und paläontologische Ergebnisse von den Svalbard- und Eismeer-Untersuchungen Norwegens [*Resultatus zoologici et palaeontologici ex observationibus in* Svalbard *et per Oceanum Glacialem a Norvegis peractis*]. Fol. Zool. et Hydrobiol., V, 1, 118-121. Riga (1933). **b - 735**

Kurze Referate über die in den Jahren 1922-1932 erschienenen Arbeiten zoologischen bezw. paläontologischen Inhalts, die sich auf die oben erwähnten Untersuchungen beziehen.

**Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée** - Faune et flore de la Méditerranée [*De fauna et flora Maris Mediterranei*]. 24 pl., Comm. Expl. Scient. Méditerranée, 20, Paris (1933). **b - 736**

*Leuckartiara octana, Tiaranna rotunda, Pneumoderma atlanticum, Pneumodermopsis canephora, Cliopsis krohni, Aplysia depilans, A. punctata, A. fasciata, Pectunculus glycymeris, Blennius trigloides, B. gattorugine, B. tentacularis, B. pavo, B. galerita, B. sanguinolentus, Tripterygion tripteronotus, Aphya minuta, Pseudaphya ferreri, Germo alalunga, Euthynnus alletteratus, Auxis thazard, Katsuwonus pelamys, Sarda sarda, Argyropelecus hemigymnus.*

## Bacteria.

**Baker M. C.** - Primitive *Bacteria* in Sea Water [*Bacteria primigenia in aqua marina*]. Ann. Rep. Biol. Board Canada, 1932, 18. Ottawa (1933). **b - 737**

Description of a failed attempt to demonstrate the presence of « primitive forms » of *Bacteria* in sea water, using Sherman's method (see « Science », Dec. 11, 1931; « Journal of Infectious Diseases », vol. 51, Jan. 16, 1932).

**Carey Cornelia L. & Waksman Selman A.** - The Presence of Nitrifying *Bacteria* in Deep Seas [*De Bacteriis nitrificantibus in maribus peraltis*]. Science, LXXIX, 2050, 349-350. New York (1934). **b - 738**

From these observations it has been proved to be beyond any doubt that the process of nitrification in the sea is brought about by *Bacteria* that are inhabitants of the sea bottom.

**Reuszer Herbert W.** - Marine *Bacteria* and their Rôle in the Cycle of Life in the Sea. III. The Distribution of Bacteria in the Ocean Waters and Muds about Cape Cod. [*Agitur de bacteriis marinis eorumque functione quoad vitæ circulum in mari. III. Distributio bacteriorum per aquas oceanicas et loca limosa quæ* Cape Cod *circumdant*]. 2 figs., 7 tabl., Biol. Bull., LXV, 3, 480-497. Lancaster, Pa. (1933). **b - 739**

A revision of the investigations concerning the number of *Bacteria* and their distribution in sea water has been made. The studies reported in this paper concern the number of *Bacteria* found in ocean waters and muds in the region of Cape Cod, Mass., and their variation with distance from shore, depth of water, depths in the mud, and carbon content of the mud.

**Waksman Selman A.** - The Rôle of *Bacteria* in the Cycle of Life in the Sea [*Bacteria. De eorum functione quoad vitæ circulum in mari*]. 16 figs., Scient. Monthly, XXXVIII, January, 35-49. New York (1934). **b - 740**

The cycle of life in the sea and bacterial activities. Methods of study of marine *Bacteria.* Nature of the bacterial population of the sea. Decomposition of plant and animal residues and transformation of nitrogen. Organic matter in sea-water and in the marine bottom.

**Waksman Selman A. & Carey C. L.** - Rôle of *Bacteria* in Decomposition of Plant and Animal Residues in the Ocean [*Agitur de parte quam bacteria capiunt quoad decompositionem residuorum animalium et vegetalium in Oceano*]. Proc. Soc. Exp. Biol. & Med., XXX, 526-527. New York (1933). **b - 741**

**Waksman Selman A. & Reuszer H. W.** - Studies in Marine Bacteriology [*Studia bacteriologiæ marinæ*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 36. Woods Hole, Mass. (1933). **b - 742**

Account of work in marine bacteriology dealing with the determination of the total numbers of *Bacteria* present in sea water and bottom deposits, and with the occurrence of *Bacteria* capable of carrying on specific physiologic processes. Indication on the methods of approach, and summary of the results so far obtained.

**Waksman Selman A., Reuszer H. W., Carey C. L., Hotchkiss M.,** assist. by **Renn C. E.** - Report of Studies in Marine Bacteriology [*Relatio de studiis bacteriologiæ marinæ*]. Woods Hole Oceanogr. Instit., Rep. 1930-32, 49-51. Woods Hole, Mass. (1933). **b - 743**

Summary of the results of the investigations in the field of marine bacteriology inaugurated in 1931 and which were centred in 1932 largely around four general problems: 1. the abundance and distribution of the bacterial population in the sea water and bottom deposits of the Gulf of Maine, the continental shelf and certain bays about Cape Cod; 2. decomposition of zoöplankton and algal residues by *Bacteria*; 3. the rôle of *Bacteria* in the nitrogen cycle of the sea; 4. the abundance and chemical nature of marine humus.

**Waksman Selman A., Reuszer H. W., Carey C. L., Hotchkiss M., Brice W. F. & Renn C. E.** - Investigations in Marine Bacteriology [*Inquisitiones in bacteriologiam marinam*]. Woods Hole Oceanogr. Instit., Rep. 1933, 35-37. Woods Hole, Mass. (1934). **b - 744**

Account of the investigations which represent to a large extent continuations of those of 1932, namely: 1) the abundance and distribution of the bacterial population in the sea, 2) decomposition of algal residues by *Bacteria*, 3) the rôle of *Bacteria* in the nitrogen cycle of the sea, especially in nitrification and nitrogen-fixation, 4) the abundance and chemical nature of marine humus in the sea bottom.

**Zobell C. E. & Feltham C. B.** - A 5.21 - Are there Specific Marine *Bacteria*? [*Sunt bacteria peculiaria marina*?]. 2 tabl., Proc. Fifth Pacific Sc. Congr., III, Victoria & Vancouver (1933). **b - 745**

Sea water provides for the cultural requirements of marine *Bacteria* better than do other solutions. Sea water inhibits the multiplication of many non-marine micro-organisms, although they are benefited by five to ten per cent. sea water. While many of the marine forms appear to be obligate halophiles, there seems to be something in sea water, besides the common salts which makes it indispensable to the development of some of the marine *Bacteria*. The toxicity of sea water for non-marine *Bacteria* is due not only to its high salt concentrations, but to some other factors as well.

**Zobell C. E. & Feltham C. B.** - Preliminary Studies on the Distribution and Characteristisc of Marine *Bacteria* [*Bacteria marina eorumque distributio et peculiaritates. Studia priora*]. 5 figs., Bull. Scripps Instit. Oceanogr. Univ. Calif., La Jolla, Calif. Techn. Ser., III, 12, 279-296. Berkeley, Calif. (1934). **b - 746**

Technic of marine bacterial investigations. Distribution and abundance of *Bacteria*. Characteristics of bacterial flora. Importance of the marine *Bacteria* in the economy of the sea.

## Protozoa.

**Biecheler Berthe** - Sur un Dinoflagellé à capsule périnucléaire, *Plectodinium*, n. gen. *nucleovolvatum*, n. sp. et sur les relations des Péridiniens avec les Radiolaires [*Plectodinium nucleovolvatum n. gen. n. sp. correlationesque inter Peridineas et Radiolaria*]. 3 fig., C. R. Acad. Sc., CXCVIII, 4, 404-406. Paris (1934). **b - 747**

Description de ce gymnodinien nouveau. Caractéristiques par lesquelles il diffère de celui découvert par Meunier dans le plancton de la Mer de Kara et des Dinoflagellés. Existence d'une capsule périnucléaire, qui s'identifie à la capsule centrale des Radiolaires.

**Calkins Gary N.** - The Biology of the *Protozoa* 2nd ed. thoroughly rev. [*Protozoa eorumque biologia. Editio altera omnino recognita*]. 2 col. pl., 223 figs., v + 607 pp., Lea & Febiger. Philadelphia; Baillière, Tindall & Cox. London (1933). **b - 748**

The underlying theme remains the same as in the 1st edition but the material is rearranged, concentrated, and more direct. The different chapters deal with: morphology, cytology, taxonomy, physiology, reproduction, ecology, commensalism and parasitism with a treatise on human diseases due to *Protozoa*. Some changes have been made in the usual systems and more elaborate keys given to several genera.

**Campbell Arthur S.** - A Few Dinoflagellates from Laguna Beach [*Nonnulla Dinoflagellata in* Laguna Beach]. 17 figs., Journ. Entomol. & Zool., XXVI, 2, 17-21. Claremont, Calif. (1934). **b - 749**

There are three new species reported in this paper, viz., *Peridinium vagans*, *Ceratium angustula*, and *C. uteri*. The remaining species have been previously recorded along the California coast and elsewhere. The diagnoses of the new species are given in Latin.

**Cushman J. A.** - Some Notes on d'Orbigny's Models [*Notæ de exemplaribus ad* d'Orbigny *pertinentibus*]. Contr. Cushman Labor. Foramin. Res., IX, 3, 70-73. Sharon, Mass. (1933). **b - 750**

The original models of fossil and living *Foraminifera* were made about 1826 and the second edition containing a pamphlet with a list of the species was issued in 1843. A list of 100 models is given here with the localities copied from the original work of d'Orbigny.

**Cushman J. A.** - Some New Recent *Foraminifera* from the Tropical Pacific [*Foraminifera quædam nova recentioraque Oceani Pacifici tropicalis*]. 2 pl., Contr. Cushman Labor. Foramin. Res., 137, 77-95. Sharon, Mass. (1933). **b - 751**

Thirty-five new species and varieties are described and figured in this paper.

**De Saedeleer Henri** - Beitrag zur Kenntnis der Rhizopoden: morphologische und systematische Untersuchungen und ein Klassifikationsversuch [*Contributio in Rhizopoda cognoscenda: Inquisitiones in morphologiam et systematicam; exemplum distributionis in classes*]. 29 Textfig., 8 Taf. mit erklär. Text, Mém. Mus. R. Hist. Natur. Belgique, 60, 1-112. Bruxelles (1934). **b - 752**

Einleitung. Klassifikationsversuch der Rhizopoden, mit Ausnahme der Klassifikation der *Amoebaea* und der *Polythalamia*. Beobachtungen an neuen oder wenig bekannten Rhizopoden. Eine ziemlich grosse Anzahl neue Formen, Gattungen und Zusammensetzungen sind hier eingeführt worden mit Synonymen und Berichtigungen.

**Earland Arthur** - *Foraminifera.* Part. 3: The Falkland Sector of the Antarctic (excluding South Georgia) [*Foraminifera. Pars 3: Sector nomine* Falkland *in Oceano antarctico* (*Georgia meridionali excepta*)]. 10 pl., 208 pp., Discovery Rep. (Govmt. Depend. Falkland Isls.), X, Univ. Press. Cambridge (1934). **b - 753**

Several species are described for this region, some of which are new to science. Considerations on their distribution are given. A comparison is made between the foraminiferous fauna of the Bellingshausen Sea and the Weddel Sea.

**Garnjobst Laura** - Studies on *Stylonethes sterkii* sp. nov. I. Morphology and Systematic Position [*Stylonethes sterkii sp. nov. I. De morphologia et systematica*]. 1 fig., 2 pl., Journ. Mar. Biol. Assoc., XIX, 2, 707-722. Plymouth (1934). **b - 754**

This species was collected from a puddle in Chelson Meadow. Technique. General morphology. Habitat and behaviour. Systematic position. Diagnoses of the genus and of the species.

**Gemeinhardt K.** - Die Silicoflagellaten des Südatlantischen Ozeans [*Silicoflagellata Oceani Atlantici merid.*]. Wiss. Ergebn. Dtsch. Atlant. Exped. « Meteor » 1925-1927, XII, Erster Teil. Biolog. Sonderunters. 3 Lief., 274-312. Walter de Gruyter. Berlin & Leipzig (1934). **b - 755**

Systematik, Verbreitungsgebiet, Oekologie, Beziehungen zum Gesamtplankton.

**Giambra Rosa** - Alcune Peridinee del mare di Palermo [*Nonnullæ Peridineæ maris Panormitani*]. Boll. Soc. Sc. Natur. Econ. Palermo, XV, 49-52. Palermo (1933). **b - 756**

L'A. descrive 19 specie di Peridinee determinate in base all'esame delle pescate periodiche di plancton eseguite nel 1930 nel mare di Palermo. Le specie appartengono alla classe *Dinophysiales*: fam. *Dinophysiaceae* e alla classe *Peridiniales*: fam. *Ceratocoryaceae*, *Oxytoxaceae*, *Ceratiaceae*, *Gonhyaulaceae*, *Peridiniaceae*, *Goniodomaceae*, *Podolampaceae*.

**Hickson S. J.** - On *Gypsina plana* and on Systematic Position of the Stromatoporoids [*De Gypsina plana deque systematica Stromatoporoidarum*]. 13 figs., 2 pl., Quart. Journ. Microscop. Sc., LXXVI, 3, 433-480. London (1934). **b - 757**

Detailed study of *G. plana* forming a crust on dead branches of a madrepore collected in shallow water at Tahiti. Discussion as to the nature of the Stromatoporoids that the A. considers belonging to the *Foraminifera*.

**Hovasse Raymond** - Ebriacées, Dinoflagellés et Radiolaires [*Ebriacea, Dinoflagellata et Radiolaria*]. 1 fig., C. R. Acad. Sc., CXCVIII, 4, 402-404. Paris (1934). **b - 758**

D'après les considérations de plusieurs auteurs précédents et d'après l'étude des caractères nucléaires et du squelette des Ebriacées, on peut conclure que cette famille, considérée jusqu'ici incertae sedis, se trouve amenée à la limite commune des deux ordres des Rhizopodes et des Flagellés.

**Jepps M. W.** - On *Kibisidytes marinus* n. gen. n. sp. and some Other Rhizopod *Protozoa* found on Surface Films [*Kibisidytes marinus n. gen., n. sp. aliaque Rhizopoda*]. 2 pl., Quart. Journ. Microscop. Sc. (n. ser.), LXXVII, 1, 121-127. London (1934). **b - 759**

Size, shell, pseudopodia, vacuoles, nucleus, multiplication, and food are described for this new species.

**Kirby Harold jr.** - Some Ciliates from Salt Marshes in California [*De quibusdam Ciliatis in stagnis salsis ad Californiam pertinentibus*]. 4 pl., Arch. f. Protistenk., LXXXII, 1, 114-133. Jena (1934). **b - 760**

The fauna described here from salt marshes on Monterey Bay and near Berkeley on San Francisco Bay resembles very much that of the brackish water at Oldesloe, Germany. The following forms are described as new: *Sonderia pharyngea* n. sp., *Peritromus californicus* n. sp.

**Kofoid Charles Atwood & Adamson Alastair Martin** - The *Dinoflagellata*: the Family *Heterodiniidæ* of the *Peridinioidæ*. Report on the Scientific Results of the Expedition to the Eastern Tropical Pacific, in Charge of Alexander Agassiz, by the U. S. Fish Commission Steamer « Albatross », from October, 1904, to March, 1905, Lieut. Commander L. M. Garrett, U. S. N., Commanding [*Dinoflagellata: familia Heterodiniidæ*]. 22 pl., Mem. Mus. Comp. Zoöl. Harvard Coll., LIV, 1, 1-136. Cambridge, Mass. (1933). **b - 761**

35 species belonging to this family are described in this paper, five of which are new to science. The study of their distribution shows that they are restricted to warm temperate and tropical seas; all have been taken at 300 fathoms.

**Li-Sun Tai & Skogsberg Tage** - Studies on the *Dinophysoidæ*, Marine Armored Dinoflagellates, of Monterey Bay, California [*Dinophysoidæ, Dinoflagellata armata in Baja* Monterey, *Calif.*]. 2 pl., 14 figs., Arch. f. Protistenk., LXXXII, 3, 380-482. Jena (1934). **b - 762**

I. Introduction. II. Material and methods. III. Thecal morphology of the *Dinophysoidae*. IV. Relationships among certain genera of *Dinophysoidae*. V. Principles applied to the descriptions. VI. Special part: Family *Dinophysidae* Stein. Genus *Phalacroma* Stein: *Phalacroma vastiforme* sp. nov., Genus *Dinophysis* Ehrbg.: *D. rotundata* Clap. & Lach., *D. rotundiformis* sp. nov., *D. brevisulcus* sp. nov., *D. acuminata* Clap. & Lach. *D. fortii* Pavillard, *D. acuta* Ehrbg., *D. odiosa* (Pavillard), *D. caudata* Saville-Kent, *D. tripos* Gourret, Genus *Metaphalacroma* gen. nov., *M. skogsbergi* sp. nov., Genus *Proheteroschisma* gen. nov., *P. connectens* sp. nov., Genus *Pseudophalacroma* Jörgensen, *P. nasutum* (Stein) Jörgensen, Genus *Oxyphysis* Kofoid, *O. oxytoxoides* Kofoid; Bibliography.

**Macfadyen W. A. & Kenny E. J. André** - On the Correct Writing in Form and Gender of the Names of the *Foraminifera* [*De correcta scriptura nominum Foraminiferorum quoad formam et quoad genus*]. Journ. R. Microscop. Soc., ser. III, LIV, 3, 177-181. London (1934). **b - 763**

In the present note the A. considers the valid generic names in use at the present day.

**Marshall Sheina M.** - The *Silicoflagellata* and *Tintinnoinea* [*Silicoflagellata et Tintinnoinea*]. Great Barrier Reef. Exped., 1928-29. Scient. Rep., IV, 15, 623-664. British Mus. (Natur. Hist.). London (1934). **b - 764**

This study shows that it is very difficult to collect Silicoflagellates because of their small size. Fifty-six species of *Tintinnoinea* have been found, three of which are new to science. The neritic and oceanic forms are distinguished.

**Roscoe E. & Stewart Katherine C.** - Notes on the *Foraminifera* of the Type Merced at Seven Mile Beach, San Mateo County, California [*Notæ de Foraminiferis ad typum* Merced *pertinentibus in* Seven Mile Beach, San Mateo County, Calif.]. 13 pp., Trans. San Diego Soc. Natur. Hist., VII, 21, San Diego, Calif. (1933). **b - 765**

**Shupack Benjamin** - Some *Foraminifera* from Western Long Island and New York Harbor [*Foraminifera quædam in* Long Island *occid. et portu* New York]. 2 figs., 1 pl., 1 table, Amer. Mus. Novit., 737, 1-12. New York (1934). **b - 766**

This paper describes Pleistocene and recent *Foraminifera* from of the regions mentioned above. Six species of *Elphidium* (= *Polystomella*), of which two are new, and two species of *Rotalia* are dealt with. The Pleistocene and recent *Foraminifera* are identical.

**Thalmann Hans E.** - On Homonyms in *Foraminifera* [*De homonymia Foraminiferorum*]. Contr. Cushman Labor. Foramin. Res., 139, 96-98. Sharon, Mass. (1933). **b - 767**

About fifty examples of homonymous names of species are listed in this paper.

**Warthin A. S., Jr.** - *Foraminifera* from the Ross Sea [*Foraminifera Maris* Ross *nomine*]. 5 figs., Amer. Mus. Novit., 721, 1-4. New York (1934). **b - 768**

350 specimens of *Foraminifera* have been identified, belonging to thirty-six species. The following new species are described : *Trochammina rossensis* and *Cyclammina gouldi*.

## Porifera.

**Bidder Geo. P.** - Sponges without Collared Cells [*Spongia quæ carent cellulis collare præditis*]. Nature, CXXXII, 3333, 441-442. London (1933). **b - 769**

**Brøndsted H. V.** - The Godthaab Expedition 1928. *Porifera* [*Expeditio* Godthaab *nomine a. 1928. Porifera*]. 2 maps, 6 figs., Medd. om Grønland, LXXIX, 5, 3-25. København (1933). **b - 770**

Description of 39 spp. from W. Greenland, the following of which are new : *Suberites baffini, Stylostichon baffini, Halichondria lambei,* and *Gellius rhaphidophorus.*

**Brøndsted H. V.** - *Porifera*. Medd. om Grønland, CIV, 12, 3-10. København (1933). **b - 771**

21 spp. are recorded from E. Greenland, 6 for the first time in this locality.

**Brøndsted H. V.** - Sponges [*Porifera*]. 26 figs., Mém. Mus. R. Hist. Natur. Belgique, h. sér., Résult. Scient. Voyage aux Indes Orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique, II, 15, 1-27. Bruxelles (1934). **b - 772**

The collection of Sponges described in this paper comprises 28 species, 8 of which are new to science. The remaining 20 species have all been recorded from various places in the Indo-Australian area, it will therefore not surprise to find them in the East Indian waters.

**Burton Maurice** - Observations on Post-larval Sponges of the Genus *Suberites* [*Observationes de Spongiis post-larvalibus ad genus « Suberites » pertinentibus*]. Ann. & Magaz. Natur. Hist., XIII, 74, 312-317. London (1934). **b - 773**

Characteristics of *Suberites carnosus, S. domuncula* and *Ficulina ficus*. Examples showing that the incrusting *Suberitidae* may be post-larval stages of other species.

**Burton Maurice** - Sponges [*Porifera*]. 2 pl., Great Barrier Reef Exped., 1928-29, Scient. Rep., IV, 14, 513-621. British Mus. (Natur. Hist.) London (1934). **b - 774**

In this paper 107 species are described, 17 of which are new and five new genera are erected. A special regard is given to the nomenclature and geographical distribution of the species dealt with.

**Burton Maurice** - Zoological Results of the Norwegian Scientific Expeditions to East-Greenland. III. Report on the Sponges of the Norwegian Expeditions to East-Greenland [*Resultatus zoologici ex Norvega expeditione scientiæ causa suscepta in Groënlandiam orient. III. Relatio de Spongiis collectis expeditione perdurante*]. 4 figs., tabl., 1 map, Norg. Svalbard- o. Ish-unders. Skr. Svalbard o. Ish., 61, 1-33. Oslo (1934). **b - 775**

The material dealt with here includes 54 species of which 1 is new to science, 26 are new to the fauna of Greenland, 43 are recorded from the area north of 71° 30' Lat. N. for the first time. A systematic list with remarks on the species is given. Two facts of interest are pointed out to which more consideration will be given later, i. e. the different distribution of deep-sea and shallow-water Sponges and the remarkable connections between the Arctic fauna and that of the Indo-Pacific and Sub-Antarctic regions.

**de Laubenfels M. W.** - New Sponges from the Puerto Rican Deep [*Spongia nova in* Puerto Rican Deep]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-Sea Expedition to the Puerto Rican Deep - Smiths. Miscell. Coll., (Publ. 3283), XCI, 17, 1-28. Washington, D. C. (1934). **b - 776**

In the entire collection there are only a few species belonging to the *Calcarea* (or *Calcispongiae*), and somewhat more of the *Hexactinellida* (or *Hyalospongiae*), but apparently no new species of either of these two orders.

All the new species are representatives of the *Demospongiae*. Twenty-seven new species are described in the present paper. These belong to 17 families, of which 4 are new, and 26 genera, of which 11 are new.

**Renouf L. P. W.** - On the Occurrence of *Plakina monolopha* Schultze on the South Coast of Co. Cork, I. F. S. [*Plakina monolopha* Schultze *in litoribus meridionalibus regionis* Co. Cork I. F. S.]. Ann. & Magaz. Natur. Hist., 10th ser., XIII, 318. London (1934). **b - 777**

**Topsent Emile** - Eponges observés dans les parages de Monaco (Première Partie) [*De observatis spongiis in propinquitatibus Arcis Monoeci. (Pars Iª)*]. 3 fig., Bull. Inst. Océanogr., 650, 1-42. Monaco (1934). **b - 778**

Description de plusieurs espèces, dont une seulement est nouvelle : *Timea fasciata*. Comparaison de la faune d'Halichondrines des parages de Monaco avec celles de Naples et de Banyuls.

**Topsent Emile** - Sur les *Aplysinopsis* Lend. [*Aplysinopsis* Lend.]. 4 fig., Bull. Inst. Océanogr., 655, 1-15. Monaco (1934). **b - 779**

Discussion au sujet de la systématique du genre *Aplysinopsis*. Description détaillée de plusieurs spécimens dans le but d'établir le polymorphisme de l'*Aplysinopsis* connue en Méditerranée, *A. massa* Szymanski.

**Topsent Emile** - Aperçu de la faune des Eponges calcaires de la Méditerranée [*Calcispongia. Quæstio de eorum fauna in Mari Mediterraneo*]. Bull. Inst. Océanogr., 659, 1-20. Monaco (1934). **b - 780**

D'après une revision des Eponges décrites par plusieurs savants, à commencer de Schmidt (1862), l'A. dresse une liste de 53 *Calcarea* actuellement citées en Méditerranée et fait de nombreux remarques à leur sujet.

## Coelenterata - Insulæ et scopuli coralliferi.

**Billard Armand** - Les Hydroïdes des Golfes de Suez et d'Akaba. [Mission Robert Ph. Dollfus en Egypte (Décembre 1927-Mars 1929)] [*Hydroida ad Sinus* Suez *et* d'Akaba *pertinentia*]. 9 fig., 1 pl., Mém. Inst. Egypte, XXI, 1-30. (1933). **b - 781**

Rapport sur 22 espèces, dont *Hebella dyssimetra*, *Diphasia heurteli* v. *simplex* et *Halecium labiatum* sont nouvelles. La distribution géographique des différentes espèces est étudiée en particulier.

**Broch H.** - Zur Kenntnis der Adriatischen Hydroidenfauna von Split [*Hydroida hadriatica e* Split *provenientia. Contributio in faunam cognoscendam*]. 45 Abb., Skr. Norsk. Vidensk.-Akad. Oslo, Mat.-Naturv. Kl., 4, 1-115. Oslo (1933). **b - 782**

**Dawydoff C.** - Quelques observations sur la morphologie externe et la biologie des *Ctenoplana* [*Ctenoplana. De morphologia externa deque biologia*]. 13 fig., Arch. Zool. Exp. et Gén., LXXV, 6, 103-128. Paris (1933). **b - 783**

Remarques générales sur la morphologie externe. Observations biologiques : état fixé, natation. Analyse morphologique de l'organographie externe : face orale, côtes méridiennes, organe aboral, bandelettes ciliées, appareil tentaculaire, papilles dorsales, gonades.

**Dons Carl** - Zoologische Notizen XXV. Ueber die nördlichsten Korallenriffe der Welt [*Notitiæ zoologicæ. XXV. De vadis coralliferis in extremis orbis regionibus septentrionalibus*]. 3 Abb., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 55, 206-209. Trondheim (1934). **b - 784**

Bei seiner Forschungsfahrt mit dem M/S. « Gunnerus » 1933 hat der Vf. lebendige *Lophohelia* an vielen Orten nördlich von Lofoten gefunden. Hydrographische Verhältnisse dieser Gewässer. Der Bau der Korallenriffe.

**Halish W.** - Beobachtungen an Scyphopolypen [*Inquisitiones in Scyphozoa*]. Zool. Anz., CIV, 296-304. Leipzig (1933). **b - 785**

**Iwasa Masao** - Revision of *Stylactis* and its Allied Genera, with Description of *Stylactella* (*Stylactis*) *yerii* n. sp. [*Recognitio Stylactidis et generum affinium. Adjungitur descriptio novæ speciei* « *Stylactella* (*Stylactis*) *yerii* »]. Journ. Fac. Sc., Hokkaido Imp. Univ., Ser. 6, Zool., II, 241-277. Sapporo (1934). **b - 786**

Discussion on the systematic position of the genera *Stylactis* and *Stylactella*, with description of 19 species. The new species described in this paper was found growing upon a living Gastropod, *Turricula* (*Surcula*) *kamakurana* in Sagami Bay.

**Iwasa Masao** - A New Athecate Hydroid from Misaki [*Hydrozoa athecata. De nova quadam specie e* Misaki *proveniens*]. 1 fig., Proc. Imp. Acad., X, 5, 289-291. Tokyo (1934). **b - 787**

The description of the new species, *Stylactella misakiensis* is based on a colony growing upon a univalve shell, *Nassarius dominulus*.

**Joubin L.** - Sur un Coralliaire rare de la Baie de Castiglione (*Cladocora patriarca* Pourtalès) [*Cladocora patriarca* Pourtalès *species rara in Baja nomine* Castiglione]. 4 fig., Bull. Trav. Stat. Aquicult. et Pêche Castiglione, 1933, 1, 35-42. Alger (1934). **b - 788**

L'A., en se basant sur un exemplaire récolté dans la Baie de Castiglione, complète la description de cette espèce donnée par Pourtalès et par Döderlein.

**Leloup E.** - Siphonophores calycophorides de l'Océan Atlantique tropical et austral [*Siphonophora calyconectæ ad Oceanum Atlanticum tropicalem oceanumque australem pertinentia*]. 15 fig., 1 carte, Bull. Mus. R. Hist. Natur. Belgique, X, 6, 1-87. Bruxelles (1934). **b - 789**

Les Siphonophores calycophorides pêchés par le « Meteor » (1925-1927) se répartissent en 20 genres comprenant 35 espèces, parmi lesquelles quatre espèces nouvelles : *Rosacea* (*Prayoides*) *intermedia*, *Eudoxia Tottoni*, *Galetta Meteori* et *Conophyes diaphana*.

A la fin de l'ouvrage il y a un tableau des espèces recueillies aux différentes stations.

**Leloup E.** - Siphonophores de Madras (Indes Anglaises) [*Siphonophora ad* Madras *pertinentia*]. Bull. Mus. R. Hist. Natur. Belgique, X, 9, 1-5. Bruxelles (1934). **b - 790**

Description de deux espèces de Calycophorides et de quatre espèces de Physophorides, déjà signalées dans l'Océan Indien.

**Leloup E.** - Trois Hydropolypes de la Baie de la Table, Afrique Australe [*Hydroidea tria ex Baja* de la Table, *in Africa australi*]. 6 fig., Bull. Mus. R. Hist. Natur. Belgique, X, 19, 1-8. Bruxelles (1934). **b - 791**

*Sertularella arbuscula* (Lamouroux) var. *quinquelaminata*, nov. var. ; *Plumularia filicaulis* Poeppig ; *Aglaophenia* (?) *holubi* nov. sp.

**Leloup E.** - Note sur les Hydropolypes de la Rade de Villefranche-sur-Mer (France) [*Nota de Hydroideis ex Rada* Villefranche-sur-mer (*in Gallia*)]. 2 fig., Bull. Mus. R. Hist. Natur. Belgique, X, 31, 1-18. Bruxelles (1934). **b - 792**

Première note qui donne un résumé des observations réalisées jusqu'à ce jour au sujet de la faune des Hydropolypes de cette rade. Cette liste contient 24 espèces.

**Pax Ferdinand** - Die Tierwelt der Nord- und Ostsee. Lief. 26. Teil 3.$e_1$ : *Anthozoa* (Teil 1 : Allgemeines, *Ceriantharia*, *Antipatharia*, *Zoantharia*, *Madreporaria*) [*De fauna Maris Nordici et Baltici. Fasc. 26. Pars 3* $e_1$ : *Anthozoa* (*Pars 1* : *Generalia*, *Ceriantharia*, *Antipatharia*, *Zoantharia*, *Madreporaria*)]. 80 S., Begr. von Grimpe G. und Wagler E. ; Hrsg. von Grimpe G., Akad. Verlagsg. m. b. H. Leipzig (1934). **b - 793**

Bemerkungen über die Anatomie, die Biologie, das Milieu und die geographische Verbreitung der Arten. Beschreibung von fünf *Madreporia*-Arten.

**Ranson Gilbert** - Révision de la collection des Méduses du Muséum National d'Histoire Naturelle (Suite I) [*Recognitio collectionis Medusarum ad* Muséum National d'Histoire Naturelle *pertinentis. Continuatio I*$^{a}$]. Bull. Mus. Nat. Hist. Natur., 2$^{e}$ Sér., V, 3, 223-229. Paris (1933). **b - 794**

Ordre II : *Leptomedusae*. Famille *Laodiceidae*. Genre *Laodicea*.

**Ranson Gilbert** - Révision de la collection des Méduses du Muséum National d'Histoire Naturelle (Suite II) [*Recognitio collectionis Medusarum ad*

Muséum National d'Histoire Naturelle *pertinentis* (*Continuatio IIa*)]. Bull. Mus. Nat. Hist. Natur., 2e sér., V, 4, 316-321. Paris (1933). **b - 795**

Fam. *Thaumantiadae*, genre *Melicertidium*, *M. octocostatum*. Fam. *Eucopidae*, genre *Eucope*, *E. globosa*.

**Ranson Gilbert** - Révision de la collection des Méduses du Muséum National d'Histoire Naturelle [*Recognitio collectionis Medusarum ad* Muséum National d'Histoire Naturelle *pertinentis*]. Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 1, 68-77. Paris (1934). **b - 796**

Genre *Eucheilota* McCrady, 1857, *E. maculata* Hartlaub, 1897. Famille *Eutimidae* Haeckel, 1879 sens. emend. Morphologie comparée des Eutimidés (A suivre).

**Ranson Gilbert** - Révision de la collection des Méduses du Muséum National d'Histoire Naturelle. V. [*Recognitio collectionis Medusarum ad* Muséum National d'Histoire Naturelle *pertinentis. V*]. Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 2, 177-183. Paris (1934). **b - 797**

Les genres compris dans la famille *Eutimidae*. Révision des espèces suivantes : *Eutonina scintillans* (Bigelow, 1910), *Eutimalphes modesta* Hartlaub, 1908, *Eutima elephas* Haeckel, 1879, *Phortis pellucida* (Will, 1844).

**Ranson Gilbert** - Révision de la collection des Méduses du Muséum National d'Histoire Naturelle : VI. [*Recognitio collectionis Medusarum ad* Muséum National d'Histoire Naturelle *pertinentis. VI*]. 2 fig., 1 table, Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 3, 271-279. Paris (1934). **b - 798**

Genre *Eirene* Eschscholtz, 1829, *E. viridula* (Péron et Lesueur, 1809). L'A. rappelle les caractéristiques essentielles de cette espèce, assez commune depuis le Danemark jusqu'à Gibraltar et dans la Méditerranée, pour la comparer avec les Méduses trouvées dans tous les océans et rapportées à cette espèce. Il précise les caractères morphologiques et examine sa répartition géographique.

**Ranson Gilbert** - Note sur une Méduse rare, *Tiaranna affinis* Hartlaub, récoltée par le « Président Théodore Tissier » au cours de sa première croisière (hiver 1933) [*Nota de specie rara « Tiaranna affinis »* Hartlaub *ex priore navigatione navis nomine* « Président Théodore Tissier » (*Hieme a. 1933*)]. Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 5, 436-442. Paris (1934). **b - 799**

Description de cette espèce, récoltée dans le Golfe de Gascogne, au large de la côte nord d'Espagne. Ombrelle. Estomac, canaux radiaires. Gonades. Tentacules. Exombrelle. Répartition géographique. Affinités.

**Rawlinson Ruth** - A Comparative Study of *Metridium senile* (L.) var. *dianthus* (Ellis) and a Dwarf Variety of this Species Occurring in the River Mersey, with a Discussion on the Systematic Position of the Genus *Metridium* [*Studium comparativum speciei « Metridium senile »* (L.) *var. « dianthus »* (Ellis) *varietatisque cuiusdam nanae huius speciei quæ vivit in flumine* Mersey *nomine. Adiungitur discussio de positione systhematica generis « Metridium »*]. 5 figs., 1 table, Journ. Mar. Biol. Assoc., XIX, 2, 901-919. Plymouth (1934). **b - 800**

There is close agreement between the anatomy of a small *Metridium*-like anemone found at Dingle, Liverpool, and the typical form of *M. senile* var. *dianthus*. A considerable amount of variation occurs in both the forms. The resemblances and the differences between the Dingle form and *M. senile* indicate that the former is a dwarf variety of the latter.

A discussion on the systematic position of the genus *Metridium* lies in favour of placing it in a family by itself (*Metridiidae*).

**Rylov V. M.** - *Alcyonaceae* gesammelt von der Expedition nach Franz-Josefs Land 1929 [*Alcyonaceae collectae inter expeditionem ad Terram Francisci Josephi, a. 1929*]. (Russ. Text). Trans. Inst. Scient. Expl. North, 49, 166-170. Moscow (1931). **b - 801**

**Stiasny G.** - *Scyphomedusæ*. 12 figs., 2 pl., Discovery Rep. (Govmt. Depend. Falkland Isls.), VIII, 329-395. Univ. Press. Cambridge (1934). **b - 802**

*Tamoya haplonema*, *Periphylla hyacinthina*, *Nausithoe punctata*, *Atolla wyvillei*, *A. chuni*, *Pelagia noctiluca*, *Chrysaora fulgida*, *Desmonema gaudichaudi*, *D. chierchiana* and *Phacellophora ornata* are described and their distribution studied.

**Thiel M. E.** - *Madreporaria*. Zugleich ein Versuch vergleichender Oekologie der gefundenen Formen [*Madreporaria. Agitur etiam de oecologia comparata formarum inventarum*]. Mém. Mus. R. Hist. Natur. Belgique, 1 Abb., 21 Taf., Résult. scient. Voyage Indes Orientales néerl. LL. AA. RR. le Prince et la Princesse Léopold de Belgique, II, 12, 3-175. Bruxelles (1932). **b - 803**

Die belgische Expedition nach Niederländisch Indien hat ein Gebiet bereist, das in Bezug auf seine Steinkorallenfauna noch wenig bekannt ist. An die systematische Beschreibung des Materials ist daher ein tiergeographischer Teil angeschlossen, dem schliesslich ein oekologischer Teil folgt.

Im « Systematischen Teil », der den Hauptteil der Arbeit einnimmt, werden 58 Arten beschrieben, die sich auf 26 Gattungen und 12 Familien verteilen und unter denen 10 neu sind. Die Bearbeitung konnte nur auf Grund der Hartteile vorgenommen werden, da der Weichkörper mit wenigen Ausnahmen nicht erhalten war. Besondere Aufmerksamkeit ist der Synonymie und der Berücksichtigung der Variation der verschiedenen Kolonieteile geschenkt worden, die die Wiedererkennung der einzelnen Arten immer so erschwert hat. Im « Tiergeographischen Teil » sind in einer Tabelle alle Fundorte der beschriebenen Arten zusammengestellt, und im « Oekologischen Teil » wird versucht die biologische Seite des Korallenriffproblemes zu fördern.

**Uchida Tohru** - A Saemostome *Medusa* with Some Characters of *Rhizostomæ* [*Agitur de medusa quadam ad Sæmostomas pertinente, nonnullis caracteribus Rhizostomarum prædita*]. 2 figs., Proc. Imp. Acad., X, 10, 698-700. Tokyo (1934). **b - 804**

While studying specimens of *Aurelia limbata* collected from several localities in Hokkaido and Saghalien, the A. found that this species has several characters in common with *Rhizostomae*.

**Uchida Tohru & Hanaoka Kin-Ichiro** - On the Morphology of a Stalked Medusa, *Thaumatoscyphus distinctus* Kishinouye [*De morphologia speciei « Thaumatoscyphus distinctus »* Kishinouye]. Journ. Fac. Sc., Hokkaido Imp. Univ., Ser. 6, Zool., II, 135-153. Sapporo (1933). **b - 805**

Detailed description of the external and microscopical anatomy with notes on the formation of nematocysts, abnormalities and habits (AA.).

**Uchida Tohru & Hanaoka Kin-Ichiro** - Anatomy of Two Stalked *Medusæ* with Remarks on the Distribution of the *Stauromedusæ* in Japan [*Medusæ duæ pedunculatæ earumque anatomia. Agitur etiam de distributione Stauromedusarum per Japoniam*]. Journ. Fac. Sc., Hokkaido Imp. Univ., Ser. 6, Zool., II, 211-239. Sapporo (1934). **b - 806**

A hexamerous specimen of *Haliclystus borealis* and the young stages of *H. steinegeri* are described in this paper. Notes on the distribution of the Japanese stalked *Medusae* are added.

**Verwey J.** - Koraalriffen in de Baai van Batavia en zonlicht [*De Scopulis coralliferis in Baja Batava deque luce solis*]. Trop Nat., 137. Batavia (1934). **b - 807**

**Wagin V. L.** - *Hydroidea*, im Sommer 1931 während der Expedition auf dem Expeditions-Schiff « Lomonossow » im Karischen und im Barents Meere gesammelt [*Hydroidea collecta æstate a. 1931 perdurante expeditione navis* « Lomonossow », *per mare Karense et mare Barentium*]. 1 Taf., Trans. Arct. Inst., IX, 79-87. Leningrad (1934). **b - 808**

Insgesamt sind auf 16 Stationen in den beiden Meeren 16 Arten von *Hydroidea* gesammelt worden. Es werden ein systematisches Verzeichnis der beobachteten Gattungen, sowie der Ort des Fanges für jede Gattung angegeben.

**Wiman C.** - Ein neuer Typus gotländischer Korallenriffe [*Coralliorum banchi Gotlandici omnino novi*]. 2 Abb., Bull. Geol. Inst. Univ. of Uppsala, XXIV, 279-286. Uppsala (1933). **b - 809**

Die Beobachtungen, welche dieser Arbeit zugrunde liegen, datieren sich schon von 1897-1898. Es war nämlich die Absicht des Vf. von diesen Riffen eine längere Untersuchung fortzusetzen, worüber er auch am Ende dieser Arbeit seine Bemerkungen hinzufügt. Er erzählt von seinen Forschungen auf der Insel « Stora Karlsö » beschreibt den hier entdeckten neuen Typus von Korallenbildung, wo zahlreiche Kolonien verschiedener Gattungen, hauptsächlich *Thecia*, aufgefunden worden sind.

**Yabe Hisakatsu & Eguchi Motoki** - Probable Generic Identity of *Stephanophyllia* Michelin and *Micrabacia* M. Edwrds and J. Haime [*Stephanophyllia et Micrabacia. Quaestio de eorum probabili aequalitate*]. 5 figs., Proc. Imp. Acad., X, 5, 278-281. Tokyo (1934). **b - 810**

Corresponding to the absorption of *Micrabacia* into *Stephanophyllia*, the family name *Micrabaciidae* Vaughan emend. Wells is to be altered to *Stephanophyllidae*.

## Vermes.

**Allgén Carl** - Vorkommen und Häufigkeit freilebender mariner Nematoden [*Nematodes marini liberi. Quæstio de* « *habitat* » *et frequentia*]. Zool. Anz., CIV, 253-256. Leipzig (1933). **b - 811**

**Allgén Carl** - Ueber einige freilebende Nematoden von der Südküste Schwedens [*Nematodes quidam liberi ad litora meridionalia Suetiæ pertinentes*]. Tab., Fol. Zool. & Hydrobiol., V, 2, 290-305. Riga (1934). **b - 812**

Brackwasser-Nematoden mit den folgenden neuen Arten: *Oncholaimus oxyuroides* n. sp., *Euchromadora Strandi* n. sp. Uebereinstimmungen dieser Nematodenfauna mit der einiger nahegelegenen Küstengebiete. Alphabetisches Artenverzeichnis.

**Allgén Carl** - Freilebende marine Nematoden aus Hallands Väderö und der nahegelegenen Küste Schonens (Südschweden). Ein Beitrag zur Kenntnis der Nematodenfauna des südlichen Kattegatts [*Nematodes marini liberi ad insulam* Hallands Väderö *et ad litus propinquum regionis* Schonens *pertinentes. Contributio in cognoscendos Nematodes ad* Kattegatt *merid. pertinentes*]. 13 Abb., Fol. Zool. & Hydrobiol., VI, 1, 49-86. Riga (1934). **b - 813**

Von den hier beschriebenen Arten sind die folgenden neu: *Halalaimus Strandi* n. sp., *Dermatolaimus parelegans* n. sp., *Oncholaimus parachiltoni* n. sp., *Paralinhomoeus Strandi-brevicaudatus* n. sp., *Tylenchus* (*Chitinotylenchus*) *zostericola* n. sp.

**Allgén Carl** - Die marinen Tylenchen [*Tylenchi marini*]. Fol. Zool. & Hydrobiol., VI, 1, 86-87. Riga (1934). **b - 814**

Kurze Charakteristik der bisher bekannten Arten: *Tylenchus fucicola* de Man, *T. mediterraneus* Micoletzky, *T.* (*Chitinotylenchus*) *gracilis* de Man, *T.* (*Chitinotylenchus*) *zostericola* Allgén.

**Allgén Carl** - Weitere Nematoden aus dem Oeresund [*Nematodes novi ad regionem* Oeresund *pertinentes*]. 1 Taf., 1 Abb., Fol. Zool. & Hydrobiol., VII, 1, 97-110. Riga (1934). **b - 815**

Beschreibung von 12 neuen Nematoden (S. auch Cap. Zool. Deel VI, Avl. 2, 1934).

**Allgén Carl** - Zwei seltene nordische Brackwasser-Nematoden der terrestrischen Gattung *Mononchus* Bastian: *M. spectabilis* Ditlevsen und *M. rotundicautus* Skwarra [*Nematodes duo rari nordici in aqua salmacida viventes ad genus terrestre* « *Mononchus* » *pertinentes*]. 4 Abb., Fol. Zool. & Hydrobiol., VII, 1, 117-122. Riga (1934). **b - 816**

Kurze Uebersicht früherer Funde von Brackwasserarten. Beschreibung der oben genannten Arten mit Vergleichstabelle zwischen *M. papillatus* Bast. und *M. spectabilis* Ditl.

**Allgén Carl** - Ueber einige freilebende Nematoden aus « Skelderviken » und ihre nordische Verbreitung [*Nematodes quidam liberi ad* Skelderviken *pertinentes. Agitur etiam de eorum distributione per regiones septentr.*]. 2 Abb., Fol. Zool. & Hydrobiol., VII, 1, 122-130. Riga (1934). **b - 817**

Die hier beschriebenen Nematoden gehören 13 Arten an, die sich auf 12 Genera verteilen.

**Allgén Carl** - Bipolarität in der Verbreitung freilebender mariner Nematoden [*Nematodes marini liberi. Quæstio de bipolaritate et distributione*]. Zool. Anz., CV, 331-334. Leipzig (1934). **b - 818**

**Annenkova N.** - Meeres-Paraoniden im Fernen Osten der U. S. S. R. [*Paraonidæ in maribus ad extremas Orientis regiones in dicione reipublicæ sovieticæ pertinentibus*]. (In Russ. u. Dtsch.). 3 Abb., C. R. Acad. Sc. U. R. S. S., III, 8/9, 656-661. Léningrad (1934). **b - 819**

Beschreibung, Diagnosis und Verbreitungsgebiet von *Paraonis ivanovi* sp. n., *P.* (*Paraonides*) *lyriformus* sp. n., *Aricidea ramosa* sp. n., *A. antennata* sp. n.

**Annenkova N.** - Kurze Übersicht der Polychaeten der Litoralzone der Bering Insel (Kommandor-Inseln), nebst Beschreibung neuer Arten [*Polychæta ad insulam* Bering *pertinentia. Relatio brevior cum descriptione novarum specierum*]. Zool. Anz., CVI, 322-333. Leipzig (1934). **b - 820**

**Berkeley E. & Berkeley C.** - *Polychæta* of the Pacific Coast [*Polychæta in litoribus Oceani Pacifici*]. Ann. Rep. Biol. Board Canada, 1932, 77. Ottawa (1933). **b - 821**

During identification of specimens of *Polychaeta* collected by workers at the Pacific Biological Station, exceptionally large individuals of *Heteromastus filobranchus* with enormous gill development have been discovered. Habitat of the form in Saanich inlet.

**Brandtner Paul** - Ergebnisse einer von E. Reisinger & O. Steinböck mit Hilfe des Rask-Ørsted Fonds durchgeführten zoologischen Reise

in Grönland 1926. 5. *Plagiostomidæ* [*Resultatus ex zoologica navigatione in Groënlandiam, a. 1926 peracta a Fundatione* Rask Ørsted. *V. Plagiostomidæ*]. 21 Abb., 4 Taf., Vidensk. Medd. Dansk naturhist. Foren. i København, XCVII, 87-150. København (1933-34). **b - 822**

Allgemeiner Teil: Körpergestalt, Grösse, Farbe. Integument. Drüsen. Muskulatur. Mesenchym. Nervensystem. Sinnesorgane. Verdauungsapparat. Exkretionssystem. Geschlechtsorgane. System. Spezieller Teil: Bestimmungstabelle. Diagnose der 14 neuen Spezies. Literaturverzeichnis.

**Broeke (ten) J. M. A.** - Sipunculiden [*Sipunculidæ*]. Mém. Mus. R. Hist. Natur. Belgique, h. sér., Résult. Scient. du Voyage aux Indes Orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique, II, 13, 3-4. Bruxelles (1933). **b - 823**

*Physcosoma scolops* und *Ph. nigrescens*.

**Dons Carl** - Zoologiske Notiser. XXI. Systematiske og faunistiske bemerkninger om *Miroserpula inflata* [*Notitiæ zoologicæ. XXI. Miroserpula inflata. Observationes systematicæ et faunisticæ*]. 1 Abb., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 7, 24-27. Trondheim (1934). **b - 824**

Descrizione delle differenti parti del corpo di questa specie e confronto con *Chitinopoma* e *Hyalopomatus*.

**Elmhirst Richard** - Enteropneusts in the Clyde Sea-Area [*Enteropneusta in area marina fluminis* Clyde]. Nature, CXXXIV, 3379, 183. London (1934). **b - 825**

Unpublished records from the Clyde sea-area to extend the summary of the known distribution of British Enteropneusts given in Nature of June 16 by Prof. J. W. R. Brambell and H. A. Cole.

**Fauvel P.** - Sur les caractéres spécifiques des Syllidiens [*Syllidæ earumque caracteres speciales*]. Ann. Sc. Natur., Zool., X^e^ sér., XVII, 263-271. Paris (1934). **b - 826**

**Fauvel Pierre** - Polychètes nouvelles de l'Annam [*Polychæta nova ad* Annam *pertinentia*]. 3 fig., Bull. Mus. Nat. Hist. Natur., 2^e^ sér., VI, 1, 40-43. Paris (1934). **b - 827**

Diagnose, coloration, localités des deux nouvelles espèces: *Halosydna* (*Alentia*) *annamita* et *Nereis torta*.

**Fauvel Pierre** - Annélides polychètes (Mission Robert Ph. Dollfus en Egypte, Décembre 1927-Mars 1929) [*Annelida polychæta* (*Expeditio a* Robert Ph. Dollfus *suscepta in Aegyptum, a decembre 1927 ad mensem martium 1929*]. 6 fig., Mém. Inst. Egypte, XXI, 31-83. (1933). **b - 828**

Rapport sur 78 espèces recueillies principalement dans le Golfe de Suez et dans le Golfe d'Akaba, dont une variété est nouvelle: *Syllis depressa* v. *Dollfusi*.

**Fauvel Pierre** - Annélides polychètes de Rovigno d'Istria [*Annelida polychæta Arupinensia*] (En franç., rés. all.), 4 fig., Thalassia, I, 7, 1-78. Venezia (1934). **b - 829**

Dans cette étude des Annélides Polychètes recueillies par M. le Dr. A. Vatova à Rovigno et aux environs immédiats, 106 espèces, appartenant à 25 familles différentes, ont été brièvement décrites.

Cette faune renferme naturellement une grande majorité d'espèces déjà connues de la Méditerranée et de l'Adriatique, mais si aucune de ces espèces n'est nouvelle une dizaine d'entre elles, cependant, n'avaient pas encore été signalées en Méditerranée.

**Filipjev I. N.** - The Classification of the Free-living Nematodes and their Relation to the Parasitic Nematodes [*Nematodes liberi. Quæstio de distributione in classes deque eorum correlationibus cum nematodibus parasitis*]. 8 pl., Smiths. Miscell. Collections (Publ. 3216), LXXXIX, 6, 1-63. Washington, D. C. (1934). **b - 830**

Several opinions as to the position of the *Nematoda* in the animal kingdom. Characters that the class *Nematoda* possesses in addition to the chief characters shared with the other *Aschelminthes*. Present state of the classification of the free-living and parasitic *Nematoda* and their relation from a physiological point of view. The classification proposed by the A.

**Fujiwara Tsutomu** - On a New Species of Japanese *Polychæta*, *Travisia japonica* sp. nov. [*Travisia japonica species nova*]. 11 figs., 2 pl., Jour. Sc. Hiroshima Univ., Ser. B, Div. 1 (Zool.), II, 6, 91-103. Tokyo (1933). **b - 831**

**Gravier Ch. & Dantan J. L.** - Annélides polychètes recueillies au cours de pêches nocturnes à la lumière sur les côtes d'Annam [*Annelida polychæta collecta perdurantibus piscationibus nocturnis lucis auxilio, apud litora regionis* Annam]. 129 fig., Ann. Inst. Océanogr., XIV, 3, 37-136. Paris (1934). **b - 832**

Les Annélides Polychètes qui font l'objet de ce travail ont été recueillies dans les parages de Nhatrang, au voisinage de Cauda, siège de l'Institut Océanographique de l'Indochine. Cette collection comprend trois familles: celle des Néréidiens, celle des Syllidiens et celle des Polyophthalmiens. La plus largement représentée des trois est la première. Un certain nombre de membres de cette famille sont absolument cosmopolites. La détermination des formes hétéronéréidiennes est très difficile. La famille des Syllidiens est surtout représentée par des bourgeons sexués appartenant à divers genres et aussi par des stolons différents de la souche et à dimorphisme sexuel très accusé de la tribu des Autolytés. Parmi les Ophéliens, presque tous les individus capturés sont des Polyophthalmes qui offrent à considérer un polymorphisme déconcertant dans la pigmentation, ou bien de plus rares *Armandia*.

**Horst (van der) C. J.** - The Burrow of an Enteropneust [*Agitur de refugio cuiusdam vermis ad Enteropneusta pertinentis*]. 1 fig., Nature, CXXXIV, 3396, 852. London (1934). **b - 833**

The burrows of different species of Enteropneusts as described by various authors. The typical form of the burrow of *Saccoglossus inhacensis*, that is of a more permanent nature than is usually the case in *Enteropneusta*.

**Kato Kojiro** - Polyclad Turbellarians from the Neighborhood of the Mitsui Institute of Marine Biology [*Turbellaria polycladida collecta in propinquitatibus instituti* Mitsui Institute of Marine Biology]. 14 figs., 1 pl., Jap. Journ. Zool., Trans., VI, 1, 123-138. Tokyo (1934). **b - 834**

Locality, morphological features and reproductive organs are described for 16 species, 6 of which appear to be new.

**Kato Kojiro** - *Leptostylochus gracilis*, a New Polyclad Turbellarian [*Leptostylochus gracilis, species nova ad Turbellaria polycladida pertinens*]. 2 figs., Proc. Imp. Acad., X, 6, 374-377. Tokyo (1934). **b - 835**

Description of this new species, which was discovered underneath stones in somewhat brackish water on the shore near the Mitsui Institute of Marine Biology.

**Kükenthal Willy (Gegr. von)** - Handbuch der Zoologie: eine Naturgeschichte der Stämme des Tierreiches. Band 2: *Vermes Amera*, *Vermes*

*Polymera, Echiurida, Sipunculida, Priapulida* [*Manuale zoologicum. Historia naturalis animalium. Vol. 2: Vermes Amera, Vermes Polymera, Sipunculida, Priapulida*]. Hrsg. von Thilo Krumbach, 16, Teil 1, 193-320 + xiv, Walter de Gruyter und Co. Berlin und Leipzig (1933). **b - 836**

**Monro C. C. A.** - Notes on a Collection of *Polychaeta* from South Africa [*Polychæta. Notæ de collectione quadam ex Africa septentr. proveniente*]. 20 figs., Ann. and Magaz. Natur. Hist., XI, 64, 487-509. London (1933). **b - 837**

Descriptive data on *Amphinomidae, Polynoidae, Chrysopetalidae, Syllidae Nereidae, Glyceridae, Eunicidae, Lumbrineridae, Cirratulidae, Chlorhaemidae, Capitellidae, Maldanidae, Terebellidae, Sabellidae, Serpulidae* and *Sabellaridae.*

**Monro C. C. A.** - On a Collection of *Polychæta* from the Coast of China [*Polychæta. Collectio quædam e litoribus sinensibus proveniens*]. 10 figs., Ann. and Magaz. Natur. Hist., XIII, 75, 353-380. London (1934). **b - 838**

Description of 40 spp. (belonging to 17 families), the following of which are new: *Marphysa sinensis, Neoleprea amoyensis.*

**Naville A.** - Quelques formes épitoques d'Annélides polychètes nouvelles ou peu connues, pêchées à la lumière dans la Baie de Banyuls [*Annelida polychæta nova seu parum cognita, lucis auxilio in baja* Banyuls *capta. Formæ epitochæ*]. Ann. Sc. Natur., Zool., X$^e$ sér., XVI, 2, 169-208. Paris (1933). **b - 839**

**Okuda Shiro** - Some Polychaete Annelids used as Bait in the Inland Sea [*Annelida polychæta quibus ut esca utitur*]. 2 pl., Ann. Zool. Jap., XIV, 2, 243-253. Tokyo (1933). **b - 840**

In this paper 6 species belonging to 4 families are described. Distribution of *Halla parthenopeia*, which was found for the first time in the Pacific.

**Okuda Shiro** - The Polychaete Genus, *Acrocirrus* from Japanese Waters [*Polychæta generis «Acrocirrus» in aquis japonicis*]. 9 figs., Journ. Fac. Sc., Hokkaido Imp. Univ., Ser. 6, Zool., II, 4, 197-209. Sapporo (1934). **b - 841**

*Acrocirrus Uchidai* n. sp., *A. muroranensis* n. sp. and *A. validus.*

**Okuda Shiro** - Occurrence of *Priapulus caudatus* in Northern Japan [*Priapulus caudatus in Japonia septentrionali*]. 3 figs., Proc. Imp. Acad., X, 2, 115-116. Tokyo (1934). **b - 842**

Brief description of this species found in the vicinity of the Akkeshi Marine Biological Station.

**Okuda Shiro** - A New Species of Errantiate Polychaete, *Marphysa tamurai* n. sp. [*Polychæta errantia. De nova quadam specie: Marphysa tamurai*]. 9 figs., Proc. Imp. Acad., X, 8, 521-523. Tokyo (1934). **b - 843**

Description of the new species and remarks on its affinities.

**Reimers Hans** - Morphologie der Polychaetengattung *Sphaerodorum* [*De morphologia generis «Sphærodorum»*]. 45 Abb., Zool. Jahrb. Abt. Syst. Oekol. u. Geogr. Tiere, LXIV, 1, 41-110. Jena (1933). **b - 844**

Eingehende Beschreibung der verschiedenen Körperteile der *Sphaerodorum balticum* sowie der Segmentorgane der *Ephesia gracilis.* Vergleich zwischen diesen Gattungen und Erörterung ihrer systematischen Stellung.

**Rioja Enrique** - Consideraciones acerca de la sistemática de los géneros *Serpula, Crucigera* e *Hydroides* [*Considerationes de systematica generum: Serpula, Crucigera et Hydroides*]. 12 figs., Bol. Soc. Españ. Hist. Natur., XXXIV, 4/5, 205-209. Madrid (1934). **b - 845**

Differencias dos caracteres morfológicos que separan los géneros *Serpula, Crucigera* e *Hydroides* de la subfamilia *Serpulinae.* El opérculo y su simetria, como caracteres por la distinción de las especies.

**Rioja Enrique** - Una nueva especie del género *Aricia* (*A. cornidei* n. sp.) de la ria de Pontevedra (Anel. Pol.) [*Aricia cornidei species nova collecta ad accessum fluminis* Pontevedra]. 15 figs., Bol. Soc. Españ. Hist. Natur., XXXIV, 8/9, 433-438. Madrid (1934). **b - 846**

Descripción detallada de la nueva especie. Afinidades.

**Schuurmans Stekhoven J. H.** - Die Tierwelt der Nord- und Ostsee. Lief. 26, Teil 6. f. *Nematomorpha* [*De fauna Maris Nordici et Maris Baltici. Fasc. 26. Pars 6 f: Nematomorpha*]. Begr. von Grimpe G. und Wagler E.; Hrsg. von Grimpe G. Akad. Verlagsg. m. b. H. Leipzig (1934). **b - 847**

**Sprehn C.** - Die Tierwelt der Nord- und Ostsee. Lief. 26. Teil 4. $c_2$: *Cestoidea* [*De fauna Maris Nordici et Maris Baltici. Fasc. 26. Pars 4 $c_2$: Cestoidea*] Begr. von Grimpe G. und Wagler E; Hrsg. von Grimpe G., 61-92. Akad. Verlagsg. m. b. H. Leipzig (1934). **b - 848**

**Stephen A. C.** - The *Echiuridæ, Sipunculidæ,* and *Priapulidæ* of Scottish and Adjacent Waters [*Echiuridæ, Sipunculidæ et Priapulidæ ad Scotiam eiusque propinquitates pertinentes*]. Proc. R. Phys. Soc., XXII, 4, 159-185. (1934). **b - 849**

This study deals with the distribution of the species of these groups in Scottish area, with special reference to the genera: *Priapulus, Sipunculus, Phascolosoma* and *Echiurus,* that are of economic importance as food for several food Fishes.

**Treadwell Aaron L.** - New Polychaetous Annelids [*Annelida Polychæta nova*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep. 2 pl., Smiths. Miscell. Coll. (Publ. 3236), XCI, 8, 1-9. Washington, D. C. (1934). **b - 850**

The new species described in this paper are the following: *Melaenis tropicus, Eupholoe acuminata, E. cirrata, Hyalinoecia branchiata, Alciopa mutilata, Maldanella fimbriata.*

**Uchida Tohru** - Eine neue Urannelidenart *Polygordius pacificus* n. sp. [*Polygordius pacificus, species nova*]. 1 Abb., Proc. Imp. Acad., XI, 3, 119-120. Tokyo (1935). **b - 851**

Kurze Beschreibung einer neuen Urannelidenart *P. pacificus*, welche vom Vf. gelegentlich eines Aufenthaltes in der Biologischen Anstalt Misaki im feinen Sande an einem Ebbe-Strande erbeutet worden ist, und welche durch die eigentümliche Beschaffenheit des Pygidiums, sich von *P. ijimai* und von den anderen Arten derselben Gattung unterscheiden lässt.

**Wesenberg-Lund Elise** - The Scoresby Sound Committee's 2nd East Greenland Expedition in 1932 to King Christian IX's Land. Leader: Ejnar Mikkelsen. Gephyreans and Annelids [*De altera expeditione* East Greenland *nomine a Comitatu* Scoresby Sound *a. 1932 instructa ad Terram Regis Christiani IXi Duce* Ejnar Mikkelsen. *Gephyrea et Annelida*]. 9 figs., Medd. om Grønland, CIV, 14, 1-38. København (1934). **b - 852**

The Gephyreans of the present material comprise both Priapulids, Sipunculids and Echiurids. An interesting feature is that *Priapulus bicaudatus* is represented, as the finding place in Mikisfjord is considerably more southern than the finding places hitherto known in East Greenland.

As to the Annelids 36 species were found; the following three are not hitherto known from Greenland: *Pseudoscalibregma longisetosum, Lysilla Lovéni* and *Chone Dunéri.*

**Wheeler J. F. G.** - Nemerteans from the South Atlantic and Southern Oceans [*Nemertini Oceani Atlantici merid. aliorumque Oceanorum meridionalium*]. 2 pl., Discovery Rep. (Govmt. Depend. Falkland Isls.), IX, 215-294. Univ. Press. Cambridge (1934). **b - 853**

**Wülker G. & Schuurmans Stekhoven J. H. Jr.** - Die Tierwelt der Nord- und Ostsee. Lief. 25. Teil 5.a: *Nematoda* (Allgemeiner Teil) [*De fauna Maris Nordici et Maris Baltici. Fasc. 25. Pars 5 a: Nematoda* (*Generalia*)]. 64 S., Begr. von Grimpe G. und Wagler E. Hrsg. von Grimpe G., Akad. Verlagsg. m. b. H. Leipzig (1933). **b - 854**

## Echinodermata.

**Clark Austin H.** - A New Sea-urchin from Florida [*Echinus novus ex Florida*]. Journ. Wash. Acad. Sc., XXIV, 1, 52-53. Washington, D. C. (1934). **b - 855**

*Astropyga magnifica.*

**Clark Austin H.** - A Voracious Starfish [*Luidia clathrata vorax*]. Science, LXXIX, 2054, 432. New York (1934). **b - 856**

Record of a starfish with the rays 145 mm. long from the center of the disk that had swallowed a sand-dollar or key-hole Urchin (*Mellita quinquiesperforata*) 60 mm. in diameter, and apparently had died as a result of the operation.

**Clark Austin H.** - Two New Crinoids [*Crinoidea duo nova*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep, 2 pl., Smiths. Miscell. Coll. (Publ. 3231), XCI, 4, 1-5. Washington, D. C. (1934). **b - 857**

Of the two species described in this paper: *Psathyrometra acuta* and *Diplocrinus Carolinae*, the former heretofore was known only from the Indian and Pacific Oceans.

**Clark Austin H.** - A New Genus of Brittlestars [*Quironia Johnsoni n. gen. n. sp. ad* Puerto Rico *pertinens*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep, 1 pl., Smiths. Miscell. Coll. (Publ. 3248), XCI, 13, 1-3. Washington, D. C. (1934). **b - 858**

Diagnosis, locality, description of the species *Quironia Johnsoni* n. gen. n. sp., a curious ophiuran belonging to the family *Hemieuryalidae.*

**Clark Austin H.** - A New Starfish from Puerto Rico [*Odinia antillensis ad* Puerto Rico *pertinens*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep. 1 pl., Smiths. Miscell. Coll. (Publ. 3249), XCI, 14, 1-3. Washington, D. C. (1934). **b - 859**

Detailed description of the new species: *Odinia antillensis.* The discovery of this species in the West Indian region is especially interesting as the family *Brisingidae* is known from the Caribbean region only from the single somewhat problematic species *Hymenodiscus.*

**Collin L.** - Curieuse photographie d'Oursins [*Echinorum photographia quædam notanda*]. 1 fig., Bull. Soc. Océanogr. France, XIII, 72, 1277. Paris (1933). **b - 860**

Description d'une curieuse photographie représentant une colonie de *Strongylocentrotus lividus-Toxocidaris livida* habitant une petite mare au nord de la grève du Riz, près de Douarnenez.

**Engel H.** - Holothuries [*Holothuriæ*]. 25 fig., 1 pl., 6 cartes, Mém. Mus. R. Hist. Natur. Belgique, h. sér., Résult. Scient. du Voyage aux Indes Orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique, III, 13, 1-42. Bruxelles (1933). **b - 861**

La collection suivante a été étudiée par l'A.: *Holothuria atra, H. vitiensis, H. monacaria; Stichopus variegatus; Pseudocucumis quinquangularis, P. africanus.* Il fait la description des animaux récoltés, une revision des *Pseudocucumis* et l'étude de leur distribution dans le monde.

**Engel H.** - Über Echinodermen aus der Nordsee und dem Nordatlantik [*Echinodermata Maris Nordici et Oceani Atlantici septentr.*]. Zool. Anz., CVII, 23-30. Leipzig (1934). **b - 862**

**Gislén Torsten** - A Small Collection of Crinoids from St. Helena (Papers from Dr. Th. Mortensen's Pacific Expedition, 1914-16, 67) [*Crinoidea. Collectio parva ex insula Sct. Helenæ proveniens*]. 9 figs., 1 pl., Vidensk. Medd. Dansk Naturhist. For. København, XCIII, 475-485. København (1933). **b - 863**

*Crinometra transversa* and *Monachocrinus incrassatus.*

**Gopola Aiyar R. & Krishma Menon M.** - Observations on the Spicules of *Salmacis bicolor* (Agassiz) and *Stomopneustes variolaris* (Lamarck) (*Echinoidea*) [*Observationes de spiculis specierum* « *Salmacis bicolor* » (Agassiz) *et* « *Stomopneustes variolaris* » (Lamarck)]. Ann. & Magaz. Natur. Hist., 10th ser., XIII, 468-473. London (1934). **b - 864**

**Heding S.** - On Some Holothurians from Hong Kong [*Holothuriæ quædam ex* Hong Kong]. 5 figs., 1 pl., Hong Kong Natural., Suppl., 3, 15-25. (1934). **b - 865**

*Colochirus crassus* v. *dyscritus; Phyllophorus cornus; Halodeima dicorona.*

**Heding S. G.** - On a New Dendrochirote Holothurian from off Timor [*De holothuria quadam nova ad familiam* « *Dendrochirotae* » *pertinente longe a litoribus insulae* Timor]. 2 figs., 1 pl., Ann. & Magaz. Natur. Hist., XIII, 76, 456-464. London (1934). **b - 866**

*Psolicucumis apneumona.*

**Livingstone Arthur A.** - Some Genera and Species of the *Asterinidæ* [*Asterinidæ. Nonnulla genera et species*]. 5 pl., Rec. Austral. Mus., XIX, 1, 1-20. Sydney (1933). **b - 867**

**Livingstone Arthur A.** - A New *Mediaster* from Queensland [*Mediaster novus ex* Queensland]. 1 pl., Rec. Austral. Mus., XIX, 1, 21-22. Sydney (1933). **b - 868**
*M. praestans.*

**Mortensen Th.** - On an Extraordinary Ophiurid, *Ophiocanops fugiens* Koehler. With Remarks on *Astrogymnotes, Ophiopteron,* and on an Albino *Ophiocoma.* (Papers from Dr. Th. Mortensen's Pacific Expedition 1914-16, 60) [*Ophiocanops fugiens* Koehler *extraordinarius. Adiunguntur observationes de generibus « Astrogymnotes », « Ophiopteron » et « Ophiocoma » albino*]. 16 figs., 1 pl., Vidensk. Medd. Dansk Naturhist. For. København, XCIII, 1-22. København (1932). **b - 869**
The genus is made type of the fam. *Ophiocanopidae* which stands apart in the *Ophiurida.* Synonymes and emendments of *Astrogymnotes* Clark. Description of an albino *O. scolopendrina.*

**Mortensen Th.** - *Ophiuroidea.* 52 figs., 3 pl., The Danish Ingolf-Exped. (Direction Zool. Mus. Univ.), IV, 8, 1-122. Copenhagen (1933). **b - 870**
Report on 61 spp. belonging to 11 families, 30 genera, collected in the N. Atlantic from the Faroes to Davis Strait. A tabular discussion of the distribution of the *Ophiuroidea* in the N. Atlantic is given. The following species are new : *Ophiacantha spinosella, O. cuspidata* (*Ophiotreta*) *danae, O. hamula, Amphilepis ingolfiana, Ophiopyren striatum, Nidrosia ophiurae* (embryo state), *Ophiura albida* v. *tuberculosa, O. nitida, O. irrorata* v. *polyacantha.*

**Mortensen Th.** - Biological Observations on Ophiurids, with Descriptions of two New Genera and four New Species (Papers from Dr. Th. Mortensen's Pacific Expedition 1914-16, 63) [*Ophiuroidea. Observationes biologicæ et descriptio duorum generum novorum et specierum novarum quattuor*]. 7 figs., 1 pl., Vidensk. Medd. Dansk Naturhist. For. København, XCIII, 171-195. København (1933). **b - 871**
*Nannophiura* n. gen. type *N. lagani* n. sp., *Amphiodia dividua* n. sp., *Amphilycus* (resembling *Amphiopholis*) n. gen., type *A. androphorus, Ophionereis vivipara* n. sp. A list is given of all known viviparous Ophiurids with their sexual characters.

**Mortensen Th.** - Echinoderms of South Africa (*Asteroidea* and *Ophiuroidea*) (Papers from Dr. Mortensen's Pacific Expedition 1914-16, 65) [*Echinodermata ad Africam Merid. pertinentia.* (*Asteroidea et Ophiuroidea*)]. 91 figs., 12 pl., Vidensk. Medd. Dansk Naturhist. For. København, XCIII, 215-400. København (1933). **b - 872**
A tabular survey of all the *Asteroidea* and *Ophiuroidea* occurring in S. African seas from Natal to Lüderitz Bay. Of the total number of Asteroids now known from that region, no less than 58 are known from nowhere else, and of the Ophiurids 56 of the total number of 82 are unknown elsewhere.

**Mortensen Th.** - The Echinoderms of St. Helena (other than Crinoids) (Papers from Dr. Th. Mortensen's Pacific Expedition 1914-16, 66) [*Echinodermata ad insulam Sct. Helenæ pertinentia, Crinoideis exceptis*]. 38 figs., 3 pl., map, Vidensk. Medd. Dansk Naturhist. For. København, XCIII, 401-472. København (1933). **b - 873**
Brief review of earlier records and list of 39 known species. Description of the waters adjacent to the island and analysis of the echinoderm fauna of the coast and coastal plateau. The following spp. are new : *Astropecten sanctae-helenae, A. variegatus, Luidia aciculata, Narcissia trigonaria* v. *helenae, Linckia formosa, Ophiacantha prolata, O. nitens, O. trivialis O. helenae, Ophiopyren atlanticum, Ophiophycis gracilis, Ophiomusium spinigerum, Echinocardium connectens.*

**Mortensen Th.** - Studies of Indo-Pacific Euryalids. [*De Euryalidis ad Oceanum Pacificum Oceanumque Indicum pertinentibus*]. 57 figs., 5 pl., Vidensk. Medd. Dansk Naturhist. For. København, XCVI, (Festskr.) II, 1-76. København (1933). **b - 874**
Discussion of different families of Euryalids. The following forms are new : *Astrothrombus chrysanthi* v. *ornatus, Astrothorax.* Key to 6 spp. : *A. misakiensis* v. *balinensis, A. tesselata, Astrochele pacifica, Astrohelix bellator* v. *paucidens, Astroglymma robillardi* v. *spinosum, Astroceras.* Diagnosis and key to spp. : *A. pergamenum* v, *granulatum, A. annulatum, A. annulatum* v. *gemmiferum ; Astroscolex* n. subg. ; *Ophiuropsis lymani* v. *simplex.*

**Mortensen Th.** - Echinoderms of Hong Kong [*Echinodermata ex* Hong Kong *provenientia*]. 9 figs., 8 pl., Hong Kong Natural., Suppl., 3, 3-14. Hong Kong (1934). **b - 875**
A list of Echinoderms previously recorded from Hong Kong is given. Twenty species are described as new to the region.

**Onoda Katsuzo** - On the Orientation of the Regular Sea-urchin *Heliocidaris crassispina* [*Heliocidaris crassispina. Quaestio de orientatione*]. 6 figs., Jap. Journ. Zool., V, 2, 159-164. Tokyo (1933). **b - 876**
Experimental results obtained by the author prove that there is a definite locomotory orientation in Spatangoids as well as in *H. crassispina.*

**Tortonese Enrico** - La conoscenza anatomica dei Clipeastridi, con note sul *Laganum laganum* (Leske) [*Clypeastridae. Quæstio de earum notione anatomica, cum notis de specie «Laganum laganum»*]. 4 fig., Boll. Zool., IV, 4, 139-147. Napoli (1933). **b - 877**
Note anatomiche comparative e loro importanza per la comprensione dell'affinità tra i vari generi di Clipeastridi per una loro più esatta suddivisione in specie.

**Tortonese Enrico** - I Crinoidi attuali e la loro diffusione [*Crinoidea hodierna eorumque propagatio*]. Natura (Riv. Sc. Natur.), XXIV, 4, 159-167. Milano (1933). **b - 878**
Breve storia dei Crinoidi dal periodo Cambriano ad oggi, con cenno dei primi autori che se ne sono occupati. L'importanza biologica dei Crinoidi non è inferiore a quella paleontologica, poichè il numero di generi e di specie viventi è molto superiore a quanto si ritiene di solito. Notizie sulla distribuzione batimetrica e geografica dei Crinoidi.

**Tortonese Enrico** - Echinodermi del Mar Ligure [*Echinodermata Maris Ligustici*]. Atti Soc. Ital. Sc. Natur. e Mus. Civico Stor. Natur., LXXIII, 3, 213-227. Milano (1934). **b - 879**
Studio biologico e sistematico della fauna echinologica del Mar Ligure. Sono comprese forme appartenenti agli Asteroidi, Ofiuroidi, Echinoidi, Oloturoidi e Crinoidi.

## Mollusca.

**Adam W.** - *Cephalopoda.* 15 fig., Mém. Mus. R. Hist. Natur. Belgique, h. sér., Résult. Scient. Voyage aux Indes Orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique, II, 16, 1-28. Bruxelles (1934). **b - 880**

*Nautilus pompilius, N. umbilicatus, Spirula spirula, Sepia officinalis, S. rostrata, Loligo duvaucelii, Sepioteuthis lessoniana, Octopus rugosus, O. horridus, O. globosus, O. teuthoides, O.* sp. A., *O.* sp. B, *O.* sp. C.

**Allan Joyce K.** - Opisthobranchs from Australia [*Opisthobranchia ex Australia provenientia*]. 1 pl., Rec. Austral. Mus., XVIII, 9, 443-450. Sydney (1933). **b - 881**

New species: *Aglaia taronga, A. sanguinea, Pleurobranchaea dorsalis, Dendrodoris davisi, D. albobrunnea, Discodoris palma,* and *Nembrotha livingstonei.*

**Alpers Fr.** - Beitrag zur Kenntnis der Lebensweise von *Murex* [*Contributio in biologiam generis « Murex » cognoscendam*]. Pubbl. Staz. Zool. Napoli, XIII, 2, 163-171. Napoli (1934). **b - 882**

Beobachtungen über den Fressakt der *Murex brandaris, Murex trunculus* und *Murex erinaceus* in dem Golf von Neapel, welche mit *Natica josephina, Mytilus edulis, Ostrea edulis, Nassa mutabilis, Aplysia depilans, Loligo vulgaris* u. a. gefüttert wurden.

**Archer Allan F.** - A New Variety of *Viviparus contectoides* (W. G. Binn), from Jackson Co., Florida [*Varietas nova speciei « Viviparus contectoides »* (W. G. Binn) *ex* Jackson Co. *in Florida proveniens*]. 3 figs., Nautilus, XLVII, 1, 18-20. Philadelphia (1933). **b - 883**

*Viviparus contectoides* v. *Goodrichi.*

**Bartsch Paul** - A Note on *Ryssota* (*Lamarckiella*) *oweniana* Pfeiffer [*Nota de Ryssota* (*Lamarckiella*) *oweniana* Pfeiffer]. Nautilus, XLVI, 3, 105-106. Philadelphia (1933). **b - 884**

Key to 3 subspecies.

**Bartsch Paul** - New Mollusks of the Family *Turritidae* [*Mollusca nova ad familiam « Turritidae » pertinentia*]. 8 pl., Reports on the Collections Obtained by the First Johnson-Smithsonian Expedition to the Puerto Rican Deep. - Smiths. Miscell. Coll. (Publ. 3229), XCI, 2, 1-29. Washington, D. C. (1934). **b - 885**

6 new genera and 21 new species are described in this paper.

**Bergenhayn J. R. M.** - Eine neue *Cryptoplax*-Art aus dem ostindischen Inselmeer [*Nova quædam species generis « Cryptoplax » ad Archipelagus Indiarum orientalium pertinens*]. 1 Taf., Zool. Anz., CIV, 5/6, 157-161. Leipzig (1933). **b - 886**

*Cryptoplax mjöbergi* n. sp.

**Boutan Louis** - Quelques idées générales sur le groupe des Mollusques et sur la répartition océanographique des Céphalopodes dans l'espace et dans le temps [*Mollusca. Generalia. Cephalopoda. Quæstio de distributione oceanographica quoad spatium quoad tempus*]. 18 fig., Bull. Trav. Stat. Aquicult. et Pêche Castiglione 1932, 2, 9-67. Alger (1934). **b - 887**

Les tendances scientifiques actuelles dans les Sciences Naturelles. Comparaison des Mollusques et des Vertébrés; caractères des Mollusques. Différences des restes fossiles des Vertébrés et des Mollusques. Le Nautile. La Spirule. L'Argonaute. Les autres Céphalopodes. Les Céphalopodes fossiles. Quelques réflexions sur les hypothèses et en particulier sur celles qui ont trait à l'origine de la vie à la surface du globe.

**Buddendrock (von) W.** - Beobachtungen über nesselnde Tintenfische [*Inquisitiones in Cephalopoda urticantia*]. Biol. Ztrbl., LIV, 284-287. Leipzig (1934). **b - 888**

**Bulatoff G. A. & Rjabtschikoff P. I.** - Eine neue Gattung aus der Familie der *Teredinidæ* aus dem Japanischen Meer [*De novo quodam genere ad familiam « Teredinidae » pertinente in Mari Japonico*]. 8 Abb., 1 Taf., Zool. Anz., CIV, 5/6, 165-176. Leipzig (1933). **b - 889**

*Zachsia*, neue Gattung für *Z. zenkewitschi* und *Z. lignaui.*

**Coen Giorgio** - Saggio di una Sylloge Molluscorum Adriaticorum [*Sylloge Molluscorum Adriaticorum. Exemplum*]. 10 tav., Mem. R. Comit. Talassogr. Ital., No. CXCII, viii + 229 pp. Venezia (1933). **b - 890**

Saggio sulla fauna di Molluschi adriatici rilevato dal materiale raccolto nel Museo Civico di Storia Naturale in Venezia, (costituito da quattro importantissime collezioni: Spinelli, A. P. Ninni, Stalio, Adriatica e da una quinta raccolta personale dell'A.), dal materiale esaminato nel Museo Civico di Storia Naturale di Milano, nel Gabinetto del Seminario Vescovile di Chioggia, con l'aggiunta dei nomi di quelle specie non riscontrate in queste raccolte e citate come adriatiche in opere classiche sulla malacofauna adriatica, e corredato di osservazioni sul habitat e sulla sinonimia delle specie.

**Corea Lois F.** - New Marine Mollusks [*Mollusca marina nova*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep, 3 pl., Smiths. Miscell. Coll. (Publ. 3258), XCI, 16, 1-9. Washington, D. C. (1934). **b - 891**

The present paper deals with a small well-defined group consisting of six species which appears to be unnamed and to which is here given the name *Buchema*, a new subgenus of *Carinodrillia* Dall.

**Cotton Bernard C.** - *Pelecypoda* of the Flindersian Region, Southern Australia [*Pelecypoda ex regione* Flindersian *provenientia in Australia meridionali*]. 7 figs., Rec. South Austral. Mus., V, 2, 173-178. Adelaide (1934). **b - 892**

The species listed in this paper belong to the following families: *Veneridae, Petricolidae, Tellinidae, Semelidae, Garidae, Solenidae, Donacidae, Mactridae, Amphidesmatidae, Hiatellidae, Gastrochaenidae, Teredidae. Circe weedingi, Gastrochaena frondosa* and *Bankia Gabrieli* are described as new.

**David Lore** - Zoologische Ergebnisse der Reisen von Dr. Kohl-Larsen nach den Subantarktischen Inseln bei Neuseeland und nach Südgeorgien [*Resultatus zoologici expeditionum a D.* Kohl-Larsen *peractarum in insulas sub-antarcticas præter Novam Zelandiam et Georgiam meridionalem*]. 6 Abb., Senckenbergiana, XVI, 2/3, 126-137. Frankfurt a. M. (1934). **b - 893**

Verzeichnis mit Angabe von Fundort, und Beschreibung der bedeutendsten Formen von Mollusken, Loricaten, Gastropoden, Bivalven von Südgeorgien, Stewart Insel und Campbell-Insel. Zu Thiele's (1912 S. 256) Bemerkungen über die antarktischen Schnecken und Muscheln ist nichts wesentlich Neues hinzugefügt.

**Davies A. M.** - The Bases of Classification of the *Lamellibranchia* [*Lamellibranchiata. Fundamenta ad instituendam distributionem in classes*]. Proc. Malacol. Soc. London, XX, 6, 322-326. London (1933). **b - 894**

**Dons Carl** - Zoologiske Notiser XVIII. Om utbredelsen av *Hanleya nagelfar* [*Notitiæ zoologicæ. XVIII. De distributione speciei « Hanleya nagelfar »*] 3 figs., Kongel. Norsk. Vidensk. Selsk. Forh., V, 39, 151-153. Trondheim (1393). **b - 895**

Short note on 5 specimens of *Hanleya nagelfar* and one of *Hanleya abyssorum* with table indicating locality, length, anterior and posterior valves of these species.

**Forrest J. E., Waterston A. R. & Stephen A. C.** - Scottish Records of Cephalopods [*Notitiæ de Cephalopodis Scotis*]. Scottish Natural., 205, 29. Edinburgh (1934). **b - 896**

**Frost N.** - Notes on a Giant Squid (*Architeuthis* sp.) Captured at Dildo, Newfoundland in December, 1933 [*« A. Harveyi » gigas in Dildo (Terranova) captus mense Decembri 1933*]. 5 figs., 3 pl., Rep. Newfoundland Fish. Res. Comm., Ann. Rep., II, 2, App. C., 100-113. Plymouth (1934). **b - 897**

Synopsis of previous records of capture of giant Cephalopods in Newfoundland waters. Description of the giant squid captured at Dildo, Trinity Bay, Newfoundland. Brief description of particular organs: caudal fin, eyes, tentacular arms, sessile arms, radula, internal organs, pigmentation. Discussion of species: differences between *Architeuthis Harveyi* and *A. princeps*.

**Frost N. & Thompson H.** - Hydrographic and Biological Investigations. C. Squid [*Loligines*]. 1 map, Rep. Newfoundland Fish. Res. Comm., Ann. Rep., II, 2, 59-64. Plymouth (1934). **b - 898**

Distribution in the Newfoundland waters of *Illex illecebrosus*, and *Gonatus fabricii*.

**Graham Alastair** - The Structure and Relationships of Lamellibranchs Possessing a Cruciform Muscle [*Lamellibranchiata musculo cruciformi prædita. Quæstio de structura et affinitate*]. 13 figs., Proc. R. Soc. Edinburgh, 1933-34, LIV, 2, 158-187. Edinburgh (1934). **b - 899**

Comparative description of the anatomy of the five following Bivalves belonging to the *Tellinacea: Gari tellinella, Tellina crassa, Macoma balthica, Scrobicularia plana*, and *Donax vittatus*. Description of one member of the *Solenidae, Cultellus pellucidus*. Anatomy of two members of the *Solecurtidae, Solecurtus scopula* and *S. chamasolen*. On the basis of these descriptions the family *Solecurtidae* is shown to be more properly classified with the tribe *Tellinacea* than with the *Solenidae*. The relationships of the above Lamellibranchs are discussed.

**Grimpe G.** - Studien über die Cephalopoden des Sundagebietes. I. Zur Kenntnis der Gattung *Loliolus* Steenstrup 1856 [*Cephalopoda in regione nomine* Sunda. *I. Inquisitiones ad genus « Loliolus »* Steenstrup *1856 cognoscendum*]. 8 Abb., 1 Taf., Jenaische Ztschr. Naturwiss. (Festschr. Ludwig Plate), LXVII, 469-486. Jena (1932). **b - 900**

Weitläufiger Bericht über die Morphologie und Systematik von *Loliolus typus*, für welche den Namen *L. buitendijki* n. sp. s. subsp.. vorgeschlagen wird, da ein gewisser Zweifel in Bezug auf die Identität und die Lage des Originales *L. typus* vorliegt. Neues über die Taxonomie der Familie *Loliginidae*.

**Hertlein Leo George** - Three preoccupied Names in *Pectinidæ* [*Pectinidae. Quaestio de tribus nominibus quibus jam usum est*]. Nautilus, XLVII, 2, 62-64. Philadelphia (1933). **b - 901**

*Pecten waluensis* (*P. thomasi* Mansfield, preocc.), *P. suteri* (*P. radiatus* Hutton, preocc.), *P. vaun* v. *wythei* (/*P. vaun flabellum*, Cooke preocc.).

**Hertling H.** - Kamm-Muscheln bei Helgoland [*Pectinidæ ad regionem* Helgoland *pertinentes*]. 7 Abb., Natur u. Volk, LXIV, 9, 355-362. Frankfurt a. M. (1934). **b - 902**

*Pecten maximum, P. jacobaeus, Chlamys opercularis* (L.), *Ch. varia* (L.), *Ch. tigerina*. Bewegungs- und Ruhestellungen, verschiedene Arten von Fortbewegung; Körperbau: Augen und ihre Funktion; Lebensweise und Habitat. Bibliographie.

**Kuroda Tokubei & Kikuchi Kanzaemon** - Studies on the Molluscan Fauna of Toyama Bay. 1 [*Studia faunæ Molluscorum Bajæ* Toyama] (In Jap., Engl. Rés.). 4 figs., 1 pl., 1 map, Venus, IV, 1, 1-14. Kyoto (1933). **b - 903**

Description of forms inhabiting the calcareous sandy rocks of the tidal zone of the western shore; of the common littoral species of the southern and western coasts of Honshû, Shihoku and Kyûshû. Notes on 8 species of *Dentalium*, four of which are new.

**Labbé Alphonse** - Les Silicodermés Labbé du Muséum d'Histoire Naturelle de Paris. Première partie : Classification, formes nouvelles ou peu connues [*Silicodermata* Labbé *ad* Muséum d'Histoire Naturelle de Paris *pertinentia. Pars Iª : systematica, formæ novæ et parum cognitæ*]. 81 fig., Ann. Inst. Océanogr., XIV, 5, 173-246. Paris (1934). **b - 904**

Après avoir résumé brièvement la morphologie externe et interne des Silicodermés et discuté sur leur classification, l'A. décrit en détail les spécimens du Muséum.

On a pu constater que cette collection est très riche et intéressante parce qu'elle présente un grand nombre de Dendrobranchiés, qui sont presque inconnus des auteurs qui ont étudié les Oncidiadés.

**Labbé Alphonse** - Opisthobranches et Silicodermés (Oncidiadés) [*Opisthobranchia et Silicodermata*]. 39 fig., 1 pl., Mém. Mus. R. Hist. Natur., h. sér., Résult. Scient. Voyage aux Indes Orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique, II, 14 (1), 1-83. Bruxelles (1934). **b - 905**

La collection étudiée par l'A. comprend : deux Tectibranches, dont l'espèce *Xanthonella* (*Phanerophtalmus*) *Engelii*, est nouvelle ; un nudibranche ; un prosobranche diotocarde ; sept espèces d'Oncidiadés, dont trois nouvelles : *Oncidium Leopoldi, O. Straelenii, O. Astridae*.

L'A. fait un exposé sommaire au sujet du sous-ordre des *Silicodermatae* nov., pour préciser les principaux traits de leur organisation et pour souligner un certain nombre de données nouvelles.

**Lamy Ed.** - Coquilles marines recueillies par M. E. Aubert de la Rüe dans l'Amérique du Sud [*Conchæ marinæ collectæ ab* E. Aubert de la Rüe *in America meridionali*]. 1 fig., Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 5, 432-435. Paris (1934). **b - 906**

Liste des Coquilles recueillies en trois points : dans le Pacifique sur la côte de Colombie, dans l'Atlantique à Wilhemstaad (île de Curaçao) et à Cristobal [Colon] (isthme de Panama). Description détaillée et illustration de la nouvelle espèce *Drillia Auberti* n. sp.

**Leloup E.** - Amphineures [*Amphineura*]. 2 pl., Mém. Mus. R. Hist. Natur. Belgique, h. sér., Résult. Scient. du Voyage aux Indes Orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique, II, 13, 15-33. Bruxelles (1933). **b - 907**

Les Amphineures, recueillis aussi bien sur les côtes baignées par l'Océan Indien que sur les côtes des îles de l'Océan Indo-Pacifique, appartiennent à huit espèces réparties en six genres différents. *Acanthochites Leopoldi* est une espèce nouvelle.

**Leloup E.** - Contributions à l'étude de la faune belge. IV. Les Polyplacophores de la côte Belge [*Contributiones ad faunam belgicam studendam. IV. Polyplacophora e litoribus belgicis*]. 1 carte, Bull. Mus. R. Hist. Natur. Belgique, X, 17, 1-23. Bruxelles (1934). **b - 908**

Les Chitons étudiés appartiennent à quatre espèces arctiques : *Lepidopleurus asellus, L. cancellatus ; Trachydermon cinereus* et *T. albus*.

Pour chaque espèce l'A. donne : bibliographie, origine et matériel, distribution géographique.

**Løyning Paul** - *Loricata* and *Gastropoda* from the Siberian Arctic Ocean [*Loricata et Gastropoda in Oceano Arctico siberiano*]. 4 figs., 2 pl., Norw. North Polar. Exped. « Maud » 1918-1925, Scient. Res., V, 14, 1-20. (1932). **b - 909**

List of 16 spp. New species : *Buccinum totteni* v. *crassisculpta, Neptunea satura* v. *elongata, Anomalisipho conulus* monstr. *reversa*, and *Bela nobilis* v. *brevispira*.

**Nomura Stihei & Tunoda Haruhiko** - Recent *Mollusca* from Onahama, Hukusima-Ken [*Mollusca recentiora ex* Onahama (Hukusima-Ken *in Japonia*) *provenientia*] (In Jap.). Saitô Hô-on Kw. Hak. Zikô Tok., 1-19. (1933). **b - 910**

The present paper deals with : 91 species of *Pelecypoda*, 101 of *Gastropoda*, 5 of *Amphineura*, 9 of fresh-water and 3 of land Mollusks.

**Odhner Nils H.** - The *Nudibranchiata*. 3 pl., Brit. Antarctic (Terra Nova) Exped., 1910, Natur. Hist. Rep., Zool., VII, 5, 229-310. Brit. Mus. (Natur. Hist.). London (1934). **b - 911**

The Nudibranchs are divided by the A. into four groups: *Doridacea, Arminacea, Eolidacea* and *Dendronotacea*. One new genus and nine new species are described. Consideration about the gills of a new species of *Bathydoris*.

**O'donoghue C. H.** - Kelaart's Work on *Nudibranchiata* of Ceylon [*Nudibranchiata ceylonensia. Opus a* Kelaart *peractum*]. 1 pl., Proc. Malacol. Soc. London, XX, 4, 221-226. London (1933). **b - 912**

A critical study of 8 papers with a copy of the plates.

**Okada Yaichirô & Fujita Tadashi** - Distribution of Japanese *Turbo* Shells [*De distributione specierum japonensium ad genus « Turbo » pertinentium*] (In Jap.). 9 figs., 1 map, Venus, IV, 2, 101-113. Kyoto (1933). **b - 913**

19 species and 3 subspecies of Japanese *Turbo* are described and notes on their distribution given.

**Otuka Yanosuke** - Description of a New *Dentalium* from Southern Japan [*De specie nova ad genus « Dentalium » pertinente ex Japonia merid.*]. 6 figs., Venus, IV, 3, 159-161. Kyoto (1933). **b - 914**

*Dentalium (Antalis) Marukawai*, n. sp.

**Parenzan Pietro** - Revisione delle specie mediterranee del genere *Astropecten* [*Recognitio specierum mediterranearum ad genus « Astropecten » pertinentium*]. 10 fig., Boll. Zool., V, 6, 201-222. Napoli (1934). **b - 915**

L'A. passa in rivista le specie mediterranee del genere *Astropecten* e stabilisce una netta distinzione dell'*A. myosurus* Perrier, considerato finora come semplice varietà dell'*A. bispinosus* per insufficienza di caratteri distintivi costanti. Mette in evidenza importanti anomalie strutturali in esemplari di *A. irregularis* var. *pentacanthus*, anomalie che corrispondono al carattere specifico della forma chiamata *A. irregularis* var. *serratus* dell'Atlantico. Egli presenta infine una chiave analitica per la determinazione delle specie mediterranee e dà notizie sulla loro ecologia.

**Phillips J. B.** - Description of a Giant Squid Taken at Monterey, with Notes on Other Squid Taken off the California [*Loligo gigas apud* Monterey *captus. Descriptio cum notis de aliis « Loligo » longe a litoribus Californianis captis*]. Calif. Fish and Game, XXIX, 2, 128-136 (1933). **b - 916**

**Pilsbry H. A. & Aguayo C. G.** - Marine and Freshwater Mollusks new to the Fauna of Cuba [*Mollusca marina et Mollusca aquæ dulcis nova in fauna insulæ* Cuba]. Nautilus, XLVI, 4, 116-123. Philadelphia (1933). **b - 917**

Topical list.

**Powell A. W. B.** - The High-tidal *Mollusca* of Rangitoto Island, Auckland ; with Descriptions of a New Genus and two New Species [*Mollusca ad insulam* Rangitoto *pertinentia, tempore maris accessus. Descriptio novi cuiusdam generis duarumque novarum specierum*]. 7 figs., Trans. & Proc. New Zealand Inst., LXIII, 2, 144-153. Wellington, N. Z. (1933). **b - 918**

*Rangitotoa* n. gen. with the sp. *R. insularis*, n. sp. and *Kellia maoria* n. sp.; 6 other spp. are described with indications of the spp. they are feeding on.

**Powell A. W. B.** - Two New Molluscs of the *Pectinidae* from 600 to 700 Fathoms, four hundred Miles west of New Plymouth [*Mollusca duo nova ad familiam Pectinidarum pertinentia quæ jacent in profunditatem 600-700 brachiarum*]. 1 pl., Trans. & Proc. New Zealand Inst., LXIII, 3, 370-372. Wellington, N. Z. (1933). **b - 919**

*Palliolum fosterianum* and *Chlamys kiwaensis*.

**Prashad B.** - A Revision of the Indian *Nuculidæ* [*Nuculidæ ad regionem Indicam pertinentes. Recognitio*]. 1 pl., Arch. f. Naturgesch., Ztschr. f. System. Zool., n. f., II, 1, 124-135. Leipzig (1933). **b - 920**

**Prashad B. & Jnanendra Lal Bhaduri** - The Pearl Oysters of Indian Waters [*Ostreæ margaritiferæ in aquis indicis*]. Rec. Indian Mus., June. Calcutta (1933). **b - 921**

*Pinctada margaritifera, P. vulgaris, P. chemnitzi, P. anomioides, P. atropurpurea*. Their morphological characteristics, their distribution, their variability.

**Pruvot-Fol A.** - *Opisthobranchiata*. (Mission Robert Ph. Dollfus en Egypte, Décembre 1927-Mars 1929). Mém. Inst. Egypte, XXI, 89-160. (1933). **b - 922**

Les formes suivantes sont nouvelles : *Phyllobranchillus orientalis ; Armina Semperi* v. *erythraea, Goniodoridella Savi-*

*gnyi, Archidoris O'Donoghuei, Glossodoris quadricolor, G.* (?) *albomaculata* v. *erythraea, G. Dollfusi, Spongiodoris rigida, Erythrodoris Dollfusi, Phyllodesmium bellum* (*Eolidia bella* Rüpp. et Leuck. = *P. hyalinum* Ehrbg.).

**Richardson Frank** - Diurnal Movements of the Limpets *Lottia gigantea* and *Acmaea persona* [*De motibus diurnis specierum* « *Lottia gigantea* » *et* « *Acmaea persona* »]. Journ. Entomol. & Zool., XXVI, 4, 53-55. Claremont, Calif. (1934). **b - 923**

The objects of this study were several: first, to consider, the natural daily movements of the Limpets in question; second, to see if any action of the Limpets might be homologous or analogous to the homing instinct of bird; and finally, if the Limpets have any attachment, instinctive or otherwise, for a definite spot or region and if so what determining factors are involved.

**Schenck Hubert G.** - Classification of Nuculid Pelecypods [*Pelecypoda nuculidæ eorumque distributio in classes*]. 7 tabl., 5 pl., Bull. Mus. R. Hist. Natur. Belgique, X, 20, 1-78. Bruxelles (1934). **b - 924**

Review of the literature. Taxonomic units eligible for selection as members of the family *Nuculidae*. Definition of the family *Nuculidae*. Size of the family *Nuculidæ*. List of names that have been used with generic name *Nucula*. What is a family?

**Schindewolf O. H.** - Concerning the Evolution of the *Cephalopoda* [*De evolutione Cephalopodorum*]. Biol. Rev., IX, 4, 458-459. London (1934). **b - 925**

The A. answers to the criticism made by Spath in his article on « The Evolution of the *Cephalopoda* » (Biol. Rev., VII, 1933) and lists the principal conclusions of his investigations contrary to those arrived at by Spath.

**Stevenson J. A.** - Occurrence of Squids at St. Andrews [*De specie* « *Loligo pealii* » *in regione* St. Andrews]. Ann. Rep. Biol. Board Canada, 1933, 36. Ottawa (1934). **b - 926**

Results of observations on the occurrence and the size of *L. pealii* taken by the Biological Station weir during the summer 1933, and on the occurrence of the cestode parasite, *Phyllobothrium loliginis*, in the alimentary tracts of the squids.

**Strong A. M., Hanna G. D. & Hertlein L. G.** - The Templeton Crocker Expedition of the Academy of Sciences, 1932. Marine *Mollusca* from Acapulco, Mexico, with Notes on other Species [*De expeditione* Templeton Crocker *ab Academia Scientiarum a. 1932 peracta. Mollusca marina ex* Acapulco *in Mexico, cum notis de aliis speciebus*]. 2 pl., Proc. Calif. Acad. Sc., XXI, 10, 117-130 S. Francisco, Calif. (1933). **b - 927**

Among the spp. recorded there are three new ones, *Mitra zaca, Calliostoma bonita*, and *C. rema*.

**Takagi S.** - Measurements of Shells of *Turbo cornutus* from Shimané Prefecture [*Turbo cornutus a Præfectura regionis nomine* Shimané *proveniens. Quæstio de mensura eius concharum*] (In Jap.). 4 figs., Venus, IV, 3, 181-183. Kyoto (1933). **b - 928**

**Thiele Johannes** - Handbuch der systematischen Weichtierkunde. Teil 3 [*Manuale de systematica Molluscorum. Pars 3a*)]. 110 Abb., 779-1022, Gustav Fischer. Jena (1934). **b - 929**

Mit diesem Teil, wo die *Scaphopoda*, die *Bivalvia* und die *Cephalopoda* behandelt werden, ist die systematische Bearbeitung der Weichtiere beendet. Nachträge und Berichtigungen für den ersten und zweiten Teil des Handbuches. Alphabetisches Verzeichnis der im dritten Teil genannten Gattungen, Untergattungen und Sektionen.

**Thorson G.** - The Scoresby Sound Committee's 2nd East Greenland Expedition in 1932 to King Christian IX's Land. Leader: Ejnar Mikkelsen. Marine Molluscs [*Expeditio altera Comitatus* Scoresby Sound *ad Terram Regis Christiani IX$^{i}$, Duce* Ejnar Mikkelsen. *Mollusca marina*]. 1 pl., Medd. om Grønland, CIV, 17, 1-8. København (1934). **b - 930**

List of species belonging to the groups of: *Lamellibranchiata, Scaphopoda, Prosobranchiata, Opisthobranchiata*. For each species the locality where it has been taken, is given. Some considerations on the distribution of the species.

## Arthropoda.

**Antonescu C. S.** - Ueber Mysideen aus dem Süss- und Brackwasser Rumäniens [*Mysidæ aquæ dulcis et salmacidæ Romaniæ*]. Notat. Biol., II, 1. (1934). **b - 931**

**Bàcesco Mihai** - Contributions à l'étude des Mysidés de la Mer Noire ainsi que des limans et des lacs en relation avec la mer ou avec le Danube [*Mysidæ Ponticæ et ad lacunas lacusque cum mari et Danuvio communicantes pertinentes*]. Ann. Scient. Univ. Jassy, XIX, 1/4, 331-338. Jassy (1934). **b - 932**

*Siriella jaltensis, S. clausii; Grastrosaccus sanctus, G.* sp.; *Leptomysis pontica; Limnomysis benedeni; Paramysis baeri, P. bakuensis; Diamysis bahirensis, D. pengoi; Mesomysis köryeri, M. kowalewski, M. intermedia.*

**Balss Heinrich** - Beiträge zur Kenntnis der Gattung *Pilumnus* (*Crustacea Decapoda*) und verwandter Gattungen [*Contributio in genus* « *Pilumnus* » *generaque affinia cognoscenda*]. 5 Abb., 7 Taf., Capita Zool., IV, 3, 1-47. (1933). **b - 933**

*Xanthidae: Globopilumnus, Glabropilumnus, Planopilumnus*, Verzeichnis der bekannten Arten von *Pilumninae* mit Erörterung der Arten von *Litocheira* (*Goneplacidae*) und ihrer nahen Verwandtschaft mit *Heteropanope*.

**Balss Heinrich** - Ueber einige systematisch interessante indopacifische Dekapoden [*Decapoda Oceani Pacifici Indiani. Quaestio de eorum magno momento pro systematica*]. 9 Abb., 1 Taf., Mitt. Zool. Mus. Berlin, XIX, 84-98. Berlin (1933). **b - 934**

*Stylodactylus discissipes, Exhippolysmata ensirostris, Mimocaris heterocarpoides, Enoplometopus occidentalis, Axius novaezealandiae, Callianassa rosae, Hapalonotus reticulatus, Ralumia dahli, Nautilothelphusa*, subg. in *Parathelphusa*, Typus *P.* (*N.*) *zimmeri, Metaplax longipes*. Verteilung.

**Bogorov B. G.** - Seasonal Changes in Biomass of *Calanus finmarchicus* in the Plymouth Area in 1930 [*Calanus finmarchicus. Quæstio de mutationibus pro anni tempore quoad biomassam in propinquitatibus urbis* Plymouth *a. 1930*]. 8 figs., 5 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 585-612. Plymouth (1934). **b - 935**

In order to study the changes of biomass and size of *Calanus finmarchicus* raw weight, dry weight, and length measurements are determined. In the course of the year both biomass and size vary appreciably, and are characteristic for each season. For the area under investigation three periods of reproduction are specified. The relation between size of organism and hydrological conditions is also considered.

**Boone Lee** - Scientific Results of the World Cruise of the Yacht « Alva », 1931, William K. Vanderbilt, Commanding. *Crustacea : Stomatopoda* and *Brachyura* [*Resultatus scientifici e navigatione per orbem pamphilii « Alva » a. 1931, Duce* William K. Vanderbilt. *Crustacea : Stomatopoda et Brachyura*]. 109 pl., Bull. Vanderbilt Mar. Mus., V, 1-210. Huntington, L. I. ; New York, U. S. A. (1934). **b - 936**

The species described in this paper belong to the following families : Order *Stomatopoda : Squillidae*. Order *Decapoda : Calappidae, Leucosiidae, Raninidae, Dromiidae, Portunidae, Xanthidae, Grapsidae, Gecarcinidae, Ocypodidae*. For each species the A. gives : type, distribution, technical description and references.

**Boschma H.** - *Ligella*, a nomen nudum. Correction to Papers from Dr. Th. Mortensen's Pacific Expedition 1914-16, 55. *Rhizocephala*. [*Ligella, nomen nudum. Correctiones ad opera expeditione in Oceanum Pacificum perdurante perfecta a Doct.* Mortensen *a. 1914-16*]. Vidensk. Meddel. Dansk Naturhist. For., XCIII, 169-170. København (1933). **b - 937**

**Breemen (van) Lies** - Zur Biologie von *Balanus improvisus* (Darwin) [*De biologia speciei « Balanus improvisus »* (Darwin)]. Zool. Anz., CV, 247-257. Leipzig (1934). **b - 938**

Verteilung, Veränderlichkeit der Schale, Wachstum, Fortpflanzung, Lebenslänge.

**Burkenroad Martin David** - Littoral *Penaeidæ* Chiefly from the Bingham Oceanographic Collection, with a Revision of *Penæopsis* and Description of Two New Genera and Eleven New American Species [*Penæidæ litoreæ. Agitur particulatim de Penæidis ad collectionem oceanographicam* Bingham *pertinentibus. Adiunguntur recognitio Penæidarum et descriptio duorum generum novorum undecimque specierum novarum americanarum*]. 40 figs., Bull. Bingham Oceanogr. Coll., IV, 7, 1-109. New Haven, Conn. (1934). **b - 939**

The present observations on littoral and sublittoral Penaeids of the world are a continuation of the preceding discussion of this fauna (Burkenroad, 1934). The present studies are also chiefly centered about American *Penaeinae* and *Eusicyoninae*. Approximately forty-one species of *Penaeinae* and *Eusicyoninae* (including those described in this paper), divisible among eleven genera, are known to occur on the Atlantic and Pacific coasts of America, of which twenty are Pacific, and five may be regarded as common to the two coasts. List of new genera, subgenera, species and subspecies. Systematic account.

**Chappuis P. A.** - Süss- und Brackwasser-Copepoden von Bonaire, Curaçao und Aruba [*Copepoda aquæ dulcis ac salmacidæ in* Bonaire, Curaçao *et* Aruba]. 11 Abb., Zool. Jahrb. Abt. f. Systematik, LXIV. Jena (1933). **b - 940**

Kritische Revision verschiedener Gattungen, Verbesserungen und Bestimmungsschlüssel. *Elaphoidella Sewelli* ist wahrscheinlich synonym mit *Neogaea* subsp. *americana*. Ein Anhang enthält eine Richtigstellung mehrerer, diese Gattung betreffenden Irrtümer in der eben erschienenen Arbeit von Willey über Harpacticiden von Bermuda und der Woods Isle Region.

**Colosi G.** - *Paralophogaster macrops* : nuova specie di misidaceo [*Paralophogaster macrops, species nova*]. 2 fig., Boll. Zool., 2, 43-44. Napoli (1934). **b - 941**

Descrizione di una nuova specie di *Paralophogaster*, *P. macrops* n. sp., facente parte del materiale carcinologico raccolto dal prof. Luigi Sanzo durante la Crociera eseguita nel Mar Rosso dalla R. Nave « Ammiraglio Magnaghi » nel 1923-24.

**Dam (van) Anna J.** - Die *Decapoda* der Siboga-Expedition. VIII. *Galatheidea : Chirostylidæ* [*Decapoda ex expeditione* « Siboga ». *VIII. Galatheidea : Chirostylidæ*]. 50 Abb., Weber Max Siboga-Expeditie, 119 (Monogr. 39 a$^7$). 1-46. (1933). **b - 942**

Allgemeine Erörterung der Morphologie der ost-indischen *Chirostylidae* mit Beschreibung sämtlicher von der Expedition gesammelten Arten. Tafel und Verzeichnis der Verteilung aller bekannten *Chirostylidae*. Bibliographie.

**Dons Carl** - Norges strandfauna II. Decapoder [*Fauna litorea Norvegiæ. II. Decapoda*]. 1 fig., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 11, 38-41. Trondheim (1934). **b - 943**

*Carcinus maenas* Leach., *Cancer pagurus* Lin., *Hyas araneus* Lin., *H. coarctatus* Leach., *Eupagurus bernhardus* Lin., *E. pubescens* Krøyer, *Galathea nexa* Embleton, *Homarus gammarus* (Lin.), *Crangon crangon* (Lin.), *Sclerocrangon boreas* (Phipps), *Athanas nitescens* Leach., *Spirontocaris pusiola* (Krøyer), *Hippolyte varians* Leach., *Pandalus Montagui* Leach. Per tutte le specie è data la distribuzione e per *Carcinus maenas* anche la descrizione.

**Dons Carl** - Norges strandfauna III. Isopoder [*Fauna litorea Norvegiæ. III. Isopoda*]. Kongel. Norsk. Vidensk. Selsk. Forh., VI, 24, 94-96. Trondheim (1934). **b - 944**

*Tanais tomentosus* Krøyer, *Limnoria lignorum* (Rathke), *Idothea baltica* (Pallas), *I. pelagica* Leach, *I. granulosa* Rathke, *I. viridis* (Slabber), *I. neglecta* G. O. Sars, *I. emarginata* (Fabr.), *Jaera albifrons* Leach, *Janira maculosa* Leach, *Janiropsis breviremis* G. O. Sars, *Munna Krøyeri* Goodsir, *Ligia oceanica* (Lin.), *Porcellio scaber* Latr. Distribuzione e sinonimia.

**Dons Carl** - Zoologiske Notizen XXIII. Brachyuren und Anomuren der Møre-Küste [*Notitiæ zoologicæ XXIII. Brachyura et Anomura ex litoribus* Møre]. 1 Abb., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 29, 111-114. Trondheim (1934). **b - 945**

Von den hier angegebenen Formen haben die folgenden neue Nordgrenzen bekommen : *Portunus tuberculatus* Roux, *P. arcuatus* Leach, *Anapagurus laevis* Thompson, *A. chiroacanthus* Lilljeborg.

**Fage Louis** - Sur la présence d'organes lumineux chez les Amphipodes pélagiques [*Organa luminescentia in Amphipodis pelagicis*]. 1 fig., C. R. Acad. Sc., CXCVIII, 18, 1631-1633. Paris (1934). **b - 946**

Caractéristiques d'une espèce nouvelle, capturée par 500 m. de profondeur, au large de la côte atlantique du Maroc. Elle porte de chaque côté du mésosome, au niveau du sixième segment, trois organes lumineux. L'A. propose d'appeler cette nouvelle espèce : *Streetsia nyctiphanes* sp. nov.

**Giltay L.** - *Pycnogonida* from the Coast of British Columbia [*Pycnogonida in litoribus Columbiæ Britannicæ*]. Canad. Field Natural., XLVIII, 49-50. Ottawa (1934). **b - 947**

**Gorbunow G.** - Die Decapoden Crustaceen der Nördlichen Hälfte des Karischen Meeres [*Crustacea decapoda in area septentrionali Maris Karensis*] (Russ. Text, dtsch. Rés.). 1 Taf. a. T., Trans. Arct. Inst., IX, 59-77. Leningrad (1934). **b - 948**

Ergebnisse der Bearbeitung der vom Vf. gemachten Sammlungen von Decapoden-Krebsen, die er teilweise ein 1929 und hauptsächlich in 1930 in der nördlichen Hälfte des Karischen Meeres an Bord des Eisbrechers « Sedow » gemacht hatte. Es sind die folgenden 8 Arten beschrieben : *Spirontocaris spinus* (Sowerby), *S. turgida* (Krøyer), *Hetairus polaris* (Sabine), *Eualus gaimardi* (M. Edwards), *Bythocaris payeri* (Heller), *Pandalus borealis* Leach., *Sclerocrangon ferox* G. O. Sars, *Sabinea septcarinata* (Sabine).

**Grobben Karl** - Die Dekapodenspermien und die Stellung der *Eucyphidea* (Garneelen) im Stammbaum der dekapoden Crustaceen [*Decapoda. Quæstio de spermatis deque positione Eucyphideorum in arbore genealogica Crustaceorum decapodorum*]. 2 Abb., Sitz.-ber. Akad. Wiss., Abt. 1, CXLIII, 8/10, 285-292. Wien (1934. **b - 949**

Unter Hinweisung auf die von Beurlen und Glaessner auf breiter paläontologischer Basis durchgeführten Untersuchungen (Systematik der *Crustacea Decapoda* auf stammesgeschichtlicher Grundlage. Zool. Jahrb. Abt. f. Systematik, Oekol. u. Geogr. d. Tiere, LX, 1930), geht der Vf. hier in seiner Untersuchung von einem Vergleich unter den Spermien bei den verschiedenen dekapodischen Gruppen aus. Es ergibt sich daraus die Möglichkeit für die Stenopiden und Nephropsiden mit Thalassiniden sowie auch für die Eucyphiden auf einen gemeinsamen Ursprung zu schliessen.

**Gurjanova E.** - Zur Amphipodenfauna des Karischen Meeres [*Amphipoda Maris Karensis*]. 4 Abb., Zool. Anz., CIII, 5/6, 119-128. Leipzig (1933). **b - 950**

Schlüssel zu 14 Spezies.

**Hale Herbert M.** - *Tanaidacea* and *Isopoda* collected by the Great Barrier Reef Expedition, 1928-1929 [*Tanaidacea et Isopoda collecta perdurante navigatione nomine* « Great Barrier Reef Expedition » *1928-1929*]. Ann. and Magaz. Natur. Hist., XI, 65, 557-561. London (1933). **b - 951**

Description of *Tanaidae, Gnathiidae, Cymothoidae, Sphaeromidae, Serolidae : Serolis yongei* n. sp., *Oniscoidea.*

**Iwasa Masao** - Description of a New Isopod Crustacean (*Sphæromidæ*) from Hokkaido [*Descriptio novæ speciei ad Crustacea Isopoda pertinentis et ab* Hokkaido *provenientis*]. 2 figs., Proc. Imp. Acad., X, 6, 370-373. Tokyo (1934). **b - 952**

*Tecticeps japonicus*, n. sp.

**Jespersen P.** - The Godthaab Expedition 1928. *Copepoda* [*Expeditio nomine* Godthaab *a. 1928. Copepoda*]. 38 figs., 4 tabl., Medd. om Grønland, LXXIX, 10, 1-166. København (1934). **b - 953**

Systematic account of the species. Families : *Calanidae, Eucalanidae, Paracalanidae, Pseudocalanidae, Aetideidae, Euchaetidae, Phaennidae, Scolecithricidae, Temoridae, Metridiidae, Centropagidae, Lucicutiidae, Heterorhabdidae, Augaptilidae, Arietellidae, Candaciidae, Pontellidae, Acartiidae, Harpacticidae, Oithonidae, Oncaeidae.* Zoogeographical remarks on the Copepod fauna in the waters west of Greenland. Plankton tables. List of literature.

**Klie W.** - Neues zur Crustaceen-Fauna Nordwestdeutschlands [*Crustacea ad Germaniam nordoccidentalem pertinentia. Res novæ de fauna*]. Abh. Naturw. Ver., XXVIII, 271-276. Bremen (1933). **b - 954**

**Klie W.** - Süss- und Brackwasser-Ostracoden von Bonaire, Curaçao und Aruba [*Ostracoda aquæ dulcis et salmacidæ in* Bonaire, Curaçao *et* Aruba]. 26 Abb., Zool. Jahrb. Abt. Syst., LXIV, Jena (1933). **b - 955**

Beschreibung von vier neuen und einigen schon bekannten Arten, von welchen letzten die reine Süsswasserart, *Stenocypris Malcolmsoni* hier in einem nahezu mesohalinen Gewässer gefunden worden ist.

**Lal Hora Sunder** - Bionomics of Two Estuarine Crabs [*Cancri duo novi in Aestuario viventes. Quæstio de bionomia*]. Proc. Zool. Soc. London, Part 4. London (1933). **b - 956**

This report deals with *Varuna literata* Fabr. and *Sesarma tetragonum* Fabr.

**Lameere Aug.** - Précis de Zoologie. Tome III, fasc. III. Les Crustacés [*Summarium zoologicum. Vol. III*um*, fasc. III*us*. Crustacea*]. H. Cauwenberg. Bruxelles (1933). **b - 957**

**Marshall S. M., Nicholls A. G. & Orr A. P.** - On the Biology of *Calanus finmarchicus*. V. Seasonal Distribution, Size, Weight and Chemical Composition in Loch Striven in 1933, and their Relation to the Phytoplankton [*Calanus finmarchicus. Questio de biologia. Distributio pro anni tempore, dimensiones, pondus, compositio chimica apud* Loch Striven *a. 1933, correlationesque cum phytoplancton*]. 9 figs., 2 pl., 5 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 793-827. Plymouth (1934). **b - 958**

Seasonal distribution. Fertilization and breeding. Vertical distribution. Size, weight and temperature. Relation to the phytoplankton. Chemical composition. Notes on parasites.

**Mathias P.** - Sur la biologie de l'*Artemia salina* L. (Crustacé phyllopode) [*De biologia speciei* « *Artemia salina* » L.]. Ann. Sc. Natur., Zool., X$^{e}$ sér., XVII, 433-439. Paris (1934). **b - 959**

**Monod Théodore** - Isopodes marins des campagnes du « de Lanessan » [*Isopoda marina e navigationibus navis* « de Lanessan »]. 45 pl., Note Inst. Océanogr. Indochine, Stat. Marit. Cauda, 23, 1-22. Saïgon (1934). **b - 960**

Espèces appartenant aux familles suivantes : *Idoteidae, Cirolanidae, Corallanidae, Barybrotidae, Cymothoidae, Sphaeromathidae.*

Pour chaque espèce l'A. donne : synomymie, localités et distribution.

**Nouvel L.** - Observations statistiques et biométriques sur *Leander serratus* (Penn.) et *Lysmata seticaudata* Risso [*Observationes statisticæ et biometricæ circa species* « *Leander serratus* » (Penn.) *et* « *Lysmata seticaudata* » Risso]. Bull. Inst. Océanogr., 642, 1-8. Monaco (1934). **b - 961**

Comparaison entre les caractères sexuels de *Lysmata seticaudata*, hermaphrodite et ceux d'une espèce unisexuée, en l'occurrence *Leander serratus*. Observations relatives à la taille, à la fréquence des sexes, à la croissance et au dimorphisme du rostre, des antennes et des antennules.

**Okada Yaichirô** - The Soft Body of *Spirula* [*Corpus molle Spirulæ*] (In Jap.). Venus, IV, 2, 144-145. Kyoto (1933). **b - 962**

The species here described was found in a tunny.

**Orr A. P.** - On the Biology of *Calanus finmarchicus*. Part IV. Seasonal Changes in the Weight and Chemical Composition in Loch Fyne [*Calanus finmarchicus. Quæstio de biologia. Pars IV*a *De variationibus ponderis et compositionis chemicæ pro anni tempore in* Loch Fyne]. 5 figs., 4 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 613-632. Plymouth (1934). **b - 963**

*Calanus finmarchicus* having a great importance as a fish food the A. has undertaken this research in order to ascer-

tain, in conjunction with the observations on size and distribution by Marshall (1933) and Nicholls (1933) recorded in part I and II of this series, what changes in weight and chemical composition took place through the year.

Since it seems possible that differences between male, female and the later copepodite stages might exist, these were separated before analyses were made. No stages younger than the fifth copepodite were dealt with.

**Pesta Otto** - Marine Harpacticiden aus dem Hawaiischen Inselgebiet. I. Beitrag. [*Harpacticidæ marinæ regionis Insularum* Hawaii. *I. Contributio*]. Kolor. Taf., 8 Abb., Zool. Jahrb. Abt. Syst. Oekol. u. Geogr. Tiere, LXIII, 2, 145-162. Jena (1932). **b - 964**

*Tegastes pulcher* n. sp., *T. edmondsoni* n. sp., *T. tenuis* n. sp., *Syngaster pietschmanni* n. sp., *S. gregoryi* n. sp., *S. latus* n. sp.

**Pesta Otto** - Eine neue *Pontella*-Spezies (*Copepoda*) aus dem Südchinesischen Meer [*Nova quædam species generis « Pontella » in Mari Sinensi meridionali*]. 6 Abb., Zool. Anz., CII, 3/4, 92-95. Leipzig (1933). **b - 965**

*Pontella kieferi* in der Sammlung S. K. H. Prinz. Leopold Reise 1932.

**Pesta Otto** - Krebstiere oder *Crustacea*. 1: Ruderfüsser oder *Copepoda* (4. *Monstrilloida*, 5. *Notadelphyoida*, 6. *Caligoida*, 7. *Lernaeoida*). 42 Abb., iv + 68 S., Die Tierwelt Deutschlands und der angrenzenden Meeresteile nach ihren Merkmalen und nach ihrer Lebensweise. Teil 29. Begr. von Dahl Friedrich; Weitergeführt von Maria Dahl und Hans Bischoff. Gustav Fischer. Jena (1934). **b - 966**

Dieser Teil bildet den Abschluss der Bearbeitung der *Copepoda* und behandelt parasitisch lebende Formen, die in vielen Fällen bisher wenig bekannt sind.

**Rammner W.** - Die Cladoceren der « Meteor »-Expedition [*Cladocera per expeditionem* « Meteor » *collecta*]. Wiss. Ergebn. Dtsch. Atlant. « Meteor » - Exped. 1925-1927, XII, Walter de Gruyter & Co. Berlin & Leipzig (1933). **b - 967**

Diese Funde stammen aus 8 Stationen der südafrikanischen und 11 der südamerikanischen Küste. Die marinen Cladoceren sind im wesentlichen an die Küsten gebunden, am wenigsten vielleicht noch *Evadne spinifera*. Die eigenartige Verteilung mariner Cladoceren deutet auf das mögliche Vorhandensein einer Verbindung zwischen dem Gebiete des heutigen Atlantischen Ozeans und dem indomalaiischen Gebiet während der mesozoischen und der frühtertiären Zeit hin.

**Rathbun Mary J.** - A New Crab of the Genus *Cyclodorippe* [*Cyclodorippe genus novum*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep, 1 pl., Smiths. Miscell. Coll. (Publ. 3230), XCI, 3, 1. Washington, D. C. (1934). **b - 968**

Description, type, locality and distribution of the new species: *C. Bouvieri*.

**Sakai T.** - A New Genus and Some New Species of Crabs from Simoda [*Genus novum speciesque quædam novæ Cancrorum e* Simoda]. 1 pl., Sc. Rep. Tokyo Bunr. Daig., Sect. B., I, 12, 137-144. Tokyo (1933). **b - 969**

*Schizophroida* n. gen. and the following four new species: *S. simodaensis*, *S. manazumana*, *Caphyra yo-okadai*, and *Parapinnixa asiatica*.

**Santucci Renato** - Un crostaceo abissale cieco sui fondi a « Scampi » del Mar Ligure [*Crustaceum quoddam abyssale in fundo qui italice dicitur* « a Scampi » *Maris Ligustici*]. 2 fig., Corr. Pesca, VIII, 2, 1-2. Roma (1934). **b - 970**

L'A. esamina una specie di crostaceo nuova per il Golfo di Genova pescata nel rastrellamento dei fondi a Scampi del Mar Ligure, il *Polycheles typhlops* Heller, crostaceo decapodo rettante della famiglia degli *Eryonidae*.

**Schmitt Waldo L.** - Four New Species of Decapod Crustaceans from Porto Rico [*Crustacea decapoda. Species novæ quattuor portoricenses*]. 4 figs., Amer. Mus. Novit., 662, 1-9. New York (1933). **b - 971**

Representative of three new species of Shrimps, one constituting a new genus and a new hermit crab, are described in this paper under the following names: *Synalpheus osburni*, *Periclimenes portoricensis*, *Gnathophylloides* (n. gen.) *mineri*, and *Paguristes tortugae*.

**Sheppard Edith M.** - Isopod *Crustacea*. I. The Family *Serolidae*. [*Crustacea isopoda. I. Familia* « *Serolidae* »]. 22 figs., 1 pl., Discovery Rep. (Govmt. Depend. Falkland Isls.), VII, 253-362. Univ. Press. Cambridge (1933). **b - 972**

Description of the spp. of *Serolidae* found in the S. Atlantic and Antarctic Oceans with key to 37 known spp. of *Serolis*. The following spp. are new: *Serolis kempi*, *S. elliptica*, *S. orbiculata*, *S. nototropis*, *S. platygaster*, *S. aspera*, *S. discoverii*.

**Shoemaker Clarence R.** - Three New Amphipods [*Amphipoda tria nova*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep. 3 figs., Smiths. Miscell. Coll. (Publ. 3246), XCI, 12, 1-6. Washington, D. C. (1934). **b - 973**

Description of three species new to science, designated here as *Cyphocaris Johnsoni*, *Westwoodilla longimana*, and *Rhachotropis lobata*.

**Smith Verna Lucas** - *Ostracoda* in the St. Andrews Region [*Ostracoda in regione* St. Andrews]. Ann. Rep. Biol. Board Canada, 1933, 36. Ottawa (1934). **b - 974**

Results of the continuation of the systematic study of marine and freshwater *Ostracoda* commenced on the Pacific coast in the vicinity of the Atlantic Biological Station. Description of the representatives of 8 marine genera, comprising 13 species from a depth of approximately 15 metres, and of a collection of 6 species of 4 genera taken in the tidal zone.

**Stephensen K.** - *Ceinina japonica* (n. gen., n. sp.) a New Aberrant Species of the Amphipodan Family *Talitridæ* from Japan [*Ceinina japonica species nova aberrans ex Amphipodis Japonicis*]. 4 figs., Trans. Sapporo Natur. Hist. Soc., XIII, 2, 63-68. (1933). **b - 975**

Description and affinities of this species living into the stem of the alga *Undaria pinnatifida*.

**Torelli Beatrice** - Eufausiacei del Mar Rosso [*Euphausiacea Maris Rubri*]. 3 tav., Mem. R. Comit. Talassogr. Ital., No. CCVIII, 1-18. Venezia (1934). **b - 976**

Studio di 15 specie di Eufausiacei raccolte durante la campagna idrografica della R. Nave « Ammiraglio Magnaghi ».

**Ward Melbourne** - New Genera and Species of Marine *Decapoda Brachyura* from the Coasts of New South Wales and Queensland [*Decapoda* *brachyura. Genera et species nova ad litora* New South Wales *et* Queensland *pertinentia*]. 3 pl., Austral. Zool., VII, 5, 377-394. Sydney (1933). **b - 977**

*Lyreidus australiensis* n. sp., *Cryptocnemus planus* n. sp., *Lissomorpha* n. gen., *L. haswelli* n. sp., *Jonas leuteanus* n. sp., *Gonioneptunus whiteleggei* n. sp., *Aeneacancer* n. gen., *A. molleri*, n. sp., *Paraetisus* n. gen., *P. globulus*, *Actaea capricornensis* ; *Calvactaea* n. gen., *C. tumida* n. sp., *Heteropilumnus granulimanus* n. sp., *Prolybia* n. gen., *P. australiensis* n. sp. ; *Rathbunaria* n. gen. (family uncertain), *R. sculptissima* n. sp., *Manella brevimana* n. sp., *Cleistostoma mcneilli* n. sp., *Ilyoplax dentata* n. sp., *Prismatopus* n. gen., *P. albanyensis* n. sp., *Paramithrax parvispinosus* n. sp.

**Wilson C. B.** - Studies on Copepods [*Studia de Copepodis*]. Woods Hole Oceanogr. Instit., Rep. 1933, 38. Woods Hole, Mass. (1934). **b - 978**

Summary of the work of identification and recording of the planktonic Copepods captured during the last cruise of the « Carnegie ». Compilation of list of species for each of the 200 localities in the Atlantic Ocean north of the equator and in the Pacific Ocean from 52° north to 40° south latitude. Study of an exceptional towing taken from « Atlantis » with a closing net at a depth of 2000 meters south of Georges Bank, and of a series of 17 Copepod towings from the vicinity of Bermuda Islands.

**Zimmer C.** - Zoological Results of the Norwegian Scientific Expeditions to East-Greenland. III. Die Cumaceen der norwegischen Expeditionen nach ost-Grönland, 1929, 1930, 1931 und 1932. [*Resultatus zoologici e navigationibus scientiae causa a Norvegis susceptis in Groënlandiam orientalem a. 1929, 30, 31, 32. III. Cumacea*]. 1 Taf., Norg. Svalbard-o. Ish.-unders., Skr. Svalbard o. Ish., 61, 34-40. Oslo (1934). **b - 979**

Beschreibung der erbeuteten Arten mit Verzeichnis der Stationen, wo sie gefunden worden sind.

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**An.** - Contribution à l'étude des Crustacés de Madagascar [*Contributio in Crustacea madagascariensia studenda*]. fig., Faune Col. Franç., V, 8, 500-547. Soc. Ed. Géogr., Paris (1934). **b - 980**

## Tunicata.

**Ärnbäck-Christie-Linde Augusta** - Northern and Arctic Invertebrates in the Collection of the Swedish State Museum (Riksmuseum) XII. *Tunicata. 4. Cionidae, Ascidiidæ, Agnesiidæ, Rhodosomatidæ* [*De Invertebratis nordicis et arcticis in Collectione ad* Riksmuseum *pertinente. XII. Tunicata, 4. Cionidæ, Ascidiidæ, Agnesiidæ, Rhodosomatidæ*]. 22 figs., 6 pl., Kgl. Svenska Vetensk. Akad. Handl., Tredje Ser., XIII, 3, 1-91. Stockholm (1934). **b - 981**

Synopsis of familiae and subfamiliae. Synopsis of genera and species. Geographical and bathymetrical distribution and general observations. Zoogeographical summary. List of works referred to.

**Coifmann Isabella** - Ascidiacei raccolti dalla R. Corvetta « Vettor Pisani » negli anni 1882-1885 [*Ascidiacea collecta a corbita regia* « Vettor Pisani » *a. 1882-1885*]. 4 fig., Ann. Mus. Zool. R. Univ. Napoli, N. S., VI, 9, 1-7. Napoli (1933). **b - 982**

Note descrittive.

**Harant Hervé & Vernières Paulette** - Tuniciers pélagiques provenant des croisières du Prince Albert I.er de Monaco [*Tunicata pelagica ex expeditionibus a Principe Alberto I.* de Monaco *peractis*]. Résult. Camp. Scient. accomplies par Albert I.er Prince Souverain de Monaco, Fasc. LXXXVIII, 1-48. Monaco (1934). **b - 983**

Les AA. ont divisé le travail en trois parties inégales, consacrées respectivement aux Salpes, Doliolums, et Pyrosomes. Pour chacune de ces parties ils ont adopté le même plan. Introduction historique et bibliographique ; classification et tableaux de détermination, étude particulière des espèces. A la fin de la troisième partie spéciale les AA. ont consacré à l'ensemble des Tuniciers pélagiques étudiés : un résumé des résultats enregistrés ; une liste par station des espèces recueillies ; un index bibliographique ; une table alphabétique des matières.

**Huus J.** - Die Tierwelt der Nord- und Ostsee. Lief. 25. Teil 12. $a_3$. *Ascidiacea* [*De fauna Maris Nordici et Maris Baltici. Fasc. 25. Pars 12 $a_3$ : Ascidiacea*]. 49-116. Akad. Verlagsg. m. b. H., Leipzig (1933). **b - 984**

Beschreibung des äusseren Baus und der inneren Anatomie. Konservierungsmethode. Systematische Verhältnisse mit Diagnosen und Schlüsseln. Physiologisches. Entwicklung. Larven. Parasiten.

**Ihle J. E. & Ihle-Landen-Berg M. E.** - Anatomische Untersuchungen über Salpen. III. Der Nucleus. IV. Allgemeines über den Darmkanal der Salpen [*Investigationes anatomicæ in Salpas. III. Nucleus. IV. Generalia de canale intestinali Salparum*]. 19 Abb., 1 Taf., Zool. Anz., CIV, 1/2, 41-56; 1 Abb., 7/8, 194-200. Leipzig (1933). **b - 985**

III. Beschreibung der Anatomie des Nucleus von den folgenden Arten : *Salpa fusiformis*, *Ihlea punctata*, *Iasis zonaria*, *Ritteriella hexagona*, *R. amboinensis*, *Thalia democratica*, und *Cyclosalpa pinnata*.

IV. Vergleichende Anatomie in Bezug auf den Darmkanal von : *Ihlea*, *Salpa*, *Iasis*, *Thalia*, *Thetys*, *Pegea*, und *Traustedtia*.

**Kükenthal Willy (Gegr. von)** - Handbuch der Zoologie : eine Naturgeschichte der Stämme des Tierreiches. Band 5, Hälfte 2 : *Tunicata*. Lief. 3 [*Manuale zoologicum : Historia naturalis animalium. Voluminis V.*$^{i}$ *II*$^{a}$ *dimidia pars : Tunicata. Fasc. 3.*$^{us}$]. Hrsg. von Thilo Krumbach, 193-272. Walter de Gruyter und Co. Berlin u. Leipzig (1933). **b - 986**

**Oka Asajiro** - Ueber das Vorkommen von *Styela partita* in Japan [*Styela partita in Japonia*]. 2 Abb., Proc. Imp. Acad., X, 3, 184-186. Tokyo (1934). **b - 987**

Die hier beschriebene Art, *Styela partita*, die bis jetzt nur an der Küste von Yokohama gefunden worden ist, bietet ein deutliches Exempel der diskontinuierlichen Verbreitung der Ascidien dar.

**Oka Asajiro** - Ueber *Molstyela*, eine merkwürdige neue Gattung von einfachen Ascidien [*Molstyela genus novum notandum Ascidiarum simplicium*]. 3 Abb., Proc. Imp. Acad., X, 5, 292-294. Tokyo (1934). **b - 988**

Bericht über den Fund einer merkwürdigen Styelide, die in der inneren Organisation eine echte *Styela* ist, äusserlich aber die Merkmale einer typischen *Molgula* aufweist. *Molstyela* nov. gen., *Molstyela izuana* nov. sp.

**Oka Asajiro** - Ueber *Clavelina coerulea* n. sp., die erste von Japan bekannt gewordene *Clavelina* [*Clavelina cærulea n. sp. quæ considerari po-*

*test species primum cognita in Japonia*]. Proc. Imp. Acad., X, 6, 365-366. Tokyo (1934). **b - 989**

Die alte Gattung *Clavelina*, die sonst in ihrer typischen Form nur vom Mittelmeer und Nordwesteuropa bekannt ist, ist zum erstenmal auch in Japan vorgefunden worden, und zwar in einer Form, die der *C. lepadiformis* sehr nahe steht. *C. coerulea* n. sp.

**Oka Asajiro** - Eine zweite *Gamaster*-Art (*Ascidiae Simplices*) [*Species altera ad genus « Gamaster » pertinens*]. 2 Abb., Proc. Imp. Acad., X, 9. 594-596. Tokyo (1934). **b - 990**

*Gamaster japonicus* nov. sp. Vergleich mit *G. dakarensis*, der einzigen bis jetzt bekannten Art der Gattung *Gamaster*; Diagnose und Fundort.

**Oka Asajiro** - Ueber *Cynthia iburi* n. sp., eine neue *Cynthia*-Art mit quergerichteten Keimenspalten [*De Cynthia iburi n. sp., nova quaedam Cynthia cum branchiotomibus transversis*]. 2 Abb., Proc. Imp. Acad., X, 10, 695-697. Tokyo (1934). **b - 991**

Beschreibung, Fundort, verwandte Form.

**Pruvot-Fol Mme A.** - Sur le nom de genre *Fritillaria* H. Fol [*Genus « Fritillaria » H. Fol. Quœstio de nomine*]. Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 2, 184-185. Paris (1934). **b - 992**

L'A. propose : *Fritillaria* (Quoy, vernaculaire et M. S.) H. Fol 1872 (de novo). Quant au type il restera : *Fritillaria pellucida* (Busch) (= *Eurycercus pellucidus* Busch, *Fritillaria furcata* Vogt ; Gegenbaur ; Fol et auct.).

**Salfi Mario** - Osservazioni sulla evoluzione delle colonie e sullo sviluppo degli abbozzi blastogenetici dei Didemnidi [*Didemnidæ. Observationes circa evolutionem coloniarum progressionemque delineationum blastogeneticarum*]. Arch. Zool. Ital., XVIII, 1/2, 203-245. Napoli (1933). **b - 993**

Genesi delle colonie di *Leptoclinum gelatinosum* (M.-Edw.). Aspetto del processo blastogenetico, interpretazione di ascidiozoi di colonie di *Tridídemnum cereum* (Giard.) e *Leptoclinum gelatinosum* (M.-Edw.) in blastogenesi e considerazioni generali. Origine e sviluppo degli abbozzi blastogenetici. Elementi ontogenetici nella costituzione degli abbozzi blastogenetici.

**Thompson Harold** - The *Tunicata* of the Scottish Area, their Classification, Distribution and Ecology. Part IV. Sedentary *Tunicata* (concluded). Order *Krikobranchia* [*Tunicata ad regionem scotam pertinentia. De eorum dispositione in classes, distributione et oecologia. Pars IVa : Tunicata sessilia (Finis). Ordo « Krikobranchia »*]. 17 charts, 13 pl., Fish., Scotland, Scient. Invest., 1934, 1, 1-44. Edinburgh (1934). **b - 994**

The forms dealt with in this paper belong to the following families : *Polycitoridae*, *Didemnidae*, *Synoicidae*. For each species a detailed description and the distribution are given. Some notes are furnished on eggs and larvae. In a postscript additional records of species referred to in Part I are given.

## Pisces et Cyclostomata.

**Altnöder K.** - Die Aussetzung von Bachforellen (*Salmo fario* L.) in die Ostsee. Vorwort von Prof. Dr. H. Henking [*Salmo fario L. Quœstio de distributione per Mare Balticum. Prof. Doct. H. Henking præfatus est*]. 1 Abb., 2 Kart. 4 Tab., Ber. Dtsch. Wiss. Komm. Meeresf. N. F., VII, 1, 2-23. Leipzig (1934). **b - 995**

Einleitende Bemerkungen über im Ostseegebiet gemachte Verpflanzungen und Markierungen. Wiederfänge an markierten Bachforellen. Wanderungen und Laichen der markierten Bachforellen. Längenwachstum. Gewichtszunahme. Nahrung. Vorschläge für weitere Untersuchungen.

**Antipa Gr.** - Les Esturgeons de la Mer Noire. Leur biologie et les mesures nécessaires pour leur protection [*Acipenseridæ ponticæ. De biologia et tutela*]. Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 61-75. Paris (1934). **b - 996**

Court aperçu général sur l'état de nos connaissances au sujet de la systématique et la biologie des Esturgeons. A. Les espèces fluviales : *Acipenser ruthenus* L., *A. glaber* Marsigli ; B. Les espèces marines : *A. sturio* L., *A. stellatus* Pall., *A. guldenstaedtii* Brandt, *Huso huso*. Les mesures à prendre pour la protection des Esturgeons dans la Mer Noire, dont la production est en continuelle décroissance. Rôle de la Commission Internationale dans l'organisation de la protection ci-dessus.

**Beebe William** - Three New Deep-sea Fish seen from the Bathysphere [*Pisces abyssales tres novi bathysphæra conspecti*]. 3 figs., Bull. New York Zool. Soc., XXXVII, 6, 190-193. New York (1934). **b - 997**

*Bathyembrys istiophasma* gen. et spec. nov., *Bathyceratias trilychnus* gen. et spec. nov. and *Bathysidus pentagrammus* gen. et spec. nov. Descriptions and drawings. (See also Contr. New York Zool. Soc. Dpt. Trop. Res., N. 461, 1934).

**Beebe William** - Deep-sea Fishes of the Bermuda Oceanographic Expeditions. Family *Idiacanthidæ* [*Pisces in magnis profunditatibus viventes, ex expeditionibus oceanographicis ad insulas Bermudas. Idiacanthidæ*]. 81 figs., Zoologica. Scient. Contr. New York Zool. Soc., XVI, 4, 149-241. New York (1934). **b - 998**

Summary of important points. General account : classification, distribution, development. *Idiacanthus fasciola* : Bermuda specimens ; specimens previously recorded ; adult specific characters ; development ; ecology ; study materials ; synonymy and references.

**Beebe William & Tee-Van John** - A New Genus and Species of Scaleless Blenny *Somersia furcata*, from Bermuda [*Somersia furcata, nov. gen. nov. sp. ex insulis Bermudis*]. 1 fig., Amer. Mus. Novit., 730, 1-3. New York (1934). **b - 999**

Diagnosis of the new genus. Description of the new species : type, field characters, measurements and counts.

**Berg L. S.** - *Acipenser güldenstädtii persicus*, a Sturgeon from the South Caspian Sea [*Acipenser güldenstädtii in Mari Caspio meridionali*]. Ann. & Magaz. Natur. Hist., 10th ser., XIII, 317-318. London (1934). **b - 1000**

**Bertin Léon** - Mise au point de la systématique des Poissons abyssaux appartenant aux genres *Saccopharynx* et *Eurypharynx* [*Recognitio systematica piscium abyssalium ad genera « Saccopharynx » et « Eurypharynx » pertinentium*]. Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 1, 26-31. Paris (1934). **b - 1001**

Les *Saccopharynx* et les *Eurypharynx* ont été réunis par Gill et Ryder (1883) dans un sous-ordre de Poissons apodes, celui des Lyomères. Principaux caractères et clé dichotomique de ce sous-ordre. Diagnose des deux familles des Saccopharyngidés et des Eurypharyngidés qui se composent toutes les deux d'un seul genre, dont on donne la synonymie. Exposé succinct de leur distribution géographique.

**Bertin Léon** - Une nouvelle espèce de Poissons abyssaux : *Saccopharynx Schmidti* [*Saccopharynx Schmidti, species nova Piscium abyssalium*]. C. R. Acad. Sc., CXCVIII, 18, 1633-1635. Paris (1934). **b - 1002**

Diagnose. Caractères différentiels. Caractères métriques. Lieu et date de capture.

**Bigelow Henry B. & Schroeder W. C.** - *Chordata.* 12 d *Marsipobranchii* (Lampreys). 12 e *Elasmobranchii* (Sharks and Rays). 12 f *Holocephali* (Chimaeroids). 35 figs., Canad. Atlantic Fauna (Contr. No. 61 of Woods Hole Oceanogr. Instit.), 12, 1-38. Toronto (1934). **b - 1003**

Popular name, external features, size and geographical range are given for each species.

**Bohn Georges** - Leçons de Zoologie et Biologie générale. 6 : Vertébrés inférieurs (Poissons, Batraciens, Reptiles) [*Zoologia et Biologia generalis. 6. Vertebrata inferiora* (*Pisces, Batrachia, Reptilia*)]. 96 pp., (Actualités Scient. et Ind. 183), Hermann et Cie. Paris (1934). **b - 1004**

**Bonde (von) C.** - Note on the Swahili Names of Certain Fishes of Zanzibar Island [*Nota de denominatione quæ tribuitur piscibus insulæ* Zanzibar *ex idiomate* Swahili]. South African Journ. Sc., XXX, October, 351-354. Johannesburg (1933). **b - 1005**

The A. gives some examples of the great confusion existing with regard to local names of Fishes, and deals with a few of the more common Swahili names describing edible fish met with in the markets. In a list are given the Swahili names of seventy-three Fishes, together with the scientific and common names.

**Borcea I.** - Révision systématique et distribution géographique des Gobiidés de la Mer Noire et particulièrement des eaux roumaines [*Gobiidæ Ponti Euxini et aquarum Rumenarum. Recognitio systematica et distributio geografica*]. 91 fig., 8 pl., Ann. Scient. Univ. Jassy, XIX, 1/4, 1-231. Jassy (1934). **b - 1006**

L'A. s'est limité à décrire aussi clairement que possible les différentes espèces qu'on rencontre dans les eaux roumaines tant maritimes, que saumâtres ou fluviatiles, insistant particulièrement sur les caractères vraiment spécifiques. Pour toutes les espèces il a étudié minutieusement la disposition des pores muqueux et des séries de papilles cyathiformes et il a poursuivi l'habitat et la distribution géographique. Il a considéré aussi chaque espèce, au point de vue de son origine et au point de vue économique.

**Borcea I.** - Données pour servir à la systématique et à la biologie des Mugilidés. Formes de la Mer Noire (Littoral Roumain) [*Dati pro systematica et biologia Mugilidarum. Formæ Ponticæ* (*Litus Rumenum*)]. 18 fig., Ann. Scient. Univ. Jassy, XIX, 1/4, 247-286. Jassy (1934). **b - 1007**

*Mugil cephalus, M.* (*Liza*) *ramada, M.* (*L.*) *auratus, M.* (*L.*) *saliens.* Tout en contrôlant pour ces espèces les caractères déjà invoqués par divers savants comme ayant une réelle valeur pour la systématique, l'A. a été entraîné à porter spécialement l'attention sur l'aspect, l'arrangement et sur des particularités des écailles dans la région céphalique et sur le reste du corps, sur les particularités du système des canaux muqueux de la peau et des écailles, ainsi que sur certaines particularités anatomiques.

**Borcea I.** - Note préliminaire sur les Clupéides de la région littorale roumaine de la Mer Noire et des eaux intérieures [*Clupeidæ ad regionem litoream Rumenam Ponti Euxini et ad aquas internas pertinentes. Nota prior*]. 1 fig., Ann. Scient. Univ. Jassy, XIX, 1/4, 382-390. Jassy (1934). **b - 1008**

Discussion au sujet des différentes espèces de Clupéides, décrites par plusieurs auteurs pour la Mer Noire. Description détaillée de l'espèce : *Caspialosa maeotica* Grimm.

**Borodin N. A.** - Scientific Results of the Yacht « Alva » Mediterranean Cruise, 1933, in Command of William K. Vanderbilt. Fishes [*Resultatus scientifici e navigatione per Mare Mediterraneum a pamphilio* « Alva » *peracta a. 1933, duce* William K. Vanderbilt. *Pisces*]. 2 pl., Bull. Vanderbilt Mar. Mus., I, 4, 103-123. Cambridge, Mass. (1934). **b - 1009**

Annotated systematic list of species. List of references. As new are described : *Pristipomoides Vanderbilti, Cynoscion fusiformis, Trachinotus madeirensis, Trachinoides moroccanus.*

**Breder C. M. Jr.** - Atlantic *Synentognathi* [*Synentognathi Oceani Atlantici*]. Papers Tortugas Labor. & Carnegie Instit. Washington, XXVIII. Washington, D. C. (134). **b - 1010**

Discussion on the behaviour, swimming attitudes, habitat and development of certain *Belonidae* and their relatives. Notes on their feeding habits and enemies.

**Brunelli G.** - Rapporto sulla biologia dello Storione [*Acipenser. Nota de biologia*]. Rapp. Pr.-Verb., Comm. Expl. Scient. Méditerranée, VIII, 77-79. Paris (1934). **b - 1011**

Graduale diminuzione dello storione che si verifica in diverse Nazioni. Revisione delle specie esistenti in ciascuna Nazione del bacino del Mediterraneo. Alcuni accenni circa il programma di studî sulla biologia dello storione e sulle condizioni fisico-chimiche dell'ambiente in cui si verifica la riproduzione di questo pesce allo scopo di elaborare una regolamentazione della sua pesca.

**Bückmann A.** - Die Schollenbevölkerung der Deutschen Bucht im Jahre 1933 [*Populatio solearum in* « Deutsche Bucht » *a. 1933*]. 4 Tab., 1 Anhang., Ber. Dtsch. Wiss. Komm. Meeresf. N. F. VII, 1, 24-37. Leipzig (1934). **b - 1012**

Prüfung der Brauchbarkeit der Methode die Häufigkeit und die Dichte der Bevölkerung zu beurteilen. Die Verteilung der Schollen. Arealdichte der verschiedenen Altersgruppen und ihre Abnahme. Mittlere Länge, Länge über 23,0 cm. der Altersgruppen 1929-1933. Prozentuale Alterszusammensetzung der marktfähigen Schollen 1933. Vergleich mit den Verhältnissen in der südwestlichen und zentralen Nordsee. Aussichten für kommende Jahre und wichtige Aufgaben.

**Bückmann A.** - Untersuchungen über die Naturgeschichte der Seezunge, die Seezungenbevölkerung und den Seezungenfang in der Nordsee [*Inquisitiones in historiam naturalem speciei* « *Solea vulgaris* » Quensel, *in populationem et modum captandi in Mari Nordico*]. 14 Abb., 24 Tab., Ber. Dtsch. Wiss. Komm. Meeresf. N. F., VII, 2, 1-66. Leipzig (1934). **b - 1013**

Einleitende Bemerkungen über frühere Untersuchungen und Methode der Altersbestimmungen. Die Naturgeschichte der Seezunge. Die Zusammensetzung der Bevölkerung. Der Seezungenfang. Rationelle Ausnutzung des Bestandes. Vorschläge für weitere Untersuchungen.

**Bückmann A.** - Ueber die Jungschollenbevölkerung der deutschen Wattenküste der Nordsee [*Species* « *Pleuronectes platessa* » *ad litus maris Nordici pertinens in area vadorum. Quæstio de juve-*

*nibus*]. 3 Abb., Ber. Dtsch. Wiss. Komm. Meeresf. N. F., VII, 3, 319-327. Leipzig (1934). **b - 1014**

1. Die allgemeine Verbreitung der Schollen des ersten Lebensjahres im Untersuchungsgebiet; 2. Der Einfluss der Tiden auf die Verteilung der Schollen und die Rückwirkung der Tidenwanderungen auf die Grösse der Fänge. 3. Die Unregelmässigkeit der Verteilung der Jungschollen und die Unzuverlässigkeit der festgestellten durchschnittlichen Fangdichte. 4. Die jahreszeitlichen Wanderungen der Schollen. 5. Das Wachstum der Schollen.

**Bückmann A.** - Die Hauptlinien der internationalen Schollenuntersuchungen der letzten Jahre [*Ratio præcipua inquisitionum internationalium in Pleuronectidas recentioribus annis*]. 4 Diagr., 2 Taf., Journ. Cons. Expl. Mer, IX, 3, 309-338. Copenhague (1934). **b - 1015**

A. Die allgemeinen Ziele der Untersuchungen. B. Die Abgrenzung der Bestände. C. Die Fluktuationen. D. Die Wachstumsgeschwindigkeit. E. Der Einfluss der Bestandsschwankungen auf den Ertrag der Fischerei. F. Die Wirkung der Fischerei auf den Bestand. G. Massnahmen zur rationellen Ausnutzung der Schollenbestände. Verzeichnis der im Text angeführten Schriften.

**Chabanaud Paul** - Variabilité de *Lirus ovalis* C. V. (*Pisces Stromateidæ*) [*Lirus ovalis* C. V. *Quæstio de variabilitate*]. Bull. Mus. Nat. Hist. Natur., V, 4, 285-289. Paris (1933). **b - 1016**

Formules et proportions d'un remarquable spécimen, le plus grand qui soit connu de cette espèce provenant de l'Atlantique. Tableau contenant, rangés par ordre décroissant du total des éléments constitutifs de la nageoire dorsale, l'ensemble de tous les individus décrits précédemment, ou mentionnés par Tate Regan. Observations au sujet des affinités de ces exemplaires et considérations sur la variation de leur taille.

**Chabanaud Paul** - Les grandes subdivisions de l'ordre des Poissons hétérosomes sont-elles justiciables d'un criterium discriminatif? [*Partitiones magnae piscium « Heterosomata » discriminationem admittunt?*]. C. R. Acad. Sc., CXCVII, 19, 1064-1065. Paris (1933). **b - 1017**

L'A. passe en revue les caractères discriminatifs sur lesquels est basée la classification des *Heterosomata*, dont Regan est l'auteur. Il considère ensuite d'autres caractères (la position de l'oeil migrateur chez l'adulte et le mode d'insertion de la partie épicranienne de la notoptère) et leur importance comme bases d'un critérium discriminatif.

**Chabanaud Paul** - Poissons hétérosomes recueillis par M. le Professeur A. Gruvel et par MM. R.-Ph. Dollfus et J. Liouville sur la côte atlantique du Maroc [*Pisces heterosomata collecti a Prof.* A. Gruvel, R.-Ph. Dollfus *et* J. Liouville *præter atlanticum mauretanicum*]. 2 pl., 49 fig., Mém. Soc. Sc. Natur. Maroc, XXXV, 1-111. (1933). **b - 1018**

Description systématique et morphologique des Poissons hétérosomes recueillis sur la côte atlantique du Maroc. Comparaison entre la faune des *Heterosomata* de la côte atlantique du Maroc et celle de la Méditerranée. L'espèce *Kyleia thori* est nouvelle.

**Chabanaud Paul** - Description d'un nouveau soléidé, originaire de Zanzibar [*Soleidæ. Nova quædam species zanzibarica*]. Bull. Soc. Zool. France, LVIII, 388-396. Paris (1934). **b - 1019**

*Barbourichthys zanzibaricus*, n. gen. n. sp.: formule des nageoires; écailles; dimensions proportionnelles; face zénithale; face nadirale; coloration en alcool. Discussion sur sa position systématique.

**Chabanaud Paul** - A propos de *Sardinella eba* C. V., *maderensis* Lowe et *aurita* C. V.. Bull. Soc. Zool. France, LIX, 129-132. Paris (1934). **b - 1020**

Considérations de caractère systématique.

**Chapman Wilbert M. & DeLacy Allan C.** - Ichtyological Notes. Notes on the Fishes of the State of Washington [*Notæ ichthyologicæ. De Piscibus ad Statum* Washington *pertinentibus*]. Copeia, 2, 102-103. New York (1933). **b - 1021**

*Chaenobryttus gulosus, Helioperca incisor, Prionistius macellus, Synchirus gilli, Leptoclinus maculatus, Ptilichthys goodei, Furcimanus diapterus.*

**Chapman Wilbert M. & DeLacy Allan C.** - New Species of *Careproctus* from Alaska [*Species novæ ad genus « Careproctus » pertinentes ex* Alaska]. 1 table, Journ. Pan-Pacific Res. Instit., IX, 2, 2-5. Honolulu, Hawaii (1934). **b - 1022**

*Careproctus Scottae* new species: holotype, paratypes, description, relationships with the other species.

**Clarke W. J.** - Saury Pike (*Scombresox saurus*) at Scarborough [*Scombresox saurus ex urbe* Scarborough]. Naturalist, 100. London (1933). **b - 1023**

**D'Ancona Umberto** - Sur quelques espèces pontiques et méditerranéennes du genre *Syngnathus* [*Nonnullæ species Ponti Euxini et Maris Mediterranei ad genus « Syngnathus » pertinentes*]. Ann. Scient. Univ. Jassy, XIX, 1/4, 236-238. Jassy (1934). **b - 1024**

Parmi les exemplaires pontiques examinés, l'A. a reconnu quatre espèces: *S. variegatus*, *S. typhle*, *S. bucculentus*, *S. Schmidtii*. A ces espèces il faut ajouter, selon Rathke, *S. tenuirostris*. Des quatres espèces indiquées, *S. variegatus*, *S. bucculentus*, et *S. Schmidtii* sont particulières à la Mer Noire; *S. typhle* est commun à la Mer Noire et à la Méditerranée.

**D'Ancona Umberto** - Le specie mediterranee del genere *Syngnathus* [*Species mediterraneæ ad genus « Syngnathus » pertinentes*]. 4 fig., 3 tav., Mem. R. Comit. Talassogr. Ital., No. CCX, 3-82. Venezia (1934). **b - 1025**

Specie e unità sistematiche minori. Caratteri distintivi delle specie del gen. *Syngnathus*. Cenni storici sulla sistematica dei Singnatidi mediterranei. Specie mediterranee del gen. *Syngnathus*: *Syngnathus typhle* L., *S. acus* L., *S. variegatus* Pallas, *S. taenionotus* Canestr., *S. abaster* Risso, *S. Agassizii*, Kaup, Canestr. (nec Michah.), *S. bucculentus* Rathke, *S. phlegon* Risso, *S. Schmidti* Popov. Notizie generali sui *Syngnathus* mediterranei.

**Daniel Frank** - The Elasmobranch Fishes [*Elasmobranchii*]. xi + 322 pp., Third Edition. Univ. Calif. Press. Berkeley, Calif. (1934). **b - 1026**

New informations on the transformation of the endostyle into the thyroid gland, on the lymphatic system, on the homologies of the carotid artery between Elasmobranchs and higher Vertebrates. New studies on the ampulla of Lorenzini.

**De Buen Fernando** - Presencia de anillas de goma abrazadas al cuerpo de agujas *Rhamphistoma belone* (L.) [*Rhamphistoma belone* (L.) *Anuli gummati circum corpus*]. Bol. Soc. Españ. Hist. Natur., XXXIV, 7, 395-396. Madrid (1934). **b - 1027**

Unas conjeturas para interpretar hecho tan curioso.

**De Buen Fernando** - *Discocephali* de España (Peces) [*Discocephali ad Hispaniam pertinentes*]. 2 figs., Bol. Soc. Españ. Hist. Natur., XXXIV, 7, 397-412. Madrid (1934). **b - 1028**

La distribución de los *Echeneidae* en España se simplifica extraordinariamente en el momento actual; se han dado a conoscer sólo dos especies: *Remora remora* y *Echenesis naucrates*. Bibliografía.

**De Buen Fernando** - Notas sobre los *Gaidropsaridae* (Peces). Un nuevo género (*Onogadus* nov. gen.) y una nueva especie (*Gaidropsarus barbatus* nov. sp.) [*Notæ de piscibus ad familiam « Gaidropsaridæ » pertinentibus. Onogadus novum genus et Gaidropsarus barbatus nova species*]. 1 fig., Bol. Soc. Españ. Hist. Natur., XXXIV, 10, 499-504. Madrid (1934). **b - 1029**

Discussión sobre la sistemática de los géneros de la familia *Gaidropsaridae*. Creación del nuevo género *Onogadus*. Clave provisional de las especies con tres barbillas de la familia *Gaidropsaridae*. Descripción de : *Gaidropsarus barbatus* De Buen nov. sp.

**De Buen Fernando** - Estudios raciales basados en el numero de vértebras en la sardina, *Sardinia pilchardus* (Walb.) [*Sardinia pilchardus* Walb. *Stirpis studium cuius fundamenta ponuntur in numero vertebrarum*]. 1 fig., Journ. Cons. Expl. Mer, IX, 3, 339-345. Copenhague (1934). **b - 1030**

En resumen, parecen existir, basando el estudio en el número de vertebras, las siguientes razas de Sardinas (*Sardinia pilchardus* Walb.) : Mediterráneo : Adriatica ? ; Mediterránea septentrional ; Mediterránea meridional.

Atlántico : De Azores y Madera ; Atlántica meridional ; Cantábrica ; De la Mancha.

**Delsman H. C. & Hardenberg J. D. F.** - Indische Zeevisschen 4. Djapoeh (*Dussumieria*) en Makassaarsche vischjes (*Spratelloides*) [*Pisces marini Indici. 4. Dussumieria et Spratelloides*]. Trop. Natuur, XXII, 10-13. Batavia (1933). **b - 1031**

Contains notes on the taxonomy, life-history, distribution and economic use of the *Dussumieria*- and *Spratelloides*-species, which occur in the Indo-Australian Archipelago.

**Delsman H. C. & Hardenberg J. D. F.** - De Indische Zeevisschen en Zeevisscherij [*De piscibus marinis Indicis deque piscatu*]. 282 fig., Edited Visser and Co. Welterveden, 388 pp. Batavia (1934). **b - 1032**

Contains description and life history of the common genera and species of Fishes occurring in the Indo-Australian Archipelago, together with notes on their economic value and their distribution. Furthermore there are chapters on the biology, the fisheries, the anatomy and systematics of the Fishes in general and a chapter on the productivity of the Indo-Australian seas.

**Dons Carl** - Notes on Fishes. I [*De Piscibus. Nota Ia*]. 1 fig., Kongel. Norsk. Vidensk. Selsk. Forh., VI, 20, 78-81. Trondheim (1934). **b - 1033**

1. The Moonfish in the Trondheim Region. 2. *Mugil auratus* Risso (Norw. Gullmulte). 3. *Mugil chelo* Cuv. Some notes on their occurrence on the Norwegian coasts.

**Ege Vilh.** - On Some New Fishes of the Families *Sudidæ* and *Stomiatidæ*. Preliminary Note [*De quibusdam piscibus novis ad familias « Sudidæ » et « Stomiatidæ » pertinentibus. Nota prior*]. Vidensk. Meddel. Dansk Naturhist. For., XCIV, 223-236. København (1933). **b - 1034**

The forms described belong to the genera : *Paralepis*, *Macroparalepsis* and *Stomias*.

**Firth F. E.** - *Anthias Nicholsi*, a New Fish taken off Virginia in the Deep-water Trawl Fishery [*Anthias Nicholsi, piscis novus captus longe a litoribus insulæ Virginiæ inter piscationem in aquis profundis*]. 1 fig., Copeia, IV, 158-160. New York (1933). **b - 1035**

**Fowler Henry W.** - Description of a New Long-finned Tuna (*Semathunnus guildi*) from Tahiti [*Semathunnus guildi, n. gen. n. sp. ex insulis* Tahiti]. Proc. Acad. Natur. Sc. Philadelphia, LXXXV, 1933, 163-164. Philadelphia (1934). **b - 1036**

This specimen represents not only a new species but also a new genus. Diagnosis, affinities and relatives.

**Fowler Henry W.** - Descriptions of New Fishes obtained 1907 to 1910, chiefly in the Philippine Islands and Adjacent Seas [*Novorum piscium in Insulis Philippinis maribusque contiguis repertorum a 1907 ad 1910 descriptio*]. 117 figs., Proc. Acad. Natur. Sc. Philadelphia, LXXXV, 1933, 233-367. Philadelphia (1934). **b - 1037**

The collection described here chiefly refers to the more primitive bathypelagic or deep sea forms, especially in the group *Isospondyli* and *Iniomi*, and comprises two new families, 46 new genera or subgenera, 117 new species besides a number of new subfamilies.

**Fraser-Brunner A.** - Revision of the Chaetodont Fishes of the Subfamily *Pomacanthinæ* [*Chætodontidæ ad subfamiliam « Pomacanthinæ » pertinentes. De eorum recognitione*]. Proc. Zool. Soc. London, 543-599. London (1933). **b - 1038**

**Gandolfi-Hornyold A.** - La civelle de la Loire du 11 Mars 1933 [*Anguilla juvenis fluminis Ligeris die 11 mensis martii 1933*]. Bull. Soc. Centr. Aquicult. et Pêche, XLI, 22-27. Paris (1934). **b - 1039**

**Gandolfi-Hornyold A.** - Observations sur la taille et le sexe de deux cents petites Anguilles argentées des Valli di Comacchio [*Observationes circa dimensiones et sexum 200 anguillarum argentearum in Vallibus* Comacchio *nomine*]. Bull. Soc. Centr. Aquicult. et Pêche, XLI, 43-50. Paris (1934). **b - 1040**

**Gandolfi-Hornyold A.** - La civelle de Sète de janvier et février 1934 [*Juvenis anguilla ex* Sète *mensibus januario et februario 1934*]. Bull. Soc. Centr. Aquicult. et Pêche, XLI, 71-76. Paris (1934). **b - 1041**

**Gandolfi-Hornyold A.** - Observations sur la taille et le sexe de la petite anguille argentée des Valli de Comacchio [*Observationes circa dimensiones et sexum parvae anguillæ argentatæ in Vallibus* Comacchio *nomine*]. 1 table, Bull. Soc. Océanogr. France, XIV, 80, 1398-1401. Paris (1934). **b - 1042**

Importance de la pêche et de l'industrie de l'anguille des Valli (étangs d'eau salée) de Comacchio, en Italie. Leur développement dans les autres pays. Les 4 stades de la vie de l'anguille. Différence dans le développement sexuel de l'anguille jaune et de l'anguille argentée. Résumé des résultats des recherches de l'A. sur l'anguille des Valli de Comacchio faites dans le but principal de déterminer aussi exactement que possible les longueurs maximum et minimum pour le mâle et la longueur minimum pour la femelle argentée.

**Gilson A.** - Annual Concentration of Spent Herring along the French and Belgian Coasts in 1933-1934 [*De annua concentratione aringorum qui productus germinales deposuerunt, praeter litora gallica et belgica, a. 1933-1934*]. 1 Diagr., Rapp. Pr.-

Verb. Cons. Expl. Mer, 3ème partie, Appendices 1933-1934, LXXXIX, 101-103. Copenhague (1934). **b - 1043**

A study of this concentration appearing regularly every winter in the coastal region between Cape Gris-Nez and the Scheldt has been made continually since the year 1930. Information as to the quantity (scarcity or abundance) of different stages observed and the factors concerned with this phenomenon. A conjectural sketch of the life-history of the herring in the most southernly parts of the North Sea is also given.

**Giltay Louis** - Poissons [*Pisces*]. 29 fig., Mém. Mus. R. Hist. Natur. Belgique, h. sér., Résult. Scient. du Voyage aux Indes Orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique, V, 3, 1-129. Bruxelles (1933). **b - 1044**

Au cours de ce voyage ont été recueillis près de 850 spécimens de Poissons comprenant 205 espèces différentes, dont 6 espèces sont nouvelles : *Dasybatis uylenburgi*, *Leptocephalus manokwariensis*, *Diaphus astridae*, *Synchiropus Leopoldi*, *Eviota*, *lachdeberei*, *E. nigriventris*. Liste des espèces classées par région. Liste systématique des espèces recueillies. Remarques générales sur la faune ichthyologique indo-australienne.

**Graham Michael** - The North Sea Cod [*Gadus morrhua Maris Nordici*]. 3 figs., Journ. Cons. Expl. Mer, IX, 2, 159-171. Copenhague (1934). **b - 1045**

I. The safety of the stock of the cod in the North Sea : results of an attempt to find a sensitive indicator of the effect of fishing on the stock, which can be examined frequently on hand of the usual biological research, investigations of age, migrations, maturity, and the rest. This indicator is the average survival of fish of a given year. Information as to the basis for interpretation of the indications given by the method of observations described. II. Prediction : Illustration of a method of prediction based upon the relation between the landings of the smallest marketable cod and the landings of large cod three and four years later. III. Miscellanea : Some information on the growth-rates of the North Sea cod; factors influencing this question ; the problem of the cod migrations ; the importance of the scale rings ; research needed concerned with cod liver oil.

**Hansen M. Paul** - Synopsis of Investigations into Fluctuations in the Stock of Cod at Greenland during the Years 1930-1933 [*Synopsis investigationum circa fluctuationes speciei « Gadus callarias » in Groënlandia a. 1930-1933*]. 7 figs., 1 chart, 4 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer (Scient. Rep. North-Western Area Comm. 1930-1932), LXXXVI, 1-11. Copenhague (1934). **b - 1046**

Age-determinations, exclusively from the otoliths, for various localities grouped in districts, concerning the year-classes 1912 and 1917, 1922, 1924, 1926 and younger year classes. Racial investigations. Investigations into spawning cod in the Godthaabsfjord.

**Hardenberg J. D. F.** - Notes on Some Genera of the *Engraulidæ* [*De quibusdam generibus ad familiam « Engraulidæ » pertinentibus*]. Natuurk. Tijdschr. v. Nederl. Ind., XCIII, 230-256. s'-Gravenhage (1933). **b - 1047**

It is pointed out that separation of the genera *Stolophorus*, *Engraulis* and *Anchoviella* (pro parte) cannot be maintained. These three genera should be united into one genus, viz. *Stolephorus*, this being the oldest name.

In a second part it is pointed out that the generic names *Thrissocles*, *Scutengraulis* and *Thrissina* cannot be maintained separately. The genera mentioned above should be united into one genus, *Thrissa*.

**Hardenberg J. D. F.** - New *Stolephorus*-species of the Indo-Australian Seas [*Species novæ ad genus « Stolephorus » marium indo-australiensium pertinentes*]. Natuurk. Tijdschr. v. Nederl. Ind., XCIII, 258-263. s'-Gravenhage (1933). **b - 1048**

Contains the description of 4 new species with 6 subspecies.

**Hardenberg J. D. F.** - Some New or Rare Fishes of the Indo-Australian Archipelago II. [*Piscium species novæ et raræ ad Archipelagus Indo-australiense pertinentes. II*]. Treubia, XIV, 215-226. Buitenzorg (1933). **b - 1049**

Contains descriptions of 12 species, belonging to 11 genera.

**Hardenberg J. D. F.** - Some New or Rare Fishes of the Indo-Australian Archipelago. III [*Piscium species quædam novæ et raræ ad Archipelagus Indo-australiense pertinentes*]. Treubia, XIV, 287-297. Buitenzorg (1934). **b - 1050**

Contains the description of 13 species, belonging to 9 genera.

**Hardenberg J. D. F.** - Additional Notes to my Paper « The Fishfauna of the Rokan-Mouth » [*Notæ additiciæ operi « De fauna ichthyologica in accessu fluminis* Rokan]. Treubia, XIV, 299-312. Buitenzorg (1934). **b - 1051**

Contains notes on the altered circumstances since 1929 (described in the above-named paper in Treubia 1931). A complete list of the fish-species occurring in the mouth of the Rokan River is given.

**Hardenberg J. D. F.** - Some Remarks on the Genus *Stolephorus* Lacépède in the Indo-Australian Archipelago [*Considerationes quædam de genere « Stolephorus »* Lacépède *in Archipelago Indo-australiensi*]. Treubia, XIV, 313-375. Buitenzorg (1934). **b - 1052**

Contains descriptions of all species known from the Indo-Australian Archipelago (9 in total). Detailed statistical differences within each species are given.

**Hart J. L.** - Determination of Subspecies of Anchovy Present in British Columbia Waters [*Determinatio subspeciei Engraulis in aquis Columbiæ Britannicæ viventis*]. Ann. Rep. Biol. Board Canada, 1933, 86. Ottawa (1934). **b - 1053**

Account of a preliminary taxonomic examination of *Engraulis mordax* and an investigation of its life-history which confirm the identity of the British Columbia anchovy with the ocean subspecies *E. m. mordax*.

**Heldt H.** - Le Thon rouge et sa pêche [*Thynnus ruber. Quæstio de piscatura*]. 48 fig., nombr. tabl., Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 187-255. Paris (1934). **b - 1054**

Introduction. Place dans la classification et caractères spécifiques. Distribution géographique, bathymétrique et chronologique. Migrations. Ponte ; Développement ; Croissance. Nourriture. Pêche. Industrie et statistiques. Conclusions. Index bibliographique (pp. 248-255).

**Herre Albert W.** - Twelve New Philippine Fishes [*Duodecim Pisces novi in insulis Philippinis*]. Copeia, 1, 17-25. New York (1933). **b - 1055**

*Solenostomus phantasticus*, *Dampieria atrofasciatus*, *Pseudochromus colei*, *P. simillimus*, *Holacanthus chapmani*, *Hemipteronotus nigromaculatus*, *Scarus*, *ophtalmistius*, *S. visayanus*, *Mars caeruleo-maculatus*, *Gladiogobius*, relationships not stated, but considered «a true goby » erected for *G. ensifer*, *Callionymus zaspilus*, and *Opisthognathus suluensis*.

**Hodgson William C.** - The Natural History of the Herring of the Southern North Sea [*Historia naturalis aringi in parte septentrionali Maris Nordici*]. 120 pp., The Buckland Lectures for 1933, Edward Arnold and Co. London (1934). **b - 1056**

**Holly Maximilian** - *Cyclostomata.* 57 Abb., xiv + 62 S., Das Tierreich, Lief. 59. Walter de Gruyter und Co. Berlin u. Leipzig (1933). **b - 1057**

Morphologischer Charakter, Diagnose der Ordnungen, Familien, Gattungen und Untergattungen mit Schlüsseln dieser Gruppen und Arten. Für jede Form folgt eine Beschreibung und in den meisten Fällen auch eine Abbildung mit Angabe der Verteilung. Synonymen.

**Hubbs Carl L. & Schultz Leonard P.** - Description of Two New American Species Referable to the Rockfish Genus *Sebastodes,* with Notes on Related Species [*Descriptio duarum specierum novarum Americanarum ad genus « Sebastodes » pertinentium. Adiunguntur notæ circa species affines*]. 1 table, 2 pl., Univ. Wash. Publ. in Biol., II, 2, 15-44. Seattle, Wash. (1933). **b - 1058**

Revision of the species referred to the subgenera *Sebastosomus, Auctospina* and *Pteropodus.* The new names employed in this paper are : *Sebastodes columbianus* n. sp. *S. littoris* n. sp.

**Huntsman A. G.** - Effect of Wind on Herring [*Ventus eiusque effectus in aringum*]. Ann. Rep. Biol. Board Canada, 1933, 21. Ottawa (1934). **b - 1059**

Results of an analysis of the daily catches of weirs on the East and West sides of Inner Passamaquoddy Bay in relation to the direction and strength of wind, reveal that during the part of the year when the water is warm or being warmed the herring on the whole keep sufficiently near the surface to be carried in the wind drift and that they are carried passively and do not stem against such a weak, general movement of the water.

**Huntsman A. G.** - Relation of Herring to Fresh Water [*Correlatio inter aringum et aquam dulcem*]. Ann. Rep. Biol. Board Canada, 1933, 22. Ottawa (1934). **b - 1060**

Some results of a study showing that the relation of herring to freshwater is quite complicated. Movements of the herring in relation to the movements of the surface water as a result of hydrodynamic forces set up by the light fresh water.

**Huntsman A. G. & McNairn N. A.** - Fatness in the Herring [*Aringi crassitudo*]. Ann. Rep. Biol. Board Canada, 1933, 23. Ottawa (1934). **b - 1061**

Results of the examination of herring from different districts on account of its fatness, the criterion used being the relation of the weight to the length. Relationship between the fatness of the herring and the abundance of planktonic food. Gradation of fatness with size.

**Joubin** (Publiée sous la direction de M. le Prof.) - Faune ichthyologique de l'Atlantique Nord [*Fauna ichthyologica Oceani Atlantici septentrionalis*]. 24 pl., Cons. Int. Expl. Mer, 14. Copenhague (1933). **b - 1062**

*Squalus blainvillei, Myliobatis aquila, Epinephelus gigas, E. aeneus, E. goreensis, E. taeniops, Pristipoma jubelini, P. perrotteti, P. suillum ; Box salpa, Corvina nigrita, Galeoides decadactylus, Blennius ocellaris, Chirolophis ascanii, Charax puntazzo, Crenilabrus roissali, Tetragonurus Cuvieri, Yarrella Blackfordi, Margrethia obtusirostra, Vinciguerria Sanzoi, Valenciennellus tripunctatulus, Bonapartia pedaliota, Regalecus glesne, Ephippion (Tetrodon) guttifer.*

**Joubin** (Publiée sous la direction de M. le Prof.) - Faune ichthyologique de l'Atlantique Nord [*Fauna ichthyologica Oceani Atlantici septentrionalis*]. 24 pl., Cons. Int. Expl. Mer, 15. Copenhague (1933). **b - 1063**

*Trygon pastinaca, Blennius trigloides, B. gattorugine, Sarda sarda, Germo alalunga, Auxis thazard, Katsuwonus pelamys, Euthynnus alletteratus, Orcyhopsis unicolor, Diplophos taenia, Manducus maderensis, Ichthyococcus ovatus, Maurolicus Mülleri, Vinciguerria poweriae, V. attenuata, Plyipnus laternatus, Argyropelecus Olfersi, A. hemigymnus, A. aculeatus, A. affinis, A. gigas, A. sladeni, Sternoptyx diaphana, Zaphotias photocephalus.*

**Kamohara Toshiji** - On a New Fish, *Zenion japonicum,* from Japan [*Zenion japonicum, species nova in Japonia*]. 1 fig., Proc. Imp. Acad., X, 9, 597-599. Tokyo (1934). **b - 1064**

Head, radial formula, body form, color, alliance with other species, measurements, locality.

**Katayama Masao** - On the External and Internal Characters of the Bony Fishes of the Genus *Vegetichthys,* with a Description of One New Species [*De peculiaritatibus externis et internis piscium ad genus « Vegetichthys » pertinentium. Nova quædam species describitur*]. 2 figs., Proc. Imp. Acad., X, 7, 435-438. Tokyo (1934). **b - 1065**

The genus *Vegetichthys* appears to be valid on the basis of the account made by the A. The new species *V. caeruleus* is described.

**Le Gall Jean** - Le Tassergal ou Blue Fish. (*Pomatomus saltatrix* Lacépède = *Temnodon saltator* Linné). Résumé des connaissances acquises sur la biologie et l'utilisation de ce poisson [*Pomatomus saltatrix* Lacépède = *Temnodon saltator* Linné. *Compendium rerum biologicarum. Agitur etiam de utilitate percipienda*]. 38 fig., tabl., Rev. Trav. Off. Pêch. Marit., VII, 1, 27-85. Paris (1934). **b - 1066**

Introduction I. Etymologie. Synonymie. II. Caractères spécifiques. III. Distribution géographique, bathymétrique. IV. Migrations. V. Nourriture. Ponte. Développement. Croissance. VI. Pêche et industrie. VII. Conclusions. VIII. Index bibliographique. Table des figures.

**Legendre R.** - La faune pélagique de l'Atlantique au large du Golfe de Gascogne [*De fauna pelagica Oceani Atlantici longe a litoribus Sinus Vasconici*]. 53 fig., Ann. Inst. Océanogr., XIV, 6, 247-418. Paris (1934). **b - 1067**

Le Germon (*Germo alalunga* Gmelin) : systématique, bibliographie, habitat, mode de pêche, observations biologiques.

Poissons trouvés dans des estomacs de Germon appartenant aux familles suivantes : *Engraulidae, Maurolicidae, Sternoptychidae, Anotopteridae, Congridae, Chlorophthalmidae, Paralepidae-Sudidae, Myctophidae, Belonidae, Scomberesocidae, Gaidrosparidae, Merlucidae, Bothidae, Syngnathidae, Tetragonuridae, Carangidae, Sparidae, Girellidae, Mullidae, Caproidae, Scorpaenidae, Triglidae, Blenniidae, Brotulidae.* Pour chaque espèce l'A. donne : systématique, habitat, taille et développement.

**Lissner H.** - On Races of Herrings [*Aringus. Quæstio de stirpibus*]. 2 tabl., Journ. Cons. Expl. Mer, IX, 3, 346-364. Copenhague (1934). **b - 1068**

In this paper the methods of racial investigations on Herrings developed by Friedrich Heincke and by his successor have been examined. A new hypothesis is given in which are pointed out the necessity of considering the influence of external factors, the so-called « plasticity » or « lability », of starting the investigations from material of uniform maturity and of considering the geographical areas at a basis for subdivision of races.

**Lozano Luis** - Algunos peces pelágicos o de profundidad procedentes del Mediterráneo occidental [*De quibusdam Piscibus seu pelagicis seu viventibus in maximis profunditatibus in Mari Me-*

*diterraneo occidentali*]. Bol. Soc. Españ. Hist. Natur., XXXIV, 1, 85-91. Madrid (1934). **b - 1069**

*Chlorophthalmus Agassizi, Myctophum* (*Lampanyctus*) *crocodilus, Nettastoma melanura, Notacanthus Bonapartii, Syngnathus phlegon, Hoplosthetus mediterraneus, Capros aper, Glossamia pandionis, Callionymus maculatus, C. phaeton, Benthocometes muraenolepis, Macrurus aequalis, Coelorhynchus coelorhynchus.*

**Markun M. J.** - Die Aralsee-Barbe, ihre Systematik und Biologie [*Barbus ad Mare* Aral *pertinens. De systematica et biologia*] (Russ. Text, Dtsch. Rés.). 3 Abb., Tab., 1 Karte, Rep. Aral-Sea Div. Scient. Stat. Fish., II, 1-47. Aralsk. (1933). **b - 1070**

Morphometrische Analyse von den im Aralsee hauptsächlich vertretenen *Barbus brachycephalus*. Hauptfanggebiet: der Süden des Sees. Fischwanderungen: Frühjahr hauptsächlich Fische von 3 kg, Sommer von 4, 5-6, 4 kg. Analyse der « Panachan » Form, welche scheinbar abgelaichte Exemplare darstellt. [Behning].

**McKenzie R. A.** - Observations on Cod Held in Tanks [*Merluccii in piscina servati. Observationes*] Ann. Rep. Biol. Board Canada, 1933, 28-29. Ottawa (1934). **b - 1071**

Observations in respect to colouration, feeding habits, effects of high temperatures, performed on cod held in cement tanks with running water, both at St. Andrews and at Eastern Passage, Halifax, over various periods of time and during the different seasons.

**McNairn N. A.** - Herring Races of the Bay of Fundy [*De stirpibus aringorum in Baja* Fundy]. Ann. Rep. Biol. Board Canada, 1932, 29. Ottawa (1933). **b - 1072**

Information on the herring of the Bay of Fundy, which for the most part spawn in summer or fall, while spring spawning herring occur in small numbers at the head of the bay, and at the head of St. Mary Bay. Racial characteristics and slight differences between the two races.

**Mohr Erna W.** (Zusammengestellt von) - Bibliographie der Alters- und Wachstums-Bestimmung bei Fischen. III. Nachträge und Fortsetzung [*Aetatis et accretionis piscium bibliographia. III. Supplementa continuationesque*]. Journ. Cons. Expl. Mer, IX, 3, 377-391. Copenhague (1934). **b - 1073**

I Titel. II. Allgemeines. III. Behandelte Arten. IV. Vulgär-Namen.

**Mori Tamezo** - On *Acipenseridæ* from Korea [*Acipenseridæ ex Koreana regione*] (In Jap.). 1 fig., Chosen Hakub. Z., 16, 6-10. (1933). **b - 1074**

Notes, key for determination and distribution of 3 Korean species of *Acipenser.*

**Myers George S.** - Three New Deep-water Fishes from the West Indies [*Pisces tres novi viventes in maximis profunditatibus ad Indias occid. pertinentes*]. Reports on the Collections Obtained by the First Johnson - Smithsonian Deep-sea Expedition to the Puerto Rican Deep., 2 figs., 1 pl., Smiths. Miscell. Coll. (Publ. 3238), XCI, 9, 1-12. Washington, D. C. (1934). **b - 1075**

*Margrethia disjuncta* (*Gonostomatidae*); *Johnsonina eriomma* (*Triacanthidae*); *Peristedion Bartschi* (*Peristediidae*).

**Nekrassoff Olga** - Contribution à la connaissance des Triglidés du Littoral Roumain de la Mer Noire [*Triglidæ ex litoribus Rumenis Ponti Euxini. Contributio in faunam cognoscendam*]. 3 fig., Ann. Scient. Univ. Jassy, XIX, 1/4, 308-313. Jassy (1934). **b - 1076**

Tous les exemplaires étudiés appartiennent à l'espèce *Trigla hirundo* L. syn. *T. corax* C. Bonap., dont l'A. donne une diagnose détaillée.

**Norman J. R.** - Notes on Flatfishes (*Heterosomata*). V. Four New Species from the Atlantic Coast of America [*Heterosomata. V. Species novæ quattuor ex litoribus Atlanticis Americanis*]. Ann. & Magaz. Natur. Hist., XII, 68, 201-204. London (1933). **b - 1077**

*Syacium longleyi, Etropus longimanus, E. intermedius,* and *Monolene antillarum.*

**Norman J. R.** - A Systematic Monograph of the Flatfishes (*Heterosomata*) Vol. I. *Psettodidæ, Bothidæ, Pleuronectidæ* [*Heterosomata. Vol. I$^{um}$: Psettodidæ, Bothidae, Pleuronectidæ. Monographia systhematica*]. viii + 459 pp., British Mus. (Natur. Hist.). London (1934). **b - 1078**

The principal part of this work includes the systematics of the *Heterosomata* for which there are given a description and an illustration of every species with the characteristics of families, subfamilies and genera, the classification of which rather differs from the one commonly used. The other parts deal with the fossil *Heterosomata*, development of the asymmetry, anatomy, especially respiration organs, mimicry and albinismus and genetics. (See Abstract in: Journ. Cons. Expl. Mer, IX, 3, 426).

**Parr Albert Eide** - Two New Records of Deep Sea Fishes from New England with Description of a New Genus and Species [*De inventis duobus novis piscibus abyssalibus in regione* New England. *Adiungitur descriptio novi cuiusdam generis novaeque speciei*]. 2 figs., Copeia, IV, 176-179. New York (1933). **b - 1079**

Key to 3 recognized genera including *Stomioides*, near *Stomias*, type *Stomioides Nicholsi* from the stomach of *Xiphias gladius.*

**Parr Albert Eide** - Report on Experimental Use of a Triangular Trawl for Bathypelagic Collecting with an Account of the Fishes Obtained and a Revision of the Family *Cetomimidæ* [*Relatio de experientiis, retis cuiusdam triangularis auxilio perfectis ad collectiones bathypelagicas parandas. Adiungitur relatio de piscibus captis et recognitio familiae « Cetomimidae »*]. 21 figs., Bull. Bingham Oceanogr. Coll., IV, 6, 1-59. New Haven, Conn. (1934). **b - 1080**

General discussion of the method with a diagrammatic sketch of the relative dimensions and appearance of trawl and ship. Results of the trawling undertaken at Atlantis Station 1478, in 25° 39' Northern Latitude and 77° 18' Western Latitude to about 1050-1100 meters vertical depth on February 20, 1933. This single haul yielded a total of 47 different species of deepsea fish represented by 491 specimens, of which there were 118 specimens of species other than those of the genus *Cyclothone.*

Several new species are described and a new sub-family and genus.

**Parr Albert Eide** - Studies of *Myctophinæ* in the Museum of Comparative Zoölogy. I. Revision of Type Specimens. II. *Myctophinæ* Collected by C. O' D. Iselin in the North Atlantic in 1928 [*Myctophinae ad* « Museum of Comparative Zoölogy » *pertinentes. I. Recognitio speciminum. II. Myctophinae collectae a* C. O' D. Iselin *in Oceano*

*Atlantico septentrionali a. 1928*]. 7 figs., Bull. Mus. Comp. Zoöl., LXXVII, 2, 41-65. Cambridge, Mass. (1934). **b - 1081**

Among the species described *Lampanyctus Iselini* is new.

**Petit G.** - Un *Fierasfer* nouveau de Madagascar [*Fierasfer sp. nov. ex* Madagascar]. 1 fig., Bull. Mus. Nat. Hist. Natur., $2^e$ sér., VI, 4, 393-397. Paris (1934). **b - 1082**

Description détaillée de *Fierasfer Mourlani* sp. nov., découvert dans une Astérie du genre *Culcita*. Remarques sur sa systématique, sur sa répartition géographique, sur la grande variabilité de son habitat et de son genre de vie.

**Petrow W. W.** - Zur Systematik des eurasischen Stints (*Osmerus eperlanus* L.) [*De systematica speciei eurasiaticæ « Osmerus eperlanus »* L.]. Zool. Anz., CVII, 177-188. Leipzig (1934). **b - 1083**

**Pietschmann Viktor** - Drei neue Fische aus den hawaiischen Küstengewässern [*Pisces novi tres ad aquas litoreas insularum Hawaii pertinentes*]. Anz. Akad. Wiss., Math.-Naturw. Kl., LXXI, 9, 99-100. Wien (1934). **b - 1084**

*Scorpaena Fowleri* n. sp., *Dascyllus Edmondsoni* n. sp., *Asterropterix eumeces* n. sp. Diagnosen.

**Popov A. M.** - To the Knowledge of the Ichthyofauna of the Siberian Sea [*De ichthyofaùna Maris Siberiani*] (In Engl., Russ. Rés.). 1 pl., Arctica, 1, 157-168. Leningrad (1933). **b - 1085**

Preliminary results of the ichthyological material collected during three expeditions to the vast area from Cape Cheljuskin to Bering Strait, sent out by the Soviet Government. Preliminary list and diagnosis of Fishes collected by the Hydrographical Expeditions in 1913-1914 and by the Expedition on the ice-breaker « Lütke » in 1929, of which the following species is new to science : *Liparis Laptevi* n. sp. Some general observations on the ichthyofauna of the Siberian Sea on hand of material collected by the « Vega »-Expedition 1878, the Russian Polar Expedition 1900-1903, the expedition of the steamer « Lütke » 1929, the Hydrographical Expedition in the Pacific during the voyage of the vessels « Tajmyr » and « Vaigatch ».

**Poulsen Erik M.** - Biology of the Dab in Danish Waters [*Pleuronectes flesus in aquis Danicis. De biologia*]. 7 figs., 9 tabl., Rep. Danish Biol. Stat., XXXVIII, 9-30. Copenhagen (1933). **b - 1086**

The yield of the Danish dab fishery 1909-1931 exposed in graphs and tables as to the different regions shows a remarkable increase. The occurrence of the dab in the Danish waters. Racial characters, spawning time, growth ; age and length of the dab upon attaining sexual maturity. The occurrence of dab in the Limfjord.

**Raitt D. S.** - A Preliminary Account of the Sandeels of Scottish Waters [*Ammodytes ad aquas Scotas pertinentes. Nota prior*]. 4 diagr., 4 charts, Journ. Cons. Expl. Mer, IX, 3, 365-372. Copenhague (1934). **b - 1087**

Notes on the four species of *Ammodytes*, *A. tobianus*, *cicerellus*, *lanceolatus*, *marinus*. Discussion on their geographical distribution, characteristics, breeding times, importance in the economics of the sea.

**Rauther M.** - Kl. III. *Euichthyes*. 156 + 124 Abb., Bronn's Kl. u. Ordn. des Tierreichs (*Vertebrata*). Echte Fische, VI, (Abt. 1, Buch 2), Lief. 3; 329-488 ; Lief. 4, 489-628. Leipzig (1933). **b - 1088**

Diese Serie behandelt die vergleichende Anatomie und die Morphologie der Klasse *Euichthyes*. Der erste Teil enthält eine Uebersicht aller veröffentlichten Angaben über die Anatomie und die Cytologie des Integumentes, im zweiten, dritten und vierten Teil werden das Skelett und sein Bau, die Form des Körpers, die Bewegung und die Muskulatur besprochen.

**Reid Earl D.** - Two New Congrid Eels and a New Flatfish [*Congridæ. Species duæ novæ. Pleuronectidæ. Species nova*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep. 2 figs., 1 pl., Smiths. Miscell. Coll. (Publ. 3251), XCI, 15, 1-11. Washington, D. C. (1934). **b - 1089**

Generic characteristics of the congrid Eels. Key to genera of *Congridae* discussed in this paper. Description of the following new species : *Ariosoma selenops*, *Congrina thysanochila*, *Poecilopsetta albomarginata*.

**Remotti Ettore** - Il problema sistematico del gen. *Mullus* L. e suoi aspetti endocrini [*De systematica generis « Mullus » L. eiusque aspectibus endocrinis*]. 9 fig., Boll. Mus. Labor. Zool. e Anat. Comp. R. Univ. Genova, XIII, 69, 3-20. Genova (1934). **b - 1090**

L'A. osserva alcuni casi anomali di *Mullus*, nei quali, in concomitanza con una condizione iperplasica della tiroide, su caratteri di *surmuletus* si ha sovrapposizione di elementi propri del *barbatus*. Sulla base di tale reperto, che dimostra la stretta relazione tra le due specie, riprende l'esame di queste, in rapporto al loro equilibrio endocrino, e pone in rilievo, parallelamente alla variabilità dell'abito esterno, un correlativo polimorfismo della tiroide ; le diversità glandolari, dal *barbatus* al *surmuletus*, facendosi particolarmente manifeste durante il periodo del differenziamento morfologico della regione cefalica. L'A. è indotto a ritenere le forme già ascritte alle due discusse specie come varianti endocrine di un'entità sistematica unica, la differente distribuzione ecologica potendo essere il fattore della variazione, o viceversa la sua conseguenza, quale portato, in tal caso, delle diversità d'esigenze ambientali create dalle differenze d'equilibrio ormonico. Tale forma potrebbe essere indicata allora come *Mullus mediterraneus*.

**Ricker W. E.** - Factors in Cultus Lake Affecting the Development and Survival of Young Sockeye Salmon [*Oncorhynchus nerka in regione* Cultus Lake. *Quæstio de factoribus qui in accretionem influunt et in vitam superstitem*]. Ann. Rep. Biol. Board Canada, 1933, 95-97. Ottawa (1934). **b - 1091**

Account of an investigation carried out to determine what environmental factors may exist in Cultus lake affecting young sockeye salmon, and how and to what extent they influence the survival rate. The investigation has followed three main lines : (a) general limnological studies of the lake ; (b) study of the food of fingerling sockeye, and (c) study of the food of predaceous Fishes. The methods used in each case are standard among limnologists. Bi-monthly temperature series, water samples and plankton hauls were taken at a representative central station. A gang of gill nets from 5/8 in. to 5 in. in stretched mesh, set regularly, afforded samples of predaceous Fishes and from their stomach were taken most of sockeye used in the food studies.

**Roule Louis** - Les Poissons et le monde vivant des eaux. Etudes ichthyologiques et philosophiques. Tome 7.$^{ème}$ : L'Abîme des grands fonds marins [*De Piscibus omnibusque animatis in aqua viventibus. Studia ichthyologica et philosophica. Vol. VII.*$^{um}$]. 83 dessins, 16 pl. en trichr., 326 pp., Librairie Delagrave, Rue Soufflot, 15. Paris (1934). **b - 1092**

I) Evocations du milieu abyssal ; sites et biotopes ; souvenirs de croisières. Le domaine abyssal. La descente à l'abîme des grands fonds sous-marins. La mer gréco-latine. Les attributs de la vie abyssale. Les Poissons lumineux ; II) Descriptions et comparaisons : Poissons préabyssaux. *Stomias* et Alépocéphale. Les Salmoniformes abyssaux et le fretin des grands fonds. Les Requins de profondeur. Les survivants des vieux mondes marins. Les Poissons les plus profonds et le biotope bathyabyssal. Ceratias et Ceratiformes. Du *Simenchelys* au *Nemichthys*. Les goules : *Saccopharynx* et *Eurypharynx*. L'Opisthoprocte et les monstres normalisés ; III) Commentaires : Les cercles de l'abîme marin. Le circuit alimentaire des mers. Les secrets de l'Océan et l'énigme des Grands Serpents de mer. Conte philosophique : La relativité abyssale du temps d'après une légende japonaise.

**Roule Louis** - La biologie de l'Esturgeon en France (Méditerranée) [*Acipenser sturio in Gallia (Mari Mediterraneo). De biologia*]. Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 85-87. Paris (1934). **b - 1093**

Spécification, oecologie, migration, ponte, réglementation de la pêche de l'Esturgeon, *Acipenser sturio* L. du versant Méditerranéen de la France.

**Roxas Hilario A.** - A Review of Philippine *Mugilidæ* [*Mugilidæ. Recognitio specierum ad insulas Philippinas pertinentium*]. 2 pl., Philipp. Journ. Sc., LIV, 3, 393-431. Manila (1934). **b - 1094**

Discussion on the various genera proposed under the family *Mugilidae*. Check list of the species of Mullets so far reported from Philippine seas, lakes and rivers. Key to the Philippine species of *Mugil*. One new species, *Myxus philippinus*, is described.

**Russell F. S.** - Tunny Investigations Made in the North Sea on Col. E. T. Peel's Yacht. « St. George », Summer, 1933, Part I. Biometric Data [*Thunnus thynnus. Inquisitiones peractæ per Mare Nordicum pamphilii* « St. George » *auxilio, æstate 1933. Pars Iª. Dati biometrici*]. 8 figs., 4 tabl., Journ. Mar. Biol. Assoc., XIX, 2, 503-522. Plymouth (1934). **b - 1095**

Details are given of the types of hooks lost in tunny in the North Sea in the summer 1933. Data are given on the measurements made on thirty-two large migrating fish caught in the North Sea in August and September, 1933. It was found that there was a tendency for fish with short second dorsal fins to have short first dorsal, anal, and caudal fins, and for those with long second dorsals to have these other three fins long.

**Russell F. S.** - The Tunny, *Thunnus thynnus*, Linnaeus. An Account of its Distribution and Biology [*Thunnus thynnus* L. *De eius distributione et biologia*]. 2 figs., Sc. Progress, XXVIII, 112, 634-649. London (1934). **b - 1096**

Brief outline of the distribution of the tunny that indicates at once that it is a migratory fish. The methods and localities of the commercial fisheries for tunny. Detailed discussion on the theories concerning its life history.

**Schultz Leonard P. & Chapman Wilbert M.** - A New Osmerid Fish, *Spirinchus dilatus*, from Puget Sound [*Spirinchus dilatus, sp. nov. ex* Puget Sound]. 2 pl., 2 tabl., Ann. & Magaz. Natur. Hist., ser. 10, XIII, 67-78. London (1934). **b - 1097**

Holotype. Comparison with *S. thaleichthys*, *S. starksi* and *S. lanceolatus*. Description and size.

**Schultz Leonard P. & Welander Arthur W.** - The Cottoid Genus *Hemilepidotus* of the North Pacific [*Genus Hemilepidotus Oceani Pacifici septentrionalis*]. 2 tabl., Journ. Pan-Pacific Res. Instit., IX, 2, 5-6. Honolulu, Hawaii (1934). **b - 1098**

The results of a biometrical study confirm the view of Gilbert and Burke that *H. jordani* is specifically distinct from *H. hemilepidotus* and contradict the statement of Schmidt that the two forms are only subspecifically distinct.

**Smith Hugh M.** - Contributions to the Ichthyology of Siam. XV. The Sea Catfish *Trachysurus leiotetocephalus* [*Contributiones ad faunam ichthyologicam cognoscendam regionis Siamensis. XV. Trachysurus leiotetocephalus marinus*]. Journ. Siam Soc., Natur. Hist., Suppl., IX, 3, 299-300. Bangkok (1934). **b - 1099**

The commercial importance of this species, its size, its occurrence.

**Smith Hugh M.** - Contributions to the Ichthyology of Siam. XVIII. The Blenniid Fishes of Siam, with Descriptions of New Species [*Contributiones ad faunam ichthyologicam cognoscendam regionis Siamensis. XVIII. Blenniidæ*]. 2 pl., Journ. Siam Soc., Natur. Hist., Suppl., IX, 3, 315-323. Bangkok (1934). **b - 1100**

With one exception all of the known Siamese Blenniids belong to the family of *Blenniidae* and are of very small size, inhabiting the shallow waters of rocky shores of the mainland and islands, especially tide pools. Of the species described here the following are new : *Petroscirtes masyae* n. sp., *Enchelyurus analis* n. sp., *Salarias siamensis* n. sp., *Cirripectes indrambaryae* n. sp. There is also given a key even including genera of Blennies occurring in India, the East Indies, the Philippines and other oriental regions which may be found in Siamese waters.

**Smith Hugh M.** - Contributions to the Ichthyology of Siam. XIX. New and Rare Fish Records from Siam [*Contributiones ad faunam ichthyologicam cognoscendam in regione Siamensi. XIX. Species novæ et raræ*]. Journ. Siam Soc., Natur. Hist., Suppl., IX, 3, 323-325. Bangkok (1934). **b - 1101**

*Rasbora heteromorpha, Ophicephalus marulius, Mactotrema caligans, Ophiocara porocephala, Zonogobius semidoliatus.*

**Scott E. O. G.** - Observations on Some Tasmanian Fishes, with Descriptions of New Species [*Observationes circa pisces quosdam Tasmaniæ et descriptio novarum specierum*]. 2 figs., 3 pl., Papers & Proc. R. Soc. Tasmania for 1933, 31-52. Tasmania (1934). **b - 1102**

The present paper falls into three sections : 1) Some general observations ; 2) Additions to the Tasmanian list : *Exonautes cribrosus, Solegnathus robustus* ; 3) Description of a new species of *Galaxias* (*G. cleaveri*) and a new species of *Agrostichthys* (*A. benhami*).

**Taranetz A.** - New Data on the Ichthyofauna of the Bering Sea [*De ichthyofauna Maris* Bering. *Notæ additiciæ*] (In Russ., Engl. Rés.). 4 figs., 3 tabl., Bull. Far East. Branch Acad. Sc. U. S. S. R., 1/2/3, 67-78. Vladivostok (1933). **b - 1103**

This paper contains the results of investigations conducted in 1931 and 1932 in the Bering Sea by expeditions of the Pacific Scientific Institute of Fisheries. It deals however only with 31 species of fish, of which new data, concerning their biology, systematics and distribution, have been obtained. Two new species and one subspecies are described.

**Tesch J. J.** - Herring Races in the Southern North Sea [*De stirpibus aringorum in parte meridionali Maris Nordici*]. 16 figs., 2 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, 3-ème partie, Appendices, 1933-1934, LXXXIX, 45-52. Copenhague (1934). **b - 1104**

The following investigations carried out in the autumn of the years 1927, 1928, 1932, and 1933 are based on the frequency of vertebrae as is here shown in numerous graphs and tables. Two types with different spawning times are pointed out, which, however, are not to be distinguished by their length in their first winter of scaled existence.

**Toner G. C.** - Notes on the Alewife (*Pomolobus pseudoharengus*). Canad. Field Natural., XLVIII, 51-52. Ottawa (1934). **b - 1105**

**Trewavas E.** - On the Structure of Two Oceanic Fishes, *Cyema atrum* Günther and *Opisthoproctus soleatus* Vaillant [*Cyema atrum* Günther *et Opisthoproctus soleatus* Vaillant. *Quæstio de structura*]. Proc. Zool. Soc. London, 601-614. London (1933). **b - 1106**

**Unger Paul** - Big Fish and Little Fish [*Piscis magnus et pisciculus*]. 48 pl., xvi pp., George Routledge & Sons, Ltd. London (1933). **b - 1107**

**Ussing Hj.** - Om nogle jydske Lampretter. Biologiske Bidrag [*De quibusdam lampetris jutlandicis. Contributiones in biologiam*] (Engl. rés.). 6 figs., Vidensk. Medd. Dansk naturhist. Foren. i København, XCVII, 191-205. København (1933-1934). **b - 1108**

Conclusions as to the different stages and spawning periods of two fresh water species and the breeding and migration of the sea-lamprey, *Petromyzon marinus* Linn. Some *Ammocoetes* probably belonging to the sea-lamprey are recorded.

**Vinciguerra D.** - Res ligusticae. LXII. Del genere *Hymenocephalus* (Pesci Macruridi) e particolarmente della specie mediterranea (*H. italicus*) Gigl.) [*Res ligusticæ. LXII. Genus Hymenocephalus (Pisces macruridæ). Agitur particulatim speciei mediterraneæ « H. italicus »* Gigl.]. 1 fig., 1 tav., Ann. Mus. Civ. Stor. Natur. Giacomo Doria, LVI, 1932-34, 14-26. Genova (1934). **b - 1109**

L'A. dopo aver parlato della zona a *Nephrops norvegicus* qualificata « fondo a Scampi » in una zona a occidente del porto di Genova, prende in esame una raccolta di materiale costituito da 146 *Hymenocephalus italicus* pescati al largo di Voltri (350-450 m. di profondità) e a Sud di Portofino (400 m. di profondità).

**Vladykov V. D.** - Young Haddock in the Halifax Area [*Gadus æglefinus juvenis in regione* Halifax]. Ann. Rep. Biol. Board Canada, 1932, 41-42. Ottawa (1933). **b - 1110**

Abundance of young Haddocks (2 to 3 years old) in the Halifax area and of exceptionally large numbers of this fish in St. Margaret Bay during the summer of 1932. Forecast of good catches of commercial haddock in the future. Analysis of the stomach content of several hundreds of haddock. Difference in diet between the young and adult haddock. Experiments on young Haddocks kept in tanks with running seawater. Some observations on the food of these Haddocks.

**Vladykov V. D.** - Haddock Races along the North Atlantic Coast [*Gadus æglefinus præter litora nordica Oceani Atlantici*]. 1 table, Ann. Rep. Biol. Board Canada, 1933, 40. Ottawa (1934). **b - 1111**

Results of observations of 500 Haddocks procured from four different localities examined as to the following racial characters, (1) number of vertebrae, and (2) number of gill-rakers of the first gill-arch on the left side of the fish; the results suggest the presence of at least two different races (« Nova Scotia » and « New England ») of haddock along the North American coast.

**Vladykov V. D.** - Young Haddock in the Vicinity of Halifax, N. S. [*Gadus æglefinus juvenis præter* Halifax, N. S.]. 8 tabl., Contr. Canad. Biol. & Fish., VIII, 29, 409-419. Toronto (1934). **b - 1112**

This study is based on five hundred and seventy-six Haddocks caught in Eastern passage and Bedford basin. The material from both localities consisted of the broods of 1928, 1929, 1930 and 1931; the three-year-old fish (brood 1929) were most abundant in both places, comprising over 70 %. A striking inverse relationship between water temperatures and number of fish caught was established. The highest catches were made at temperatures from 4 to 7° C., whereas between 11 and 13° C. only small occasional catches were obtained.

**Weed Alfred C.** - Notes on Fishes of the Family *Hemirhamphidæ* [*De piscibus ad familiam « Hemirhamphidæ » pertinentibus. Notæ*]. Zool. Ser. Field Mus. Natur. Hist., XX, 41-66. Chicago (?). **b - 1113**

**Wenter Joseph** (Translated from the German by Charles Ashleigh) - Laikan: the Story of a Salmon [*Historia cuiusdam salmonis*]. vii + 241 pp., Rich and Cowan Ltd. London (1934). **b - 1114**

**Whitley Gilbert** - A New Fish, Reputed to be Poisonous, from Queensland [*Piscis novus ex regione* Queensland *venenosus consideratus*]. 1 pl., 1 fig., Mem. Queensl. Mus., X, 4, 175-179. Brisbane (1934). **b - 1115**

*Lutjanus coatesi* sp. nov. (Red bass). Diagnosis, colour, locality, affinities.

**Whitley Gilbert** - Notes on Some Australian Sharks [*De quibusdam Squalis australiensibus. Notæ*]. 3 pl., 4 figs., Mem. Queensl. Mus., X, 4, 180-200. Brisbane (1934). **b - 1116**

These notes, which are the result of 12 years' studies carried on in the Museums of Australia and New Zealand as well as in the field are preliminary descriptions to a « Shark Book » to be issued as a popular guide. The following genera and species are new: *Nebrodes concolor ogilbyi* subsp. nov., *Gillisqualus* gen. nov., *G. amblyrhynchoides* sp. nov., *Galeolamnoides* gen. nov. There is also a list given of the Sharks of Australia and New Zealand with an indication of their size, breeding methods and harmfulness to man.

**Whittaker W. R.** - Age Composition of the Pilchard Catch as Shown by the Otoliths [*Clupea pilchardus. Compositio specierum capturarum ex aetate per otholithos determinata*]. Ann. Rep. Biol. Board Canada, 1933, 103. Ottawa (1934). **b - 1117**

Results of the examination of the otoliths of a representative portion of the pilchard catch at Nootka and Ecoole for the 1932 season, in order to determine the age composition of the catch and to judge upon the cause of those fluctuations in abundance of fish which from time to time affect the fishery.

**Wilby G. V.** - New Records of Fish on the Coast of British Columbia [*Dati novi de piscibus ad Columbiam Britannicam pertinentibus*]. Ann. Rep. Biol. Board Canada, 1933, 103-104. Ottawa (1934). **b - 1118**

Account of the results of a critical examination made of the material of the Pacific Biological Station at Nanaimo and the collection in addition of about 500 specimens from the Strait of Georgia. List of new genus and species and of new records.

**Wilby G. V.** - Ichthyological Treasures from the « Albatross » Expeditions in Canadian Waters [*Collectio ichthyologica ex navigationibus navis* « Albatross » *per undas canadenses*]. Canad. Field Natural., XLVIII, 121-126. Ottawa (1934). **b - 1119**

Gives a list of many species of Fishes taken in Canadian waters by this vessel; also a bibliography.

**Wood Henry** - Scottish Investigations on Adult Herring Shoals in the North Western North Sea, 1933 [*Inquisitiones a Scotis peractæ in turmas aringorum adultorum in parte nord-occid. Maris Nordici, a. 1933*]. 4 figs., 8 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, 3-ème partie, Appendices 1933-1934, LXXXIX, 57-67. Copenhague (1934). **b - 1120**

This season offered a special interest from the biological point of view on account of the sudden changes in the distribution and the composition of the shoals on the drift-net grounds and adjacent areas. Age composition in different regions. Distribution and suggested movements. Racial analysis. Exceptional samples. The Berwick coast. The spring spawners of the Firth of Forth.

**Yessipov W. K.** - Brief Review of the Ichthyofauna of the Kara Sea [*Recognitio brevior de fauna ichthyologica in Mari* Kara] (In Engl., Russ. Rés.). Arctica, 1, 169-186. Leningrad (1933). **b - 1121**

Short history of the investigation of the Kara Sea. Review of the ichthyofauna of this sea: list of the Fishes of the Kara Sea which contains 24 species of salt-water Fishes, 7 species of migratory and semi-migratory fish and 9 species of fresh-water Fishes, which have been found to enter from the rivers into the brackish waters of the Ob Bay and the Gulfs of Yenissey and Pjassina. At the end of the paper a bibliographic index is given, which includes but the most important works on the ichthyofauna and fisheries of the Kara Sea and the rivers discharging themselves into it.

## Mammalia.

**Birula A. A.** - Ueber die Seesäugetiere des Weissen Meeres [*Mammalia marina Maris Albi*]. Zool. Anz., CVII, 10-22. Leipzig (1934). **b - 1122**

**Cabrera A.** - Le dauphin et sa parenté [*Delphinus. Quæstio de parentela*]. Industrias pesqueras, 15 mai. (?) (1933). **b - 1123**

**Călinesco R. I.** - Les Mammifères de la Dobrodgéa et surtout ceux du littoral de la Mer Noire [*Mammalia ad regionem* Dobrodgéa *nomine pertinentia. Agitur particulatim de Mammaliis litoreis ponticis*]. 1 carte, Ann. Scient. Univ. Jassy, XIX, 1/4, 373-377. Jassy (1934). **b - 1124**

Phocidés : *Monachus albiventer*. Delphinidés : *Delphinus delphis, Phocaena relicta, Tursiops truncatus.*

**Davidson M. E.** - On a Whale Skeleton in the Collections of the California Academy of Sciences [*De scheletro cuiusdam balaenae in collectionibus ad* « California Academy of Sciences » *pertinentibus*]. Science, LXXX, 2066, 118. New York (1934). **b - 1125**

In occasion of an article by Mr. F. C. Fraser on a blue whale skeleton stating that it is almost certainly the largest articulated skeleton in any Museum in the world, the A. publishes the measurements of an articulated specimen of a male blue whale (*Sibbaldus musculus*) in the collection of the California Academy of Sciences, S. Francisco.

**Drygalski (v.) Erich** - Die neuen Walforschungen in den südlichen Meeren [*Inquisitiones novæ in balænas Marium merid.*]. Naturwiss., XXII, 38, 637-639. Berlin (1934). **b - 1126**

Bibliographische Uebersicht der norwegischen (Hvalrådets Skrifter) und englischen (Discovery-Comm. u. Govmt. Depend. Falkland Isl.) veröffentlichten Arbeiten in Bezug auf den Walfang sowie auch ozeanographische, biologische und paläontologische Untersuchungen (Arbeiten von Sverdrup, Ekman, Earland, Sheppard, Hart, Deacon, Moore u. a.).

**Fraser F. C.** - Report on *Cetacea* stranded on the British Coasts from 1927 to 1932 [*Relatio de Cetaceis in sabulis litoreis Britannicis a 1927 ad 1932*]. 6 maps, 41 pp., 11, British Mus. (Natur. Hist.). London (1934). **b - 1127**

**Hamilton J. E.** - The Southern Sea Lion, *Otaria byronia* (de Blainville) [*Otaria byronia* (de Blainville) *Maris merid.*]. 13 pl., Discovery Rep., (Govmt. Depend. Falkland Isls.), VIII, 269-310, Univ. Press. Cambridge (1934). **b - 1128**

**Huber Ernst,** arr. by **Brazier Howell A.** - Anatomical Notes on Pinnipedia and Cetacea [*Pinnipedia et Cetacea. Notæ anatomicæ*]. ills., Carnegie Instit., Publ. 447. Washington, D. C. (1934). **b -1129**

The A. deals with the *Pinnipedia* (*Otariidae, Phocidae*) and *Cetacea* (*Tursiops truncatus, Monodon monoceros*).

**Klikh N.** - Le phoque du Groenland [*Phoca Groënlandica*] (En russe). Sov. Sever, 6, 93-94. Moskva (1933). **b - 1130**

**Lönnberg Einar** - *Prodelphinus Graffmani* n. sp. a New Dolphin, from the Pacific Coast of Mexico [*Prodelphinus Graffmani, species nova ex litoribus mexicanis Oceani Pacifici*]. 1 fig., 1 pl., Ark. f. Zool., 26 A, H. 4, 19, 1-11. Stockholm (1934). **b - 1131**

The material available for measurements and classification of this dolphin from Acapulco consists of the skin with the fins in situ, the upper jaw with the tooth row complete on the right side, and the complete lower jaw.

A detailed discussion follows from which it becomes quite clear that this Dolphin is quite distinct from all known members of the genus *Prodelphinus* not only with regard to its colour, but also with regard to morphological characteristics as far as the available material can prove. The A. ventures therefore to name it *P. Graffmani* n. sp.

**Meniam C. Hart** - A Hypothetical « Sanctuary » for Ocean-Dwelling Seals [*Agitur de sanctuario quodam hypothetico ad usum phocarum oceanicarum*]. Science, LXXX, 2069, 186-187. New York (1934). **b - 1132**

Critical note putting in evidence the errors made by C. W. Hobley in his recent leaflet, in which he states the necessity of studying the bionomics of Hood and Harp Seals and of protecting immature animals.

**Plekhanov P.** - Détermination de l'âge chez le phoque [*Aetatis determinatio in Phoca*] (En russe). 3 fig., Bull. Naoutchno-Issl. Inst. Zool. Univ. Moscou, 88-91. Leningrad-Moskva (1933). **b - 1133**

**Serène Raoul** - Sur un échouage de *Kogia breviceps* Gray à proximité de l'Institut Océanographique de Nhatrang (Annam) [*Kogia breviceps* Gray *in arena prope Institutum Oceanographicum civitatis* Nhatrang (*in* Annam)]. Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 4, 398-399. Paris (1934). **b - 1134**

L'A. a pu observer l'animal encore vivant et assister à l'échouage proprement dit. Après l'échouage il a pratiqué un examen des caractères spécifiques du Cétacé et a opéré quelques mensurations. Rareté de cette espèce, signalée et reconnue pour la première fois dans la Mer de Chine.

**Steven G. A.** - A Short Investigation into the Habits, Abundance, and Species of Seals on the North Cornwall Coast [*Inquisitio brevis in consuetudines, abundantiam et species phocarum præter litora regionis* North Cornwall]. 3 charts, Journ. Mar. Biol. Assoc., XIX, 2, 489-501. Plymouth (1934). **b - 1135**

Grey Seals (*Halichoerus gryphus*) are present in considerable numbers, and are probably the commonest Seals in Cornish waters. Brown Seals (*Phoca vitulina*) appear to be few around Cornwall.

In the course of three trips to the herring grounds in the vicinity of St. Ives five Seals were sighted. Seven others were also seen at various other times and places in the course of five days spent in that locality. During a single night at sea in Port Isaac Bay eight Seals were sighted. In an appendix detailed log of observations and events is given.

**Takashima Haruo** - A Handlist of Japanese Marine Mammals [*Mammalia Japonica marina. Cathalogus*] (In Jap.). Trans. Natur. Hist. Soc. Formosa, XXIII, 126/127, 249-258. (1933). **b - 1136**

Brief notes on 35 species.

**Towsend Charles H.** - The Fur Seal of the Galapagos Islands [*Arctocephalus galapagoensis ex Insulis* Galapagos]. 14 pp., Zoologica, New York Zool. Soc., XVIII, 2. New York (1934). **b - 1137**

This study deals with several specimens of *Arctocephalus galapagoensis* captured in 1932 and '33. Eleven photographs of these Seals are presented in this paper.

**Wheeler J. F. G.** - On the Stock of Whales at South Georgia [*Turma balænarum ad Georgiam meridionalem pertinens*]. Discovery Rep. (Govmt. Depend. Falkland Isls.), IX, 351-372, Univ. Press. Cambridge (1934). **b - 1138**

**Zenkovitsch B.** - Some Data on Whales of the Far East [*De balænis ad extremas Orientis regiones pertinentibus. Notæ et dati*]. (In Russ. & Engl.). 1 table, C. R. Acad. Sc. U. R. S. S., II, 6, 388-392. Léningrad (1934). **b - 1139**

In this paper author presents the results of his observations on the food of the Californian grey whale, *Rhachianectes glaucus* (Cope), the sex and age of *Physeter macrocephalus* (Lin.), and of weighing of two fin whales, *Balaenoptera physalus* (Lin.) and one humpback whale, *Megaptera nodosa* (Bonn.), made to ascertain approximately the average weight of a whale. The observations have been made during the second expedition, 1933, of the 1st Soviet Whaling Fleet « Aleut ».

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**E. P.** - Le Loch Ness et son monstre [*Monstrum marinum ex* Loch Ness]. Bull. Soc. Amis Inst. Océanogr. Havre, XVI, 46, 1-2. Le Havre (1934). **b - 1140**

Conférence tenue par M. le Docteur Jacques Pellegrin. Il est d'avis que le ou les monstres sont des Mammifères marins, du genre Phoque arrivés de l'Atlantique par la rivière Ness ou le Canal Calédonien.

**V. E.** - Étude sur la biologie et la chasse des Baleines [*Balænæ. Agitur de earum biologia et captura*] (En russe). Sov. Sever, 6, 109. Moskva (1933). **b - 1141**

## Animalia incertae sedis.

**Cooper G. Arthur** - New Brachiopods [*Brachiopoda nova*]. Reports on the Collections Obtained by the First Johnson-Smithsonian Deep-sea Expedition to the Puerto Rican Deep, 2 pl., Smiths. Miscell. Coll. (Publ. 3241), XCI, 10, 1-5. Washington, D. C. (1934). **b - 1142**

*Gryphus Bartschi* and *Argyrotheca Johnsoni.*

**Leloup E.** - Brachiopodes [*Brachiopoda*]. Résult. Scient. du voyage aux Indes Orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique, Mém. Mus. R. Hist. Natur. Belgique, h. sér., II, 13, 7-14. Bruxelles (1933). **b - 1143**

Les Brachiopodes recueillis appartiennent à deux espèces assez communes dans ces parages de l'Océan Indo-Pacifique : *Lingula anatina* Bruguière et *Frenulina sanguinea* (Chemnitz). L'A. en donne : la synonymie, la description et la distribution géographique.

**Okada Yaichiro** - Bryozoa Fauna in the Vicinity of the Shimoda Marine Biological Station [*Agitur de fauna bryozoica apud stationem biologicam marinam in* Shimoda]. 2 pl., Sc. Rep. Tokyo Bunr. Daig., sect. B., II, 26, 1-202. Tokyo (1934). **b - 1144**

22 species are described, of which *Iodictyum Shimodai* is new.

**Stekhoven J. H. S.** - Bryozoen und Nematoden [*Bryozoa et Nematodes*]. Zool. Anz., CV, 57-59. Leipzig (1933). **b - 1145**

**Yabe Hisakatsu & Hatai Kotora** - The Recent Brachiopod Fauna of Japan. (1) New Genera and Subgenera [*Brachiopoda japonica recentiora.* (1) *Genera et subgenera nova*]. 4 figs., 1 table, Proc. Imp. Acad., X, 9, 586-589. Tokyo (1934). **b - 1146**

In a list the total number of genera and species known from the seas around Japan together with their geographic distribution in the Pacific Ocean is given. 30 species in 13 genera and 1 subgenera distributed in 4 families are discriminated among the numerous specimens of Brachiopods collected by the surveying ship « Sôyô-maru ». The new forms described in this paper are as follows : *Neohemithyris*, gen. nov., *Surugathyris* subgen. nov., *Nipponithyris* gen. nov.

**Yabe Hisakatsu & Hatai Kotora** - The Recent Brachiopod Fauna of Japan. (2) New Species [*Brachiopoda japonica recentiora.* (2) *Species novæ*]. 44 figs., Proc. Imp. Acad., X, 10, 661-664. Tokyo (1934). **b - 1147**

*Hemithyris pellucida, Terebratulina pacifica, T. kyusyuensis, Jolonica nipponica, Dallina obessa, D. triangularis, Laqueus quadratus, L. japonicus, L. proprius, L. orbicularis.*

**Zirpolo Giuseppe** - *Zoobotryon verticillatum* (Delle Chiaje). 115 fig., 11 tav., Mem. Pont. Acc. Sc. Nuovi Lincei, ser. II, XVII, 109-442. Roma (1933). **b - 1148**

Studio completo morfologico, fisiologico ed embriologico sullo *Zoobotryon verticillatum* (Delle Chiaje), briozoo comunissimo ed abbondante nel Golfo di Napoli. Lo *Zoobotryon verticillatum* (Delle Chiaje) vive nel Golfo di Napoli, nel Golfo di Trieste, nel Mar Rosso, nell'Oceano Indiano, nell'Atlantico, nei Mari Australiani, nel Mediterraneo e sulle Coste africane.

## Plantae marinae.

**Allen W. E.** - Marine Plantation Diatoms of Lower California [*Diatomeæ marinæ in California meridionali*]. Bot. Gaz., XCV, 485-492. Chicago, Ill. (1934). **b - 1149**

Twenty-nine genera have been found in the plankton Diatoms in surface waters off the coast of Lower California from Pt. San Eugenio to Pt. San Lazaro.

**Ålvik Gunnar** - Plankton-Algen norwegischer Austernpollen. I. Systematik und Vorkommen der Arten [*De algis planctonicis in bacinis norvegicis ostrearum. I. De systematica et speciebus*]. 10 Tab., 2 Taf. mit 36 Abb., 5 Abb. i T., Bergens Mus. Årb., Naturv. r., H. 1, 6, 1-47. Bergen (1934). **b - 1150**

Beschreibung der Austernpollen. Das Nannoplankton in den Austernpollen. Die Herstellungen von Speziesreinkulturen der Algen. Beschreibung der gezüchteten neuen Spezies von Algen : *Chlorococcum submarinum* n. sp., *Chlorella spärckii* n. sp., *Carteria micropapillata* n. sp., *Brachynema bacillare* nov. gen. et n. sp. (*Heterocontae*), *Catella rubra* nov. gen. et n. sp. (*Cyanophyceae*) und *Synechococcus gaarderii* n. sp.

**Børgesen F.** - Some Marine Algae from the Northern Part of the Arabian Sea with Remarks on their Geographical Distribution [*Algæ quædam marinæ in parte septentr. Maris Arabici. Adjunguntur observationes de earum geographica distributione*]. 8 figs., 2 pl., Kgl. Danske Vidensk. Selsk., Biol. Medd., XI, 6, 1-72. København (1934). **b - 1151**

Systematically arranged list of the species hitherto found at Karachi, Okha Port and Dwarka : *Chlorophyceae, Phaeophyceae, Rhodophyceae*. Tables of species showing their geographical distribution. Some plant geographical considerations.

**Brujewicz S. W., Trofimov A. V. & Hartmann A. N.** - The Iodine Content of the *Algæ* of White-Sea and Murman Coast [*Algæ Maris Albi et litorum* Murman *nomine. Agitur de jodio quod continent*] (In Russ., Engl. Rés.). 1 fig., 7 tabl., Trans. Oceanogr. Inst., III, 3, 61-78. Moscow (1933). **b - 1152**

Results of the determination of the iodine-content of about 120 species of different *Algae* gathered in the White Sea and along the Murman Coast, chiefly *Laminaria*. The iodine-content has been determined after dry ashing (Fellenberg) and sometimes by wet burning (Pfeiffer). Ashes and moisture have been determined.

**Brujewicz S. W. & Tschajkina I. A.** - Hydrochemical Observations in the Northern Part of the Kola Fjord (Barents Sea) in Summer 1931 [*Observationes hydrochymicæ in parte septentrionali Bajæ* Kola (*Maris* Barents) *æstate 1931*]. (In Russ., Engl. Rés.). Trans. Oceanogr. Inst., III, 3, 120-124. Moscow (1933). **b - 1153**

Results of investigation on salinity, dissolved oxygen, pH, phosphates and nitrites content of the water in the Kola Fjord ; variation and changes in the hydrochemical elements during the various seasons of the year. In an appendice a Table of Results of the hydrochemical observations performed in 1931 in the Northern Part of Kola Fjord simultaneously with botanical observations on the the growth of the iodine containing *Algae* and a study of the intensity of the photosynthetic process in different months are given.

**Butcher R. W.** - Notes on the Variation of the British Species of *Zostera* [*De variatione specierum britannicarum ad genus « Zostera » pertinentium*]. Rep. Bot. Exchange Club for 1933, X, 592-597. (1934). **b - 1154**

**Carmin Jos.** - *Algæ* of Palestinian Shores [*Algæ ex litoribus Palestinæ*]. Bull. Inst. Océanogr., 653, 1-7. Monaco (1934). **b - 1155**

List of collected *Algae : Chlorophyceae, Phaeophyceae, Rhodophyceae, Diatomeae*. General observations and notes on the geographical distribution, predominant species in different zones, abundance, reproduction periods, migration of the species listed.

**Chemin E.** - Une excursion algologique aux îles Anglo-Normandes [*Navigatio algologica ad insulas Anglo-Normannas*]. 1 carte, Bull. Labor. marit. Saint-Servan, XII, 1-22. Rennes (1934). **b - 1156**

Études algologiques dans les îles de Jersey, Guernesey et Sercq et dans l'archipel des Ecréhous. Étude chronologique des stades de l'extension d'espèces exogènes, *Falkenbergia Hillebrandii* et *Asparagopsis armata*. Comparaison de la flore des îles avec celle du littoral normano-breton, qui forme avec elles la province nord-armoricaine. Interprétation des différences observées.

**Chemin E.** - La flore algologique de l' île d'Aurigny dans ses rapports avec celle du Cotentin [*Correlatio inter floram algologicam insulæ* d'Aurigny *et floram regionis* Cotentin]. 2 cartes, Bull. Labor. marit. Saint-Servan, XIII, 6-21. Rennes (1934). **b - 1157**

Description des diverses stations de l'île. Étude des espèces apparues dans la région au cours de ces dernières années. Définition d'une province nord-armoricaine et d'une province lutétienne.

**Feldmann J.** - Contribution à la flore algologique marine de l'Algérie, fascicule 2. [*Contributio in floram algologicam marinam algarinam. Fasc. 2us*]. Bull. Soc. Hist. Natur. Afrique du Nord, XXIV, 360-366. (?) (1933). **b - 1158**

**Flowers Seville** - Vegetation of the Great Salt Lake Region [*Agitur de vegetatione in regione* Great Salt Lake]. Bot. Gaz., XCV, 353-418. Chicago, Ill. (1934). **b - 1159**

Description of the *Algae* native to the waters of the Great Salt Lake, of the *Algae* living in salt-marshes in the vicinity, and in sloughs, wetter and more saline than the marshes.

**Fott B.** - Stades persistants de *Bryopsis muscosa* Lamouroux [*B. muscosa* Lam. *Stadia persistentia*]. 10 fig., Mém. Soc. R. Sc. de Bohème, Cl. Sc., 2, 1-4. Prague (1934). **b - 1160**

Observations faites à Villefranche-sur-Mer sur la persistance de *B. muscosa*, une espèce d'algue commune de la flore marine de la Côte d'Azur. Schéma de la phase germinative du filament segmenté de l'algue en question et observations sur les kystes qui se rapprochent des états persistants segmentés.

**Häyrén Ernst** - Einige Algenfunde aus dem Finnischen Meerbusen [*De Algis in Sinu Finlandico*]. Mem. Soc. pro Fauna et Flora Fennica, IX, 1932-1933, 172-173. Helsinki (1933-34). **b - 1161**

Bericht über einige vom Vf. wie von zwei anderen Personen gesammelte Algenarten, besonders *Ceramium, Cladophora* und *Enteromorpha*.

**Hoffmann C.** - Die Tierwelt der Nord- und Ostsee. Lief. 25. Teil 1. c : Die Vegetation der Nord- und Ostsee [*De fauna Maris Nordici et Maris Baltici. Fasc. 25. Pars 1 c : De vegetatione Maris Nordici et Maris Baltici*]. 32 S., Begr. von Grimpe G. & Wagler E. Hrsg. von Grimpe G., Akad. Verlagsg. m. b. H. Leipzig (1933). **b - 1162**

**Howe Marshall A.** - Plants that Form Reefs and Islands [*Plantæ vada insulasque formantes*]. Scient. Monthly, XXXVI, June, 549-552. New York (1933). **b - 1163**

Importance of some *Algae* as reef-building and land-forming by secreting or precipitating lime from the surrounding water. Particular study of the island of Funafuti, of the Ellice Islands group in the « South Seas ».

**Howe Marshall A.** - Hawaiian *Algæ* collected by Dr. Paul C. Galtsoff [*Algæ ex insulis* Hawaii, *collectæ a Dr.* P. C. Galtsoff]. 5 figs., Journ. Wash. Acad. Sc., XXIV, 32-42. Washington, D. C. (1934). **b - 1164**

Fourteen marine *Algae* from Karreohe Bay, Ohau and thirteen from Pearl and Hermes Reef are described. One species of *Trichogloea* and two of *Laurencia* are new.

**Inagaki Kwan' iti** - Red *Algæ* in the Gulf of Osyoro and Neighbouring Sea [*Rhodophyceae in Sinu* Osyoro *et mari adiacente*] (In Jap.). 31 figs., Rep. Stat. Algal Res., Hokkaido Imp. Univ., 2, 1-77. (?) (1933). **b - 1165**

69 species of *Rhodophyceae* are described in this paper. A key for the determination of the genera is given.

**Kireeva M. S. & Schapova T. F.** - Report on Stationary Works undertaken by the Department of Bottom *Algæ* of the State Oceanographical Institute for the Study of Iodine-bearing *Algæ* [*Relatio de operibus peractis a Sectione pro Algis ad* « State Oceanographical Institute » *pertinente, algis jodium producentibus studendis*]. (In Russ., Engl. Rés.). 2 charts, 11 figs., 15 tabl., Trans. Oceanogr. Inst., III, 3, 29-49. Moscow (1933). **b - 1166**

Record of stationary observations carried on since the month of May, 1931, on iodine-bearing *Algae* of the Murman Coast in Kolsky Fjord and off the Kildin Island (White Sea). Determination of yearly increase of iodine-bearing *Algae, Laminaria, Fucus* and *Ascophyllum*. Study on sporogenesis in *Laminaria saccharina* f. *membranacea* J. Ag. and *L. digitata* d. *genuina* Kjellm. f. *typica* Kjellm. Definition of increase of frond by months. Investigations in Volokovaja Bay for determining the stock of raw material of *Laminaria*.

**Kylin H.** - On Three Species of *Delesseriaceæ* from New Zealand [*Delesseriaceæ. Species tres ex Nova Zelandia*]. Trans. of New Zealand Inst., LXIII. (?) (1933). **b - 1167**

*Myriogramme undulatissima* Kylin changes into *Erythroglossum undulatissimum* (J. Ag.) Kylin, *M. oviformis* Kylin is similar to *Abroteia suborbicularis* Harv., *Erythroglossum Laingii* Kylin is described as a new species.

**Lewis I. F. & Taylor W. R.** - Notes from the Woods Hole Laboratory [*Notæ ex Laboratorio in* Woods Hole]. 1 pl., Rhodora, XXXV, 413, 147-154. (?) (1933). **b - 1168**

Some notes on the *Algae* collected by Dr. Jordan at the Pennikese Island, off Woods Hole.

Variations in the abundance of several species. Occurrence of *Tilopteris Mertensii* and *Sphacelaria plumigera* for the first time in America. Dispersion of *Zostera marina* in 1932 from the Atlantic littoral of the United States.

**McFarlane Constance & Bell Hugh P.** - Observations of the Seasonal Changes in the Marine *Algæ* in the Vicinity of Halifax, with Particular Reference to Winter Conditions [*Observationes de variationibus pro anni tempore Algarum marinarum præter* Halifax. *Agitur particulatim de condicionibus hiemalibus*]. 2 figs., Proc. Nova Scotian Inst. Sc. Halifax, XVIII, 3, 134-176. (?) (1934). **b - 1169**

Notes on frequency, habitat and season of eighty species are given in the present paper. From autumn till the middle of January the dominant species are: *Ilea, Scytosiphon, Dumontia, Polysiphonia*; until the end of April: *Monostroma, Spongomorpha, Bangia*; and thereafter *Laminaria, Chorda, Polysiphonia*, etc., gradually replaced by *Chordaria*, which becomes dominant by June. In late August and early September a barren period prevails.

**Meyer K. I.** - Report on the Work of the Expedition for Determining the Stock of Seaweeds in the White Sea [*Relatio de operibus ab expeditione peractis ad copiam Algarum Maris Albi determinandam*] (In Russ., Engl. Rés.). 3 maps, 11 tabl., Trans. Oceanogr. Inst., III, 3, 7-28. Moscow (1933). **b - 1170**

Staff of the expedition sent out by the Oceanographic Institute. Results of investigations on the spreading of the seaweeds vegetation along the explored coastal areas; seaweeds of industrial importance; their composition as to species, their distribution in relation to bottom-conditions and other factors, the maximum depth reached by those *Algae*. Exploration of experimental areas (1 sq. meter each) in order to obtain numerical data on the richness in alga of the various points of the White Sea. Investigation of drift-weeds supplied by the sea.

**Miki Shigeru** - On the Sea-grasses of Japan. (1) *Zostera* and *Phyllospadix*, with Special Reference to Morphological and Ecological Characters [(*1*). *Zostera et Phyllospadix ad Japoniam pertinentes. Agitur particulatim de eorum morphologia et characteristicis oecologicis*]. 8 figs., Bot. Magaz., XLVII, 843-862. Tokyo (1933). **b - 1171**

The following four species are considered really endemic: *Zostera asiatica, Z. caespitosa, Phyllospadix japonicus* and *Ph. iwatensis*. Morphological observations on rhizomes.

The *Zostera* species grow on muddy and sandy places of the bay, *Phyllospadix* lives upon the rocks washed by open sea-water.

Some species of these two genera live only in temperate sea, others in cold currènt sea, still others have a wide distribution.

**Miranda F.** - Materiales para una flora marina de las rías bajas gallegas [*Res collectæ ad floram marinam comparandam in accessibus fluminum Galleciae*]. 6 figs., 1 lám., Bol. Soc. Españ. Hist. Natur., XXXIV, 2/3, 165-180. Madrid (1934). **b - 1172**

El A. tuvo la ocasión de recoger durante el año 1933, en la ría de Pontevedra, unas Algas marinas. El A. puede dar algunas adiciones a la flora ficológica española. Estas son las que siguen: *Vaucheria coronata, Polysiphonia urceolata, Choreocolax Polysiphoniae, Falkenbergia Hillebrandii, Corallina elegans, Cladophora rudolphiana, Castagnea Zosterae, Punctaria latifolia, Cruoria purpurea, Rhodochorton velutinum, Callocolax neglectus, Gonimophyllum Buffhami, Rhodochorton membranaceum, Holmsella pachyderma, Colaconema Bonnemaisoniae, Bonnemaisonia clavata*. Otras adiciones a la flora ficológica española. Hallazgos interesantes desde el punto de vista de la distribución de las Algas marinas en las costas españolas. Los tipos de curvatura del ramo carpogónico en el género *Callithamnion*.

**Miyabe Kingo & Nagai Masaji** - *Laminariaceæ* of the Kurile Islands [*Laminariaceæ ex insulis* Kurile] (In Engl., Jap. Rés.). Trans. Sapporo Natur. Hist. Soc., XIII, 85-102. (?) (1933). **b - 1173**

Description of the species and keys for their identification. 11 species of *Laminaria*, of which two are new, 3 of *Cymathaere*, 1 of *Kjellmanella, Costaria, Hedophyllum*, 2 of *Arthrothamnus*, 1 of *Thalassiophyllum*, 5 of *Alaria* and 1 of *Pleuropterum* are dealt with in this paper.

**Nagai Masaji** - On a New Species of *Cymathære* from the Kurile Islands [*De nova quadam specie ad genus* « *Cymathære* » *pertinente ex insulis* Kurile]. 6 figs., Proc. Imp. Acad., IX, 531-534. Tokyo (1933). **b - 1174**

Diagnosis of the new species *C. fibrosa* found for the first time in the Kurile Islands.

**Nagai Masaji** - Meeresalgen aus Kamtschatka [*Algæ marinæ e* Kamtschatka] (In Dtsch., Jap. Rés.). Trans. Sapporo Natur. Hist. Soc., XIII, 12-19. (?) (1933). **b - 1175**

Bericht über eine Sammlung von 4 Chlorophyceen, 8 Phaeophyceen und 4 Rhodophyceen aus der Ost- und Westküste.

**Okamura K.** - Icones of Japanese *Algæ* [*Tabulæ Algarum Japonensium*] (In Engl. & Jap.). 5 pl., VII, 1, 1-7, Publ. by the Author. Tokyo (1933). **b - 1176**

The present paper concerns the following species: *Chrysymenia grandis, Griffithsia tenuis, Pleonosporium kobayashii, Nemastoma lancifolia, Odonthalia ochotensis, Sargassum kashiwajimanum*.

**Okamura K.** - On *Gelidium* and *Pterocladia* of Japan [*Gelidium et Pterocladia in Japonia*].

18 pl., Journ. Imp. Fish. Inst., XXIX, 2, 47-67. Tokyo (1934). **b - 1177**

Distinction between *Gelidium* and *Pterocladia*. Key to the Japanese species of *Gelidium*. The following new forms are recorded : *Gelidium tenue* sp. nov., *G. subfastigiatum* sp. nov., *G. vagum* sp. nov., *G. decumbensum* sp. nov., *G. clavatum* sp. nov., *Pterocladia tenuis* sp. nov., *P. densa* sp. nov.

**Okamura K.** - Notes on *Algæ* Dredged from the Pacific Coast of Tiba Prefecture [*Notæ de Algis, machinæ vada verrentis auxilio repertis, in litoribus Oceani Pacifici ad Præfecturam* Tiba *pertinentibus*]. 1 pl., Rec. Oceanogr. Works in Japan, VI, 1, 13-18. Tokyo (1934). **b - 1178**

There is only one species new to science : *Rhodymenia cuneifolia*. This paper throws much light on the depth inhabited by *Algae*.

**Parke M. W.** - Algological Records from the Manx Region [*De Algis repertis in regione* Manx]. Mar. Biol. Stat., Port Erin, 46th Ann. Rep. Oceanogr. Dept. Univ. Liverpool, 35-39. Liverpool (1933). **b - 1179**

**Pavillard Jules** - Les Péridiniens et Diatomées pélagiques de la Mer de Monaco pendant les années 1907 et 1908 [*Peridineæ et Diatomeæ pelagicæ Maris Arcis Monoeci a. 1907 et 1908*]. 1 fig., 3 tabl., Bull. Inst. Océanogr., 654, 1-6. Monaco (1934). **b - 1180**

Notes préliminaires qui ont pour but de faire connaître, année par année, les produits de l'analyse purement systématique des récoltes successives et de l'étude particulière des individualités spécifiques nouvelles, critiques ou mal connues.

**Politis Jean** - Algues marines de l'Ile de Crète [*De Algis marinis ad insulam Cretam pertinentibus*]. Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 257-261. Paris (1934). **b - 1181**

Historique des explorations de l'Ile de Crète au point de vue de ses richesses végétales, depuis 1548 jusqu'à nos jours. Compte rendu d'un voyage de trois semaines en Crète, fait par l'A. en 1925 ; liste des Algues de Crète récoltées et déterminées.

**Rees Ethel M.** - Some Observations on *Bifurcaria tuberculata* Stakh. [*Observationes quædam de Bifurcaria tuberculata* Stakh.]. Ann. of Bot., XLVII, 180. London (1933). **b - 1182**

Geographical distribution, habitat and anatomical features are studied for the species under consideration. A part of this monograph is devoted to the growth and development of this species.

**Ruud Føyn Birgithe** - Ueber den Lebenscyklus einiger Braunalgen [*De cyclo vitali in Phæophyceis*]. Bergens Mus. Årb., Naturv. r., H. 1, 2, 1-9. Bergen (1934). **b - 1183**

Vorläufige Mitteilung über einige im Sommer 1932 auf der biologischen Station auf Herdla ausgeführte experimentellzüchterische und cytologische Untersuchungen von *Ectocarpus siliculosus*, *Dictyosiphon chordaria*, *Mesogloia vermiculata* und *Eudesme zosterae*.

**Schiffner Viktor** - Meeresalgen aus Süd-Dalmatien, gesammelt von Franz Berger [*Algæ marinæ ex Dalmatia merid.*, *Franciscus* Berger *collegit*]. 4 Abb., Oesterr. Bot. Ztschr., LXXXII, 283-304. Wien (1933). **b - 1184**

Verzeichnis über etwa 100 Meeresalgen von der Halbinsel Sabbioncello und 28 von der Insel Lacroma. Beschreibung einer neuen Gattung *Pseudogelidium*, vier neuer Arten und Varietäten. Kritische Bemerkungen über die Formen von *Laurencia obtusa*, *Cladophora utriculosa* und *Dictyota*.

**Setchell William Albert** - Hong Kong Seaweeds. III. *Sargassaceæ* [*Algæ marinæ ex* Hong Kong. *III. Sargassaceæ*]. 18 pl., Hong Kong Natural., Suppl., 2, 1-49. (1933). **b - 1185**

Fourteen species of the genus *Sargassum* are described and figured. Description of two new species of the subgenus *Bactrophycus*.

**Setchell William Albert** - Some early Algal Confusions. II. [*Veteres confusiones in Algis determinandis*]. 19 pl., Univ. Calif. Publ. in Bot., XVII, 9, 187-254. Berkeley, Calif. (1933). **b - 1186**

Emendations of species from older herbaria, especially of the genera *Codium*, *Sargassum*, *Fucus* and *Halochloa*. Discussion on the synonymes.

**Setchell W. A. & Gardner N. L.** - De Gigartinis. Rev. Algol., VII, 1/2, 131-138. Paris (1934). **b - 1187**

Conspectus collocationis specierum Gigartinarum quoad subgenera. Species Gigartinae australianae Janardinianae rexaminatae. Revisiones nomenclaturae specierum.

**Setchell W. A. & Gardner N. L.** - A Preliminary Survey of *Gigartina* [*Recognitio prior generis « Gigartina »*]. 19 pl., Univ. Calif. Publ. in Bot., XVII, 10, 255-340. Berkeley, Calif. (1933). **b - 1188**

After having revised the entire content of species attributed, at present, to the genus, the AA. here suggest a tentative classification on the basis of the generic name *Gigartina*, as established by Stackhouse in 1809, with emphasis on the Californian species so far as they may be representative. Four series are erected with 7 subgenera ; description of every species. *Gigartina boryi* sp. nov., *G. Harveyana* (Kuetz.) comb. nov., *G. turneri* sp. nov., *G. cristata* (Setchell) comb. nov., *G. Agardhii* nom. nov.

**Sietti H.** - Nouvelle contribution à l'histoire naturelle de l'île d'Alboran [*Contributiones novæ in historiam naturalem insulæ* d'Alboran]. 3 pl., Bull. Soc. Sc. Natur. du Maroc, XIII, 1/3, 10-22. (?) (1933). **b - 1189**

**Skopintzev B. A.** - On the Iodine Containing *Algæ* [*De algis quæ jodium continent*] (In Russ.). 2 tabl., Trans. Oceanogr. Inst., III, 3, 52-60. Moscow (1933). **b - 1190**

Brief account and summary of existing Russian and foreign publications on iodine content in *Algae* and on expeditions organized with the aim of the biochemical and physiological study of these *Algae*.

**Skopintzev B. A. & Mikailovskaja L. A.** - Iodine Content in White-Sea Water [*Agitur de aquis Maris Albi deque jodio quod eæ aquæ continent*] (In Russ., Engl. Rés.). 6 tabl., 1 fig., Trans. Oceanogr. Inst., III, 3, 79-87. Moscow (1933). **b - 1191**

Data obtained by a new method of determination of the iodine-content of the water of the White Sea. Determination of the correlation between iodine-content and the currents. Some data on the iodine content of *Laminaria digitata* and *L. saccharina* in % % from the absolute dry substance.

**Stevens N. E.** - Disappearance of *Zostera marina* along the Atlantic Coast of North America [*Dilabitur Zostera marina præter litora atlantica Americæ Septentrionalis*]. Int. Bull. of Plant Protection, VII, Sept., 198. Rome (1933). **b - 1192**

**Trofimov A. V.** - On the Forms of Iodine in Algae [*De jodio eiusque variis formis in Algis*]

(In Russ., Engl. Rés.). 3 tabl., Trans. Oceanogr. Inst., III, 3, 88-94. Moscow (1933). **b - 1193**

Results of determination of iodine content in over 40 samples of *Algae* from the White Sea. Total and mineral iodine in the *Algae*. Mineral iodine in the *Algae* preserved by means of different methods of preservation. Influence of the method of preservation on the iodine-content. Forms of iodine in different parts of *Algae*. The species of *Algae* investigated were the following ones: *Laminaria digitata*, *L. saccharina*, *Desmarestia*, *Ascophyllum*, *Polyides rotundus*, *Ptilota*, *Fucus inflatus*, *F. serratus*, *Alaria esculenta* and *F. vesiculosus*.

**Trofimov A. V.** - Potentiometric Determination of Mineral Iodine in *Algœ* [*De jodio minerali in algis eiusque determinatione potentiometrica*] (In Russ., Engl. Rés.). 3 tabl., 2 diagr., Trans. Oceanogr. Inst., III, 3, 95-102. Moscow (1933). **b - 1194**

Critical analysis of the existing methods of determination of mineral iodine in *Algae* and their comparison with the method of potentiometric titration. The advantages of the latter, its accuracy illustrated on hand of practical examples, whose data are recorded in tables.

**Westbrook M. A.** - *Antithamnion Spirographidis* Schiffner. Journ. of Bot., LXXII, 65-68. London (1934). **b - 1195**

Structure, cells dimension and reproduction of this species found in the water of Devonport Dockyard. Differences from *A. cruciatum*. Geographical distribution.

**Yamada Y.** - Notes on Some Japanese *Algœ*. V. [*Algœ quœdam japonicœ. Nota Va*]. 4 pl., Journ. Faculty Sc., Hokkaido Imp. Univ., ser. V, II, 3, 277-285. Sapporo (1933). **b - 1196**

*Bornetella ovalis*, *Caulacanthus Okamurai*, *Chrysymenia pacifica*, *Farlowia irregularis*, *Ptilonia Okadai*. *Phycodrys radicosa* (Okamura) Yamada and Inagaki n. comb.

**Yamada Y.** - On Two Genera of *Algœ* in the Sea of Japan [*Algœ Maris Japonici. Genera duo*]. (In Jap.). 2 figs., Rep. Stat. Algal Res., Hokkaido Imp. Univ., 1, 7-10. (?) (1933). **b - 1197**

*Ptilota Okadai* sp. nov. and *Cymopolia* sp. are described in the present paper.

## PALAEOBIOLOGIA.

**Airaghi Carlo** - Echinidi paleogenici della Sirtica e del Fezzan orientale [*Echinidœ paleogenicœ ad Tripolitaniam et ad* Fezzan *orient. pertinentes*]. 1 tav., Missione Scient. R. Accad. d'Italia a Cufra (1931-IX), III, 61-81. Roma (1934). **b - 1198**

Gli Echinidi terziari della Tripolitania qui descritti ammontano a 24 specie di cui 4 nuove per la scienza. Sono i primi e soli Echinidi terziari che si conoscono finora per la Tripolitania.

**Airoldi M.** - Le Corallinacee del Pleistocene della Somalia [*Corallinaceœ ad pleistocenicam œtatem Somaliœ pertinentes*]. (Paleontologia della Somalia: Fossili raccolti dalle Missioni Stefanini-Paoli (1913) e Stefanini-Puccioni (1924) e da altri). 3 fig., 2 tav., Palaeontogr. Ital., XXXII, suppl. n. 1, 79-96. Siena (1933). **b - 1199**

Studio dei resti di Corallinacee raccolti da G. Stefanini nella panchina pleistocenica di Obbia e dintorni, in Somalia, con parecchie specie nuove dei generi *Archaeolithothamnium*, *Lithothamnium*, *Lithophyllum*.

**Airoldi M.** - Contributo allo studio delle Corallinacee del Terziario Italiano. I: Le Corallinacee dell'Oligocene ligure-piemontese [*Contributio in studium Corallinacearum ad Tertiariam œtatem italicam pertinentium. I: Corallinaceœ œtatis oligocenicœ Ligustico-Pedemontanœ*]. 4 tav., 3 fig., Palaeontogr. Ital., XXXIII, III, 55-83. Siena (1933). **b - 1200**

Descrizione e illustrazione di 23 specie di Corallinacee oligoceniche liguri piemontesi, appartenenti a parecchi generi, taluni dei quali rarissimi allo stato fossile, con diverse specie nuove.

**Basse Eliane** - Paléontologie de Madagascar. XVIII. Faune malacologique du Crétacé supérieur du Sud-Ouest de Madagascar [*Palaeontologia madagascariensis. XVIII. Fauna malacologica ad œtatem cretaceam superiorem pertinens in parte sud-occid. insulœ* Madagascar]. 5 fig., 9 pl., Ann. Paléontol., XXI, 3/4, 91-168. Paris (1933). **b - 1201**

Parenté, distribution géographique et stratigraphique de 66 Pélécypodes et 103 Gastéropodes de la partie sud-ouest de Madagascar. Index des genres et espèces décrits.

**Bieda F.** - Remarques sur la nomenclature et la classification de certaines espèces de Nummulines. IIème partie [*De quibusdam Nummulinis. Considerationes de nomenclatura et systematica. Pars IIa*]. 1 pl., Bull. Int. Acad. Pol. Sc. & Lettres, Cl. Sc. Mathém. et Natur., sér. B: Sc. Natur., 6/8. B. II, 177-187. Cracovie (1933). **b - 1202**

Description de *Nummulina parva* Dow. formes A et B, et *N. praelucasi* formes A et B, provenant de Gan ainsi que des échantillons, se trouvant à Lausanne, qui furent déterminés par de la Harpe comme *N. burdigalensis-garunnensis*.

**Bieda F.** - Remarques sur la nomenclature et la classification de certaines espèces de Nummulines. IIIème partie [*De quibusdam Nummulinis. Considerationes de earum nomenclatura et systematica. Pars IIIa*]. 1 pl., Bull. Int. Acad. Pol. Sc. et Lettres, Cl. Sc. Mathém. et Natur., sér. B: Sc. Natur., 9/10 B. II, 291-303. Cracovie (1934).

(—) C. R. Mensuels Cl. Sc. Mathém. et Natur., 10, 6, Cracovie (1934). **b - 1203**

L'A. démontre que *Nummulina gallensis* Heim et *N. Partschi* de la Harpe sont des espèces différentes; par contre *N. granifera* Douv. est identique à *N. Partschi*. *N. taurica* doit être supprimée.

**Berry W.** - *Fusulina* from Peru and Bolivia [*Fusulinae Peruvienses et Bolivianae*]. 1 pl., Pan-Amer. Geol., LIX, 269-272. (?) (1933). **b - 1204**

Description of three species, two of which are new to science.

**Branson C. C.** - Permian Sharks of Wyoming and of East Greenland [*De Squalis ætatis permianæ ad regiones* Wyoming *et* East Greenland *pertinentibus*]. Science, LXXIX, 2054, 431. New York (1934). **b - 1205**

Discussion as to the synonymy of *Arctacanthus uncinatus* n. gen. n. sp. from East Greenland and *Dolophonodus uncinatus* from the Phosphoria formation of Wyoming.

**Broili F.** - Die Gattung *Pteraspis* in den Hunsrückschiefern [*Pteraspis in stratis ardesianis ad regionem* Hunsrück *pertinentibus*]. 6 Textfig. 1 Taf., Sitzungsber. mathem.-naturw. Abt. Bayer. Akad. Wiss., 1, 1-10. München (1933). **b - 1206**

Nachdem der Vf. eingehend den neuen Befund beschrieben und mit früher bekannten Arten der Gattung *Pteraspis* verglichen hat, schliesst er, dass es sich hier um eine neue Art handelt, *Pteraspis Smith-Woodwardi* sp. n., dadurch gekennzeichnet, dass die Mediandorsalplatte auffallend schlank ist und dass die grösste Breite derselben ungefähr in der Mitte liegt. (S. Rez. Naturwiss., 21, 355, 1934).

**Broili F.** - Ein zweites Exemplar von *Cheloniellon* [*Ch. exemplar alterum*]. 3 Taf., 7 Textfig., Sitzungsber. mathem. naturw. Abt. Bayer. Akad. Wiss., 1, 11-32. München (1933). **b - 1207**

Infolge der ganz isolierten Stellung dieser Art innerhalb der niederen Krebse wird für sie eine eigene Subklasse, *Cheloniellida* mit der einzigen Gattung und Art *Cheloniellon calmani*, aufgestellt. Diagnose, Beziehungen und Vergleiche. (S. Rez. Naturwiss. 21, 355, 1934).

**Broili F.** - Weitere Fischreste aus den Hunsrückschiefern [*Piscium relicta nova in stratis ardesianis regionis* Hunsrück]. 6 Taf., 15 Textfig., Sitzungsber. mathem.-naturw. Abt. Bayer. Akad. Wiss., 2, 269-313. München (1933). **b - 1208**

Bericht über die folgenden in der unterdevonischen Hunsrückschiefer gefundenen Fossilien: *Gemündina stürtzi* Traquair, welche, dem Vf. nach, dem Genus *Asterosteus* ähnlich aber mit ihm nicht identisch ist, *Paraplesiobatis heinrichsi* gen. et spec. nov., *Messariostoma granulosum* gen. et spec. nov. Für jede Form folgen Diagnose und Angabe des Fundortes.

**Broili F.** - Ein Macropetalichthyide aus den Hunsrückschiefern [*Macropetalichthys proveniens a stratis ardesianis regionis* Hunsrück]. 7 Abb., 1 Taf., Sitzungsber. mathem.-naturw. Abt. Bayer. Akad. Wiss., 3, 417-437. München (1933). **b - 1209**

Nach einem eingehenden Studium in Bezug auf das Schädeldach und die Ventralseite des Restes scheint es dem Vf. den Fund mit Vorbehalt als *Macropetalichthys ? prumiensis* E. Kayser zu bezeichnen. Die von vielen Forschern betretene Meinung, dass diese *Macropetalichthyidae* zu den Elasmobranchiern und zwar der Ordnung *Stegoselachii* A. S. Woodward gehöre, findet hier eine ausgezeichnete Bestätigung.

**Bulman M. B. Oliver** - On the Graptolites prepared by Holm. VI. Structural Characters of some *Dictyonema* and *Desmograptus* Species from the Ordovician and Silurian Rocks of Sweden and the Baltic Region [*De Graptolitibus ab* Holm *paratis*]. Ark. f. Zool., XXVI A, 5, 9 pp. Stockholm (1933). **b - 1210**

9 plates without text.

**Bulman M. B. Oliver** - On the Graptolites Prepared by Holm [*De Graptolitibus ab* Holm *paratis*]. 19 figs., 9 pl., Ark. f. Zool., XXVI A, H. 1, 5, 1-52. Stockholm (1934). **b - 1211**

VI. Structural characters of some *Dictyonema* and *Desmograptus* species from the Ordovician and Silurian rocks of Sweden and the East Baltic region. Variation in the structure of *Dictyonema*. Stratigraphical importance of the structural characters of *Dictyonema*. Descriptive section: *D. flabelliforme* f. *typica*, *D. cotyledon* n. sp., *D. dubium* n. sp., *D. rhinanthiforme* n. sp., *D. estlandicum*, n. sp., *D. Wimani* n. sp., *D. Holmi* n. sp., *D. inconstans* n. sp., *D. peltatum* Wiman, *D. cervicorne* Holm, *D.* sp. *a*, ? *D.* sp. *b*, *D.* sp. *c*, ? *D. stolon*; *Desmograptus idoneus* n. sp., ? *D.* sp. *a*.

**Chapman F., Parr W. J. & Collins A. C.** - Tertiary *Foraminifera* of Victoria, Australia. The Balcombian Deposits of Port Phillip, Part III [*Foraminifera tertiaria in* Victoria]. 4 pl., Journ. Linn. Soc. London, Zool., XXXVIII, 553-577. London (1934). **b - 1212**

The present report deals principally with genera formerly assigned to the *Rotaliidae*, but now divided among several new families. Six new species and two new varieties are described.

**Cipolla Francesco** - Briozoi fossili del deserto libico e del Fezzan orientale [*Bryozoa fossilia in deserto Lybico et in* Fezzan *orientali*]. Nota preliminare. Boll. Soc. Sc. Natur. e Econ. di Palermo, XV, 13-16. Palermo (1933). **b - 1213**

L'A. illustra il materiale paleontologico raccolto dalla recente missione Desio nel deserto Libico e nel Fezzan orientale, nel 1931, determinando 12 specie di Briozoi, che per la prima volta vengono illustrati per questa regione.

**Cipolla Francesco** - Il Trias dei dintorni di Palermo. Parte I. La fauna triassica dei calcari delle cave di Bellolampo. Lamellibranchi (Pettinidi) [*Aetas triassica apud Panormum. Pars I$^a$. De Fauna triassica substantiarum calcarearum apud* Bellolampo. *Lamellibranchiata* (*Pectinidæ*)]. 1 tav., Giorn. Sc. Natur. e Econ., XXXVII, 17-32. Palermo (1933). **b - 1214**

L'A. continua lo studio del Trias di Palermo, iniziato da Giovanni Di Stefano e Mariano Gemellaro, con la illustrazione dei Lamellibranchi dei calcari delle cave di Bellolampo.

**Cooper G. Arthur** - Evaluation of internal Characters in the Classification of the *Brachiopoda* [*Aestimatio peculiaritatum internarum in Brachiopodis in classes distribuendis*]. Bull. Geol. Soc. America, XLIV, 1, 193-194. New York (1933). **b - 1215**

**Coryell H. N. & Salmon Eleanor S.** - A Molluscan Faunule from the Pierre Formation in Eastern Montana [*Parva fauna Molluscorum ex formatione* Pierre *nomine in regione* Montana *orient.*]. 13 figs., Amer. Mus. Novit., 746, 1-18. New York (1934). **b - 1216**

The report includes a general summary of the stratigraphy of the Pierre formation. The fossils described consist entirely of *Mollusca*; thirty-five species in all are represented; of these, eight are *Gastropoda*, ten *Cephalopoda*, fifteen *Pelecypoda*, and two *Scaphopoda*. The two new species described are Ammonoid *Cephalopoda*.

**Cottreau J.** - Note sur des Échinides provenant du Crétacé du Damergou (Niger) [*Echinidæ ætatis cretaceæ in regione* Damergou (Niger)]. Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 3, 324-326. Paris (1934). **b - 1217**

Ces Échinides se trouvent dans des couches de passage appartenant soit au Cénomanien inférieur soit au Turonien tout à fait inférieur. Ils se répartissent dans les trois genres suivants: *Diplopodia* M. Coy, *Micropedina* Cott., *Hemiaster* Desor. Leur attribution spécifique demeure provisoire.

**Cushman Joseph A.** - Two New Genera, *Pernerina* and *Hagenowella*, and Their Relationship to other Genera of the *Valvulinidæ* [*Duo nova genera, Pernerina et Hagenowella, eorumque correlationes cum generibus ad familiam « Valvulinidæ » pertinentibus*]. 2 pl., Amer. Journ. Sc., XXVI, 151, 19-26. New Haven, Conn. (1933). **b - 1218**

Description and diagnosis of the two new genera of the peculiar flaring arenaceous *Foraminifera*. Figures of the structures noted in these new genera, and a graphic chart showing the relationships of the genera are given, based upon the subdivision of the peripheral portion of the chamber.

**Cushman Joseph A.** - Relationships and Geologic Distribution of the Genera of the *Valvulinidæ* [*De affinitate et geographica distributione generum ad familiam « Valvulinidæ » pertinentium*]. Contr. Cushman Labor. Foramin. Research, IX, 2, 38-44. Sharon, Mass. (1933). **b - 1219**

Study of the different stages of development. Discussion of the relationships with a table showing the geologic ranges of 26 genera. Corrections of some earlier classifications.

**Cushman Joseph A.** - New American Cretaceous *Foraminifera* [*Foraminifera cretacica nova Americana*]. 3 pl., Contr. Cushman Labor. Foramin. Research, IX, 3, 49-64. Sharon, Mass. (1933). **b - 1220**

Descriptions and illustrations of a number of new species and varieties of *Foraminifera* from the Up. Cretaceous of the Gulf Coastal Plain region, U. S. A. Many of these have a relatively short vertical range in the Amer. Cretaceous and should be found useful as index fossils for their particular portions of the Cretaceous section.

**Cushman Joseph A.** - Post-Cretaceous Occurrence of *Gümbelina* with a Description of a New Species [*Gümbelina postcretacea, cum descriptione novæ cuiusdam speciei*]. 1 pl., Contr. Cushman Labor. Foramin. Res., IX, 3, 64-69. Sharon, Mass. (1933). **b - 1221**

New localities recorded. Description of *Gümbelina goodwini* Cushman & Jarvis ; resemblances.

**Cushman Joseph A.** - Notes on the Genus *Spiroplectoides* and its Species [*De genere « Spiroplectoides » eiusque speciebus*]. 1 pl., Contr. Cushman Labor. Foramin. Res., 143, 37-44. Sharon, Mass. (1934). **b - 1222**

Seven species assigned by the A. to the genus *Spiroplectoides*, 1927, are described and figured in this paper. A list of their localities in the American Cretaceous is given.

**Cushman Joseph A.** - The Generic Position of *Cornuspira cretacea* Reuss [*De nomenclatura speciei « Cornuspira cretacea »* Reuss]. Contr. Cushman Labor. Foramin. Res., 144, 14-47. Sharon, Mass. (1934). **b - 1223**

Basing on the examination of a series of specimens from various European localities the A. comes to the conclusion that the species first named *Operculina cretacea*, after *Cornuspira cretacea* must be transferred to *Ammodiscus* Reuss, 1861.

**Cushman J. A. & Campbell A. S.** - A New *Spiroplectoides* from the Cretaceous of California [*De nova quadam specie ad genus « Spiroplectoides » pertinente in Cretaceo Californiano*]. 1 pl., Contr. Cushman Labor. Foramin. Res., 147, 70-71. Sharon, Mass. (1934). **b - 1224**

Description of the new species *S. californica*.

**Cushman J. A. & Dusenbury A. N.** - Eocene *Foraminifera* of the Poway Conglomerate of California [*Foraminifera eocenica in conglomeratione Californiensi* Poway *nomine*]. 3 pl., Contr. Cushman Labor. Foramin. Res., 145, 51-65. Sharon, Mass. (1934). **b - 1225**

Of the *Foraminifera* found in a deltoid marine conglomerate the majority belongs to *Lagenidae*. Thirty-five species and varieties are described. Four new species are dealt with.

**Cushman J. A. & Ellisor A. C.** - Two New Texas *Foraminifera* [*Foraminifera duo nova in* Texas]. Contr. Cushman Labor. Foramin. Res., 138, 95-96. Sharon, Mass. (1933). **b - 1226**

Description of *Textularia smithvillensis* and *Nonionella cockfieldensis*, both of the Claiborne Eocene.

**Cushman J. A. & Galliher E. W.** - Additional New *Foraminifera* from the Miocene of California [*Foraminifera additicia nova miocenica Californiensia*]. 7 figs., Contr. Cushman Labor. For. Res., X, 141, 24-26. Sharon, Mass. (1934). **b - 1227**

Five new species and two new varieties are described from various localities.

**Cushman J. A. & Garrett J. B., Jr.** - New Species of *Triloculina* from the Claiborne of Louisiana [*Species novæ ad genus « Triloculina » pertinentes a* Claiborne *in* Louisiana]. 1 pl., Contr. Cushman Labor. Foramin. Res., 146, 65-70. Sharon, Mass. (1934). **b - 1228**

Three species are described and figured.

**Cushman J. A. & Jarvis P. W.** - Some Interesting New Uniserial *Foraminifera* from Trinidad [*De notandis novis Foraminiferis uniserialibus, a* Trinidad *provenientibus*]. 1 pl., Contr. Cushman Labor. Foramin. Res., 148, 71-75. Sharon, Mass. (1934). **b - 1229**

Description of three new species and a new variety of *Ellipsonodosaria* and of four new species of *Chrysalogonium*.

**Cushman J. A. & Kleinpell R. M.** - New and Unrecorded *Foraminifera* from the California Miocene [*Foraminifera nova et non memorata ad ætatem miocenicam californianam pertinentia*]. 5 figs., 3 pl., Contr. Cushman Labor. Foramin. Res., X, 140, 1-23. Sharon, Mass. (1934). **b - 1230**

New species and varieties are described and figured.

**Cushman J. A. & Parker F. L.** - Notes on Some of the Earlier Species Originally Described as *Bulimina* [*De veterrimis speciebus quæ ab origine sicut Bulimina descriptæ fuerunt*]. 2 pl., Contr. Cushman Labor. Foramin. Res., 142, 27-36. Sharon, Mass. (1934). **b - 1231**

Revision of species described up to the year 1890. Examination of three collections. The various species belong to several genera : *Bulimina, Buliminella, Arenobulimina, Ataxophragmium* etc.

**Cuvillier J.** - Répartition et valeur stratigraphique de *Nummulites laevigatus* Brug. sp. dans l'Éocène égyptien [*De distributione et æstimatione stratigraphica speciei « Nummulites lævigatus »* Brug. *in Eocene Aegyptiano*]. C. R. Acad. Sc., CXCVIII, 8, 762-763. Paris (1934). **b - 1232**

Gisements égyptiens où a été trouvée cette espèce. En ce qui concerne sa valeur stratigraphique il semble que *N. laevigatus* n'ait fait son apparition dans les eaux egyptiennes de la Mésogée que dans la seconde moitié de la période lutétienne.

**David-Sylvain Élisabeth** - Sur les grands Foraminifères du synclinal de Visso (Apennin central) [*Magna Foraminifera ad synclinalem civitatis* Visso *pertinentia*]. C. R. Acad. Sc., CXCVIII, 19, 1717-1718. Paris (1934). **b - 1233**

Examen des Foraminifères appartenant à ce que les géologues italiens appellent la « Scaglia cinerea », aux silex noirs et aux formations argilo-marneuses qui les surmontent. Ces niveaux représenteraient l'Eocène supérieur, l'Oligocène et le Miocène inférieur.

**De Fiore Otto** - I Molluschi rinvenuti a Pompei. [*De repertis Molluscis Pompeianis*]. Una pagina di etnologia romana. Rend. Accad. Sc. Fis. Matem., Cl. Soc. R. Napoli, ser. IV, III, 5/8, 114-122. Napoli (1933). **b - 1234**

Nel presente studio si determinano ed enumerano 45 specie di Molluschi marini, rappresentati da 459 esemplari, finora rinvenuti a Pompei; se ne ricercano le provenienze, mediterranee ed esotiche, ed i probabili usi.

**Deflandre Georges** - Sur un foraminifère siliceux fossile des diatomites miocènes de Californie: *Silicotextulina diatomitarum* n. g. n. sp. [*Silicotextulina diatomitarum n. g., n. sp., in diatomitis ætatis miocenicæ Californianæ*]. C. R. Acad. Sc., CXCVIII, 16, 1446-1448. Paris (1934). **b - 1235**

Signalisation de la présence de ce foraminifère à test siliceux, trouvé simultanément dans plusieurs diatomites miocènes de Californie. Discussion au sujet de la structure du test de cette espèce, dont ressort la conclusion que *S. diatomitarum* est un foraminifère perforé, à test originellement siliceux, ou peut-être chitino-siliceux.

**Deflandre Georges** - Sur les microfossiles d'origine planctonique, conservés à l'état de matière organique dans les silex de la craie [*Microfossiles planctonici sicut substantia organica in silice cretacea servati*]. 11 fig., C. R. Acad. Sc., CXCIX, 19, 966-968. Paris (1934). **b - 1236**

Recherches préliminaires portées sur des galets de silex du bassin parisien. État de conservation des organismes, et des Dinoflagellés en particulier.

La preuve irréfutable de l'existence de types actuels de Dinoflagellés montre l'origine ancienne et la stabilité de certaines formes, au moins depuis le Secondaire.

**Demanet F.** - Les Brachiopodes du Dinantien de la Belgique. I.er Volume: *Atremata, Neotremata, Protremata* (pars) [*Brachiopoda ad ætatem dinantianam belgicam pertinentia. Vol. Ium: Atremata, Neotremata, Protremata (pars)*]. 17 fig., 10 pl., Mém. Mus. R. Hist. Natur. Belgique, 61, 1-116. Bruxelles (1934). **b - 1237**

Liste des auteurs cités. Description des espèces. Paléontologie stratigraphique. Paléontologie systématique. Liste alphabétique des espèces décrites ou citées.

**Desio Ardito** - Lamellibranchi paleogenici della Sirtica e del Fezzan orientale [*Lamellibranchiata palæogenica in Tripolitania et* Fezzan *orient.*]. 8 tav., Miss. Scient. R. Accad. d'Italia a Cufra (1931-IX), III, 83-130. Roma (1934). **b - 1238**

Il materiale paleontologico descritto comprende i Lamellibranchi eocenici ed oligocenici raccolti in Libia dall'A. nel 1930-31. Tutte le forme descritte sono nuove per la regione.

**Di Salvo Giovanni** - I Crostacei del terziario inferiore della provincia di Palermo [*Crustacea ad Tertiarium inferius provinciæ panormitanæ pertinentia*]. 2 tav., Giorn. Sc. Natur. Econ., XXXVI, 3, 1-48. Palermo (1933). **b - 1239**

Dopo un breve accenno di quanto si è pubblicato sui Crostacei della fauna fossile terziaria in Sicilia, l'A. che ha ripreso lo studio di questi tipici resti fossili; oltre a brevi riferimenti sui giacimenti già conosciuti, dà notizia di nuove località fossilifere e di nuove forme fossili. Le forme studiate sono 22, di cui 14 nuove per la Sicilia, per la maggior parte riferibili all'Eocene medio (Luteziano) o alla parte inferiore dell'Eocene sup. (Priaboniano). Dall'esame di esse appaiono chiari rapporti tra la fauna di Crostacei terziari di Sicilia e le coeve faune del Vicentino e Veronese e dell'Ungheria.

**Eguchi Motoki** - On a New Lower Jurassic Coral, *Isastraea Yabei* n. sp., from Hosoura near Sidugawa-Mati, Motoyosi-Gun, Rikuzen Province, Japan [*De novo quodam corallo ad ætatem giurassicam inferiorem pertinente*]. 2 pl., Jap. Journ. Geol. & Geogr., Trans., XI, 3/4, 157-160. Tokyo (1934). **b - 1240**

History of the discovery of the new species dealt with by the author; description and diagnosis of *Isastraea* (*Latimaeandra*) *Yabei* n. sp.

**Ellisor A. C.** - Jackson Group of Formations in Texas with Notes on Frio and Vicksburg [*Formationes regionis* Texas *quæ a* Jackson *nomen capiunt. Adiunguntur notæ de* Frio *et* Vicksburg]. 8 figs., 7 pl., Bull. Amer. Assoc. Petroleum Geol., XVII, 11, 1293-1350. (?) (1933). **b - 1241**

List of the *Foraminifera* found in the various formations of the Upper Eocene of Texas.

**Floridia G. B.** - Sopra alcune rocce nummulitiche del Gebel cirenaico [*De quibusdam saxis nummuliticis in* Gebel *cyrenaico*]. 1 fig., Miss. Scient. R. Accad. d'Ital. a Cufra (1931-IX), III, 31-41. Roma (1934). **b - 1242**

Esame dei campioni di calcari nummulitici raccolti nelle varie località della Cirenaica, e loro caratteristiche geo-paleontologiche.

**Floridia G. B.** - Sull'età dei calcari a *Chlamys cyrenaica* (Newton) dei dintorni di Derna [*De calcaribus apud civitatem* Derna *quae continent* «*Chlamys cyrenaica*». *Quaestio de aetate*]. 2 fig., Rend. R. Ist. Lomb. Sc. e Lett., ser. II, LXVII, 11/15, 525-528. Milano (1934). **b - 1243**

L'Autore, eseguito uno studio sui Foraminiferi contenuti in alcuni campioni di calcari a *Chlamys cyrenaica* (Newton) provenienti dai dintorni di Derna, conclude che i materiali esaminati appartengono all'Eocene superiore.

**Font J. M. i Solé Sabarís L.** - Addicions a la fauna pliocénica de Papiol [*Additiones ad faunam pliocenicam regionis* Papiol]. Bull. Instit. Cat. Hist. Natur., XXXI, 4. Barcelona (1933). **b - 1244**

Los autores estudian unos fósiles de los yacimientos pliocenos de Papiol, entre los cuales destaca un molusco lamelibranquio, género *Gastrochaena*.

**Fontana Zanco Fanny** - Nuove osservazioni sul piano Tirrenico nei dintorni di Cagliari [*De observatis depositis quaternariis marinis apud Caralim*]. Rend. Sem. Fac. Sc., R. Univ. Cagliari, III, 3, 116-125. Cagliari (1933). **b - 1245**

Descrizione di alcuni depositi quaternari marini dei dintorni di Cagliari. Le forme raccolte e determinate dimostrano trattarsi di materiale paleontologico tutt'ora rappresentato fra le forme viventi nel Mediterraneo. Il Quaternario marino dei dintorni di Cagliari è da ascriversi tutto al Piano Tirrenico.

**Fredericks George** - The Permian Fauna of the Kanin Peninsula [*De fauna permiana in paeninsula* Kanin] (In Russ., Engl. Rés.). 2 tabl., 5 pl., Trans. Arct. Inst., XIII, 5-42. Leningrad (1934). **b - 1246**

Description of the fauna collected by M. Edemsky in 1929 at the Kanin Peninsula from deposits belonging to the

Permian. Among the listed and described species the following ones are new to science: *Aviculopecten orientalis* sp. nov., *Aviculopecten* sp. nov. cf. *rossiensis* Netsch, *Conocardium kaninense* sp. nov., *Sowerbina notteiensis* sp. nov., *Ruthenia granulifera* Toula, *R. granulifera typica* Frcks, *R. granulifera gibbosa* nom. nov., *R. granulifera spitzbergensis* nom. nov., *Composita caninense* sp. nov., *Camarophoria edemskii* sp. nov. Some remarks on the Permian deposits of arctic regions complete the paper.

**Frost G. Allan** - Otoliths of Fishes from the Lower Tertiary Formations of Southern England. I. *Isospondyli, Apodes, Berycomorphi* [*Otolithi Piscium in stratis Tertiarii inferioris Angliae merid. I: Isospondyli, Apodes, Berycomorphi*]. 1 pl., Ann. and Magaz. Natur. Hist., XII, 70, 387-396. London (1933). **b - 1247**

The following spp. are new: *Otolithus (Elops) eocenicus, O. (Argentina) erectus, O. (Clupeidarum) altus, O. (C.) dilatus, O. (Albula) bartonensis, O. (Congridarum) bartonensis, O. (C.) ovatus, O. (C.) websteri, O. (C.) eocenicus, O. (Congridarum) attenuatus, O. (Ophichthys) acutus, O. (Muraenesox) minimus, O. (Congridarum) furcatus, O. (Myrus) caudatus, O. (Polymixia) eocenicus, O. (Beryx) eocenicus.*

**Frost G. Allan** - Otoliths of Fishes from the Tertiary Formations of New Zealand [*Otolithi Piscium in stratis Tertiarii Novæ Zelandiæ*]. 2 pl., Trans. & Proc. New Zealand Inst., LXIII, 2, 133-141. Wellington, N. Z. (1933). **b - 1248**

All except 3 of the 25 species are new. The types are well preserved, and in many cases strikingly like otoliths of present-day New Zealand fishes.

**Galloway J. J. & Spock Erskine L.** - Pennsylvanian *Foraminifera* from Mongolia. Part I. Field Relations (by Spock Erskine L.) Part II. Descriptions of *Foraminifera* (by Galloway J. J.) [*Foraminifera pennsylvaniana Mongoliæ. Pars Ia: Correlationes inter species. Pars IIa: Descriptio Foraminiferorum*]. 1 fig., 1 pl., Amer. Mus. Novit., 658, 1-6. New York (1933). **b - 1249**

Ancient limestones of Central Inner Mongolia. Paleozoic limestones of Western Mongolia. Age of the rock containing the *Foraminifera* described. Description of 6 species, of which *Climacammina* sp. is new.

**Gerth H.** - Neue Beiträge zur Kenntnis der Korallenfauna des Tertiärs von Java. 1. Die Korallen des Eocaen und des älteren Neogen [*Contributiones novæ ad Corallia ætatis Tertiariæ in* Java *cognoscenda. I. Corallia ex eocene et neogene vetere*]. 5 Taf., 45 S., Wetensch. Meded. Dienst Mijnbouw. N. I., 25. Bandoeng (1933). **b - 1250**

Die folgenden Arten sind neu: *Sphenotrochus javanus, Rhabdophyllia sundaica, Trochosmilia progoensis, Cerathophyllia cristata, Cyphastraea progoënsis, Cyathomorpha irregularis, Progonopora variabilis, Acropsammia sokkohensis, Javanopora ramosa, Leptoria nawoenganensis, Cyphastraea rembangensis, Confusastraea progoensis, Leptoseris densicostata, Indosmilia rembangensis.*

**Gignoux Maurice** - Les Oursins réguliers fossiles. Evolution et classification [*Echini regulares fossiles. De eorum evolutione et systematica*]. 35 fig., 3 tabl., Trav. Labor. Géol., XVII, 2, 1-125. Grenoble (1933). **b - 1251**

Structure du squelette. Description d'un type fondamental d'Oursin, le *Cidaris*. Les Oursins primaires. Les Cidaridés. Les Glyphostomes: Principales modifications survenant chez les Glyphostomes à partir de *Cidaris*; principes de classification des Glyphostomes; étude des genres de Glyphostomes. Index alphabétique de noms de familles, genres, sous-genres.

**Glaessner Martin F.** - New Tertiary Crabs in the Collection of the British Museum [*Cancri novi ætatis Tertiariæ in collectione ad* British Museum *pertinente*]. 1 fig., 6 pl., Ann. & Magaz. Natur. Hist., XII, 67, 1-28. London (1933). **b - 1252**

The new species are: *Neptunus (Achelous) withersi, Heteropanope ? wylliei, Potamon (P.) sivalense, Lobocarcinus indicus, Goniocypoda sindensis, Scylla ozawai, Archaeogeryon latus, Pseudorhombila patagonica.* Descriptions, taxonomic and distributional data, as well as a short discussion of the fauna of each region. Several known species are emended.

**Glibert Maxime** - Monographie de la faune malacologique du Bruxellien des environs de Bruxelles [*Monographia faunæ malacologicæ ætatis Bruxellensis apud Bruxellas*]. 11 pl., Mém. Mus. R. Hist. Natur. Belgique, 53, 1-215. Bruxelles (1933). **b - 1253**

Description des espèces appartenant aux classes suivantes: *Gastropoda, Acephala, Cephalopoda.* Carte des gisements. Tableau de répartition par gisements. Commentaires sur les faunes. Index bibliographique. Table alphabétique des familles, genres, sous-genres et sections. Index des noms d'espèces.

**Gubler J.** - La valeur stratigraphique des Fusulinidés du Permien [*Fusulinidæ ætatis Permianæ. Aestimatio stratigraphica*]. C. R. Acad. Sc., CXCVIII, 4, 381-383. Paris (1934). **b - 1254**

L'A. s'occupe des Fusulinidés du Permien des calcaires anthracolitiques d'Extrême-Orient et en particulier des deux problèmes stratigraphiques qu'ils soulèvent: dans quelle mesure ces Fusulinidés peuvent-ils, à eux seuls, caractériser des horizons distincts et quelle est leur répartition dans le Permien.

**Gugenberger Odomar** - Beiträge zur Kenntnis der *Cardita* - Schichten von Launsdorf (Kärnten). IV. Lamellibranchiaten [*Contributio in cognoscendos stratus qui continent « Cardita » in* Launsdorf (Kärnten). *IV. Lamellibranchiata*]. Anz. Akad. Wiss., Mathem. naturw. Kl., LXXI, 4, 45-49. Wien (1934). **b - 1255**

Bericht von Dr. G. Geyer über das oben angegebene Werk. Zur Paläontologie und Stratigraphie. Angabe neuer Arten und Varietäten.

**Gugenberger Odomar** - Die *Cardita*-Schichten von Launsdorf in Mittelkärnten und ihre Fauna. III. Scaphopoden. IV. Cephalopoden [*De stratis qui continent « Cardita » in* Launsdorf, Kärnten *centrali.* III. *Scaphopoda.* IV. *Cephalopoda*]. Sitz. Ber. Akad. Wiss., Abt. 1, CXLIII, 1/2, 41-59. Wien (1934). **b - 1256**

Die folgenden Formen sind als neu beschrieben: (*Scaphopoda*) *Dentalium arctoides* n. sp., *D. a.* var. *multicostata* nov. var., *D. Gallensteini.* n. sp., *D. herritschi* n. sp., *D. Kahleri* n. sp., *D. Schafferi* n. sp., (*Cephalopoda*) *Sirenites Collignoni* n. sp., *Trachyceras* (*Protrachyceras*) n. sp. ind. Bemerkungen über die Scaphopoden. Anhang (Conularien und hyolithenähnliche Gebilde).

**Hanzawa Shôshirô** - On a *Neoschwagerina*-Limestone from Okinawa-jima, the Riukiu (Loochoo) Islands [*De calcare quodam quod continent « Neoschwagerina » ex* Okinawa-jima *in Insulis* Riukiu]. 1 map, 1 pl., Jap. Journ. Geol. & Geogr., Trans., X, 3/4, 107-110. Tokyo (1933). **b - 1257**

The discovery of a *Neoschwagerina* bed from Okinawa-jima sufficiently proves the Upper Permian age of the limestone.

**Hayasaka I.** - On the Carboniferous Brachiopod Fauna from the Nabeyama Region, Totigi Prefecture, Japan [*Brachiopoda carbonifera in re-*

*gione* Nabeyama, *Japonia*]. 12 pl., 12 text-figs., Mem. Fac. Sc. & Agricult., Taihoku Imp. Univ., VI, 2, (Geol. N. 3), 44 pp. Taihoku (1933). **b - 1258**

Description of a small Permian assemblage of Brachiopods from Japan, including 12 forms (9 specifically named and 7 new) distributed in 10 genera. The greatest interest in this fauna lies in the gigantic size of some of the described species.

**Heritsch Franz** - Notes on *Chaetetes milleporaceus* M. E. H. [*De specie «Chaetetes milleporaceus»* M. E. H.]. 4 figs., Amer. Journ. Sc., XXV, 147, 257-260. New Haven, Conn. (1933). **b - 1259**

Brief description of a very well-preserved specimen of a new species of *Chaetetes*, *Ch. milleporaceus* from the Coal Measures of Peoria County, Illinois, from the collection of the Geological Department of the University of Graz.

**Hertlein Leo George** - A New Gryphaeoid Oyster from the Eocene of California [*De quadam nova ostrea in Eocene Californiano*]. 2 figs., Trans. San Diego Soc. Natur. Hist., VII, 22, 277-280. (1933). **b - 1260**

*Ostrea haleyi.*

**Hickson S. J.** - Systematic Position of Stromatoporoids [*Stromatoporoidea eorumque systematica*]. Quart. Journ. Microscop. Sc., LXXVI, 3, London (1934). **b - 1261**

Different hypotheses of various authors as to the systematic range of *Stromatoporoidea*. Detailed description of two specimens of *Gypsina*. The A. concludes that they were allied to recent *Foraminifera*.

**Howe Marshall A.** - Eocene Marine *Algæ* (*Lithothamnieae*) from the Sierra Blanca Limestone [*Lithothamnieæ eocenicæ e calcare regionis* Sierra Blanca]. 5 pl., Bull. Geol. Soc. America, XLV, 507-518. New York (1934). **b - 1262**

*Mesophyllum Schenckii, Archaeolithothamnium Keenani, Lithothamnium laminosum, Lithophyllum Sierrae-Blancae.*

**Huang T. K.** - Late Permian Brachiopoda of Southwestern China [*Brachiopoda ætatis Permianæ inferioris in Sinensi regione sud-orient.*]. 11 pl., Geol. Surv. China, Palaeontol. Sinica, Ser. B, IX, 2, 131 pp. Peking (1933). **b - 1263**

Continuation of the description of late Permian Brachiopods begun in the part I, dealing with 66 forms, 44 of which are named specifically and 22 of which are new. In a supplement 8 other old species are discussed.

**Huddle J. W.** - Marine Fossils from the Top of the New Albany Shale of Indiana [*Fossilia marina ad superiorem partem formationis in regione* New Albany *pertinentia*]. 2 pl., Amer. Journ. Sc., XXV, 148, 303-314. New Haven, Conn. (1933). **b - 1264**

Marine Invertebrates which indicate a Devonian age for the entire formation have been found recently in the top of the New Albany shale in Indiana. The fauna consists of eight Brachiopods and one gastropod. The entire fauna is figured and six Brachiopods are described.

**Israelsky Merle C.** - A New Species of Echinoid from Tamaulipas, Mexico [*Echinoidea. Species nova e* Tamaulipas *a regione Mexicana provenientia*]. 4 figs., Trans. San Diego Soc. Natur. Hist., VII, 23, 275-276. (1933). **b - 1265**

*Oligopygus putnami*, Upper Eocene.

**Jakovlev N. N.** - Deux Crinoïdes du Permien Supérieur de la Transcaucasie [*Crinoidea duo ætatis permianicæ superioris in Transcaucasia*] (En russe). 1 pl., Bull. Acad. Sc. U. R. S. S., Cl. Sc. Mathém. & Natur., 7, 975-977. Léningrad (1933). **b - 1266**

Description de deux espèces nouvelles de Crinoïdes découvertes dans la vallée du fleuve Arax (Transcaucasie) : *Erisocrinus araxensis* n. sp. et *Spaniocrinus transcaucasicus* n. sp. Cette découverte représente le premier cas donnant la possibilité de déterminer les genres des Crinoïdes marins dont jusqu'aujourd'hui on n'a pu trouver au Caucase que des restes informes et dans un mauvais état de conservation.

**Jakovlev N. N.** - Un graptolithe planctonique du Kasakstan [*De graptolitho quodam planctonico in* Kasakstan] (En russe). 1 fig., Bull. Acad. Sc. U. R. S. S., Cl. Sc. Mathém. & Natur., 7, 979-981. Léningrad (1933). **b - 1267**

Description et diagnose de *Planctograptus rastritoides* gen. n., sp. n. découvert en 1931 dans des couches, qui semblent appartenir au Silurien Supérieur.

**Kaufmann Rudolf** - Variationsstatistische Untersuchungen über die « Artabwandlung » und « Artumbildung » an der Oberkambrischen Trilobitengattung *Olenus* Dalm. [*Inquisitiones statisticæ in deviationes et transformationes specierum generis « Olenus* Dalm. » *ad ætatem Cambrianam superiorem pertinentis*]. Abh. Geol. Paläontol. Inst., 10, 1-54. Greifswald (1933). **b - 1268**

Spezifische und ontogenetische Studie des im freien gesammelten Materials an Hand der Vermessung aller Glieder der vorhandenen Spezimina mit dem Ziele die genetische und phylogenetische Entwicklung der Arten der Oberkambrischen Trilobitengattung *Olenus* Dalm. von einer Zone zur anderen zu verfolgen.

**Kirk Edwin** - *Syndetocrinus*, a New Crinoid Genus from the Silurian of Canada [*Syndetocrinus, genus novum ex Siluriano canadensi*]. 8 figs. on pl., Amer. Journ. Sc., XXVI, 153, 344-354. New Haven, Conn. (1933). **b - 1269**

The author has had for study a very interesting crinoid theca from the Silurian of Port Daniel, Quebec, and another specimen congeneric with the first from New Mexico. The specimens studied prove to represent a new genus referable to *Crotalocrinidae*, which is described in the present paper as *Syndetocrinus*. The two specimens differ so widely in structure as to make necessary to refer them to distinct species, which are described by the author, as *Syndetocrinus dartae* and *S. northropi*.

**Kirk Edwin** - *Corynecrinus*, a New Devonian Crinoid Genus [*Corynecrinus, genus novum devonianum*]. 1 pl., Proc. U. S. Nat. Mus., LXXXIII, 2972, 1-7. Washington, D. C. (1934). **b - 1270**

The crinoid proves to have structural features of considerable interest, and its relationship seems to be nearer certain European Devonian forms than any otherwise known in America. Diagnosis of the new genus and the new species *C. Romingeri*.

**Klinghardt F.** - Der innere Aufbau von Versteinerungen [*Structura interna fossilium*]. 7 Abb., 3 Taf., Sitz. Ber. Ges. Naturf. Freunde zu Berlin, Januar-März, 1-22. Berlin (1933). **b - 1271**

Das Ziel der Arbeit. Präparationsmethoden für : 1. Wirbellose : Seeigel (*Hemipneustes radiatus* Lamarck) ; Schlangen und Seesterne (*Inocerames involutus* Sowerby, *I. lingua* Goldfuss, *I. Koeneni* G. Müller ; Muscheln (*Avicula macroptera* Lamarck) ; Rudisten ; Tintenfische. A. Die Behandlung im Steinbruch. B. Behandlungen in den Sammlungen. (*Sepia officinalis, Hippurites* (*Vaccinites*) *cornuvaccinum* Bronn). II. Wirbeltiere.

**Knight J. Brookes** - *Littorina irrorata*, a Post-Pleistocene Fossil of Connecticut [*Littorina irrorata, fossilis post-pliocenicus e* Connecticut].

Amer. Journ. Sc., XXVI, 152, 130-133. New Haven, Conn. (1933). **b - 1272**

After a brief summary of the literature dealing with *L. irrorata* the author gives notice of the finding of this species as an abundant element of a post-pleistocenic fossil fauna found underlying a salt marsh in an exposed cove near New Haven, Conn. Two interpretations of the presence of the shell in the above deposits. Hypothesis concerned with the age of the deposits.

**Kobayashi Teiichi** - A Few Ordovician Brachiopods from Manchuria and Chosen, and a New Species of *Conchostraca* from the Basal Ordovician of Manchuria [*Brachiopoda quædam ordoviciana ad regiones* Manchuria *et* Chosen *pertinentia : Species nova ad Conchostraca pertinens proveniens ab ordoviciano basali Manciuriæ*]. 1 pl., 1 fig., Jap. Journ. Geol. & Geogr., Trans. XI, 3/4, 161-169. Tokyo (1934). **b - 1273**

List of several species of Brachiopods known from various horizons and localities of South Manchuria and an attempt to define their generic position. Description and diagnosis of *Synthrophinella* Ulrich and Cooper, n. gen., *S. typica* Ulrich & Cooper, n. sp., *S. elliptica* Kobayashi n. sp., *S. deltoides* Kobayashi n. sp., Genus *Pomatotrema* Ulrich & Cooper, *P. shinsoensis* Kobayashi n. sp., *Strophomena* sp. aff. *S. incurvata* (Shephard). Description of *Aluta chiushuensis* n. sp., a new species of *Conchostraca* remnant of Cambrian life, which has persisted into the basal Ordovician.

**Kovacs Lajos** - Einige Mittelliassische Ammonitarten aus dem nordöstlichen Bakony [*Ammonoidea ætatis mediae liassicæ in* Bakony *nord-occid.*]. (Ungar. u. Dtsch. Text). 3 Abb., Földtany Közlöny (Geol. Mitt.), LXII, 1/12, 41-56. Budapest (1933). **b - 1274**

Unter Beziehung auf seine früheren Aufsätze gibt der Vf. einen kurzen Ueberblick der verschiedenen Schichten des nördlichen Bakony, und zwar der Zone des *Psiloceras planorbis*, der Zone der *Sclotheimia angulata*, der Zone des *Arietites Bucklandi*, der Zone des *Amaltheus margaritatus* und der Zone des *Amaltheus spinatus* sowie, unter Vergleich mit anderen Formen, eine eingehende Beschreibung der folgenden aus der letzten Zone stammenden Arten : *Rhacophyllites bucovinicus* Uhl. var. *hungarica* nov. var., *Phylloceras Bonarellii* Bett. var. *anatolica* Meist. em. Gug. und *Lytoceras Francisci* Opp. var. *baconica* nov. var.

**Kutassy A.** - *Cephalopoda triadica*, II. Fossilium Catalogus, I, Animalia. LVI, 1/4, 371-832, W. Junk. Berlin (1933). **b - 1275**

Dieser Teil bildet eine Fortsetzung der von C. Diener bearbeiteten und 1915 erschienenen ersten Lieferung. Alphabetisches Verzeichnis aller Cephalopodengattungen und- arten, die seit Herausgabe des ersten Teiles neu veröffentlicht bzw. seinerseit von C. Diener übersehen worden sind. 310 Genera und Subgenera mit 3598 Arten sind hier berücksichtigt mit Angaben über den Typus, die typische Lokalität, Verbreitung, Lebenszeit usw.

**Kutassy A.** - Die Fauna des Norischen Dachsteinkalkes von St. Anna bei Neumarktl (Oberkrain) [*De fauna calcaris in civitate* St. Anna *apud* Neumarktl]. 4 Taf., Földtani Közlöny (Geol. Mitt.), LXIV, 4/6, 65-80. Budapest (1934). **b - 1276**

1. Teil *Ammonoidea* und *Gastropoda*. Von den beschriebenen Formen sind die folgenden neu : *Arcestes* (*Stenarcestes*) *noricus* nov. sp., *Scurria triadica*, n. sp., *Patella trauthi* n. sp., *Capulus austriacus* n. sp., *Worthenia* sp. indet., *Stuorella convexa* n. sp., *Dicosmos schafferi* n. sp., *Fedaiella* oder *Marmolatella* sp. ind., *Seisia* n. gen., *Seisia blaschkei* n. sp., *Parangularia* n. gen., *P. hungarica* n. sp.

**Lecompte M.** - Le genre *Alveolites* Lamarck dans le Dévonien Moyen et Supérieur de l'Ardenne [*Genus Alveolites* Lamarck *in Devoniano medio et superiori regionis* Ardenne]. 4 pl., Mém. Mus. R. Hist. Natur. Belgique, 55, 1-50. Bruxelles (1933). **b - 1277**

Avant-propos par M. Maillieux. Introduction. Le genre *Alveolites* Lamarck : *A. suborbicularis*, *A. Labechei*, *A. compressa*, *A. megastomus*, *A. Maillieuxi*, n. sp., *A. M.* var. *cavernosa*, n. var., *A. multiperforatus* n. sp., *A. tenuissimus* n. sp., *A. ramosa*, *A. Salei* n. sp.

**Lemoine P. & Mengaud L.** - Algues calcaires de l'Eocène de la Province de Santander (Espagne) [*Algae calcareæ eocenicæ in provincia* Santander (*Hispania*)]. 6 fig., Bull. Soc. Hist. Natur., LXVI, 1. Toulouse (1934). **b - 1278**

*Lithothamnium cantabricum*, *Lithophyllum Mengaudi*, *L. quadrangulum* et *Fania Mengaudi*.

**Leonardi P.** - Fauna malacologica della Barma grande di Grimaldi [*De fauna malacologica ad regionem* « Barma grande di Grimaldi » *pertinens*]. (Scavi dell' Istituto Italiano di Paleontologia Umana), Atti Soc. Ital. Progr. Sc., XXII^a^ Riunione (Bari, 12-18 ott. 1933), III, 111-112. Roma (1934). **b - 1279**

La fauna della formazione marina della Barma grande nella quasi totalità è costituita da forme tuttora viventi nel Mediterraneo ; non mancano tuttavia numerose serie di tipo caldo, attualmente non viventi nel Mediterraneo. Nuove varietà : *Morio echinopora* L. var. *Coëni* e *Loripes lacteus* L. var. *Battagliai*.

**Maury Carlotta Joaquina** - *Lovenilampas*, a New Echinoidean Genus from the Cretaceous of Brazil [*Lovenilampas, genus novum e Cretaceo brasiliensi*]. 1 fig., Amer. Mus. Novit., 744, 1-5. New York (1934). **b - 1280**

Class *Echinoidea*, order *Exocycloida*, suborder *Cassidulina*, family *Cassidulidae*, *Lovenilampas* gen. nov., *L. baixadoleitensis*.

**Maury Carlotta Joaquina** - Fossil *Invertebrata* from Northeastern Brazil [*Invertebrata fossilia e Brasilia nord-orient.*]. 11 pl., Bull. Amer. Mus. Natur. Hist., LXVII, 4, 123-179. New York (1934). **b - 1281**

Stratigraphic results of the study of the Brazilian collection. Discussion of the fossils by groups. 1) The Marine Cretaceous *Mollusca* and *Echinoidea* from various localities in the dolomitic limestone belt of Rio Grande do Norte ; 2) The Pliocene to Recent fossils of the Stone Reef, Areia Preta, Natal, Rio Grande do Norte ; 3) The Recent to Pliocene fossils of the Coral Reef, Areia Preta, Natal, Rio Grande do Norte ; 4) The Recent to Pleistocene fossils of the Soft Sandstone and Coquina at Thibau, Northwest of Mossorò, Rio Grande do Norte. Two other chapters deal with terrestrial and freshwater fossils.

**Miller A. K.** - A Mixochoanitic Cephalopod from Iowa [*De cephalopodo quodam ex* Iowa]. 1 pl., 5 figs., Amer. Journ. Sc., XXVI, 152, 178-182. New Haven, Conn. (1933). **b - 1282**

After a brief summary of the characteristics of the mixochoanitic Cephalopods which constitute a small compact group of Nautiloids, the author gives the diagnosis of *Schuchertoceras Thomasi*, n. sp., which possesses the characteristics of the genus *Schuchertoceras* but is quite distinct from all previously described species.

**Miller A. K.** - Age of the Permian Limestones in Sicily [*De calcare permianico eiusque ætas in Sicilia*]. 1 table, Amer. Journ. Sc., XXVI, 154, 409-427. New Haven, Conn. (1933). **b - 1283**

Results of a study of marine Permian limestone which occurs in the valley of the Sosio River, in the southern part of the province of Palermo. After a summary of previous work performed in the locality, the author formulates some considerations as to the age of the Sosio beds on hand of the Sosio Ammonoids and Nautiloids, which he compares with other permian Ammonoids and Nautiloids described by other scholars in other parts of the world. He concludes from the evidence collected that it seems clear that the permian Sosio beds represent a paleological zone slightly but distinctly younger than the cephalopod-bearing sandstone of the Artinsk group of the Ural Mountains.

**Miller A. K.** - The Carboniferous Ammonoid Genus *Dryochoceras*, a Synonym of *Sagittoceras* [*Genus carboniferum «Dryochoceras», synonymum generis «Sagittoceras»*]. 6 figs., Amer. Jour. Sc., XXVIII 163, 31-36. New Haven, Conn. (1934). **b - 1284**

Referring to a publication entitled « Geology of the Stonewall quadrangle Oklahoma » (Bur. Geol., Bull. 2, Oklahoma, 1924) the A. concludes that *Dryochoceras* Morgan is to be suppressed as a synonym of *Sagittoceras* Hind ; that *Sagittoceras* is known to be represented in only the Caney shale of Oklahoma and the Viséan of England and Germany and probably Czechoslovakia and France ; and that *Sagittoceras* is closely related to *Gurleyoceras*, *Milleroceras*, and *Goniloboceras*.

**Miller A. K. & Warren P. S.** - A *Propinacoceras* from North America [*Propinacoceras americanum n. sp. ex America septentrionali*]. 4 figs., Amer. Journ. Sc., XXVI, 153, 295-299. New Haven, Conn. (1933). **b - 1285**

After a brief summary of our knowledge of the genus *Propinacoceras*, the author gives a description of the only representative of *Propinacoceras* known from America, which he proposes to call *P. americanum*, n. sp.

**Monsen Astrid** - Meddelelser om nogen skjellforekomster fra Nordre Helgeland [*Relatio de Molluscis inventis in* Helgeland *sept.*] (Norw. Text., Dtsch. Rés.). Tab., Bergens Mus. Årb., Naturv. r., H. 1, 7, 1-18. Bergen (1934). **b - 1286**

Das hier untersuchte Material besteht hauptsächlich aus sandigem Strandkies (*Mytilus*- Grus) und *Lithothamnium*- Bänken sowie lusitanischen und lusitanisch- borealen Arten. Tabellarische Uebersicht der gefundenen Arten.

**Montanaro E.** - Faune attinologiche quaternarie dell'Africa Orientale [*Corallia quaternaria in Africa orient.*]. Atti Soc. Ital. Progr. Sc. (XXIª Riun., Roma, 9-15 ottobre 1932), V, 124-131. Roma (1933). **b - 1287**

Descrizione di 58 forme di Coralli pleistocenici est-africani, di cui 18 citate per la prima volta dal Pleistocene del Mar Rosso e 6 ritenute nuove per la scienza. Esame comparativo di differenti collezioni. Paragone con le faune recenti. Variazione nella distribuzione geografica di alcune specie dal Terziario all'epoca attuale.

**Montanaro E.** - Faune attinologiche pliopleistoceniche dell'Africa Orientale [*De fauna pliopleistocenica Coralliorum in Africa Orient.*]. 5 tav., Palaeontogr. Ital., XXXIII, III, 141-209. Siena (1933). **b - 1288**

Sono qui descritte e illustrate 58 specie o varietà di Coralli plio-pleistocenici, provenienti da vari giacimenti delle coste del Mar Rosso e dell'Oceano Indiano, da Suez a Port Amelia, la maggior parte dei quali non erano stati esplorati dal punto di vista delle faune attinologiche. Di queste specie 18 sono citate per la prima volta dal Pleistocene del Mar Rosso e 6 con ritenute nuove per la scienza. Seguono considerazioni sulla distribuzione delle faune e su vari esempi di restrizione dell'habitat delle specie nel corso dei tempi.

**Montanaro E.** - Primo rinvenimento di Odontoceto nello « Schlier » dell'Appennino Modenese-Reggiano [*Inventio prior Odontoceti in strato Schlieriano Montium Appenninorum in regione Mutinensi-Regiensi*]. 1 tav., Riv. Ital. Paleontol., XL, 1/2, 20-28. Pavia (1934). **b - 1289**

L'A. rende noto il rinvenimento di un Odontoceto (1928) nei depositi dell'Appennino modenese-reggiano, e ne illustra i resti con diagnosi e confronti con tipi affini, e considera l'interesse che ogni nuova traccia di cetaceo possibile può destare, dal punto di vista paleontologico-filogenetico.

**Morellet L. & J.** - Coupe dans le Bartonien de Lévignen (Oise) [*Sectio quaedam in Bartoniano e* Lévignen (Oise)]. Bull. Mus. Nat. Hist. Natur., 2e sér., V, 3, 253-256. Paris (1933). **b - 1290**

Liste des couches d'une coupe à peu près complète du Bartonien de cette localité. Considérations particulières sur certaines des couches et précisément : la couche à *Nummulites variolarius ;* une couche laguna-lacustre ; une couche lagunaire ; une couche baptisée « niveau supérieur à Cérithes » etc.

**Morellet L. & J.** - Le Bartonien de Hadancourt-le-Haut-Clocher (Oise) [*Bartonianum in* Hadancourt-le-Haut-Clocher]. Bull. Mus. Nat. Hist. Natur., VI, 1, 147-149. Paris (1934). **b - 1291**

Succession stratigraphique et fossiles.

**Mortensen Th.** - On the « Manatee » of St. Helena [*Quaestio de* « Manatee » *ex insulae Sct. Helenae*]. 2 figs., Vidensk. Medd. Dansk naturhist. Foren. i. København, XCVII, 1-9. København (1933-34). **b - 1292**

Critical review of the works concerning the supposed presence of the « Manatee » on St. Helena and its criterion for the Archhelenis-theory of a former land-connection between S. America and Africa. According to the A. this « Manatee » seems to have been the Cape Sea-Lion, *Arctocephalus antarcticus* (Thunberg).

**Muellerried Federico K. G.** - Estudios paleontológicos y estratigráficos en la región de Tehuacán, Puebla. (Conclusión) [*Studia palæontologica et stratigraphica in regione* Tehuacán, Puebla. (*Conclusio*)]. 10 figs., An. Inst. Biol., V, 1, 55-80. Mexico (1934). **b - 1293**

Descripción de : otros Lamelibranquios, *Gastropoda*, *Anthozoa*, *Echinoidea*, *Spongia*, *Bryozoa*, *Vermes*, *Belemnoidea*, *Foraminifera*.

Estratigrafia del Cretacico. Terciario. Cuaternario. Los estratos y rocas de la región de Tehuacán. Geología historica de la región de Tehuacán.

**Nagao Takumi & Saito Ryuji** - Peculiar Septal Features Observed in Ammonites of Certain Lytoceratid Genera [*Peculiaritates quoad septa quæ observatae fuerunt in generibus quibusdam ad familiam « Lytoceratidae » pertinentibus*]. 8 figs., Proc. Imp. Acad., X, 6, 357-360. Tokyo (1934). **b - 1294**

The AA. had the opportunity to examine a number of Ammonites with a « septal lobe », derived from the Cretaceous of Hokkaido and Saghalin. It is evident that the presence of extraordinarily developed antisiphonal lobes with septal lobes and pseudosiphuncular tubes traversing the shell is intimately related to a true pelagic life and may play an important rôle in the strengthening of the shell.

**Nalivkine D.** - Le Dévonien des montagnes de Kharaoulakh, de l'Ile Koteljnyj et de l'Indighirka [*Devonianum montium* Kharaoulakh *in insula* Koteljnyj *et in regione* Indighirka]. (En russe). 1 fig., Trans. Arct. Inst., XII, 203-212. Leningrad (1933). **b - 1295**

Description de la faune du Dévonien supérieur découverte au cours des travaux de l'expédition de la Léna Inférieure, caractérisée par la prédominance des Brachiopodes et dont les formes les plus caractéristiques sont *Schizophoria iowensis* Hall et *Spirifer novosibiricus* Toll.

**Nalivkine D.** - Sur le Paléozoïque de la Novaja Zemlja [*Palaeozoica œtas in Nova Zemlia*] (En russe). Trans. Arct. Inst., XII, 213-216. Leningrad (1933). **b - 1296**

Description de la faune paléozoïque de la Novaja Zemlja sur la base d'une petite collection réunie au cours des expéditions de R. L. Samojlovitch en 1925, 1927 et l'expédition de G. Gorbatzkij en 1931. Vu que l'état de conservation de certains spécimens n'était pas parfait on n'a pas pu déterminer leur âge avec exactitude.

**Nassans R.** - Liste des fossiles jurassiques figurés de la collection Victor Maire [*Index fossilium giurassicorum pinctorum ad collectionem* Victor Maire *pertinentium*]. Bull. Mus. Nat. Hist. Natur., 2e sér., VI, 1, 136-139. Paris (1934). **b - 1297**

Ouvrages dans lesquels sont décrites et figurées les espèces citées dans ce travail.

Liste de : Spongiaires, Echinodermes, Brachiopodes, Gastropodes, Lamellibranches, Céphalopodes.

**Negri Luigi** - Gasteropodi, Scafopodi e Cefalopodi paleogenici della Sirtica e del Fezzan orientale [*Gasteropoda, Scaphopoda et Cephalopoda palæogenica in Sirtica et* Fezzan *orient.*]. 6 fig., 1 tav., Missione Scient. R. Accad. d'Ital. a Cufra (1931-IX) III, 131-181. Roma (1934). **b - 1298**

I Gasteropodi raccolti in Libia dalla Missione Desio nel 1931, assommano a circa 170 individui, rappresentanti 58 specie e 24 generi ; 2 specie sono date dall'A. come nuove.

**Nomura Schichihei** - Fossil *Mollusca* from the Island of Paramushiru, Chishima (Kurile Islands) [*Mollusca fossilia ex insula* Paramushiru, Chishima, (*Insulae* Kurile)]. 1 pl., Jap. Journ. Geol. & Geogr., Trans., XI, 1/2, 1-10. Tokyo (1933). **b - 1299**

Of the ten species described, two are indeterminable, three new to science and extinct, while five living ones are found in seas adjacent to the fossil locality.

**Oepik A.** - Ueber einige *Dalmanellacea* aus Estland [*Nonnulla Dalmanellacea in Estonia*]. 6 Taf., 3 Abb., Acta et Commentationes Univ. Tartuensis (Dorpatensis), XXV, A, 1-24. Tartu (1933). **b - 1300**

Erörterung der Klassifikation der hier zu untersuchenden estländischen Platystrophien. Eine neue Familie *Apatorthidae* wird hier provisorisch aufgestellt, die mit der Unterfamilie *Angusticardiinae* Schuchert & Cooper sehr nahe verwandt ist. Diagnosen, Synonyme und Vorkommen der folgenden Familien und Arten : *Apatorthidae* nov. fam. : *Apathortis punctata* n. sp., *A. tenuicosta* (Eichwald), *A. inflata* n. sp., *A. jugata* n. sp., *A. ultima* n. sp. ; *Paurorthidae* nov. fam. : *Paurorthis parva* (Pander) ; *Onniellidae* (nomen novum), *Onniella navis* (A. Oepik), *O. navicula* n. sp.

**Ognev V. N .** - The Upper Jurassic Fossils from Hooker Island on Franz-Joseph Land [*Fossilia ad Jurassicum inferius pertinentia ex insula* Hooker]. (In Russ., Engl. Rés.). 1 table, 5 pl., Trans. Arct. Inst., XII, 217-233. Leningrad (1933). **b - 1301**

Description and diagnosis of a collection of fossils from Hooker Island, made by I. M. Ivanov in 1931, consisting of some fragments of fragmocones, nine species of Belemnites and six species of Ammonites. These characterize two beds of gypsiferous clay from the section of the sedimentary series underlying the basalts on Cape Medevezhyj. The age of the clay is determined respectively as Callovian and Portlandian. Some conclusions are drawn on hand of the study of the collection.

**Oosting C. H.** - Neue Mollusken aus dem Pliocän von Süd-Bantam (Java) [*Mollusca nova ex œtate Pliocenica in* Bantam *merid.* (Java)]. 13 Abb., De Mijningenieur, XIV, 192-197. Bandoeng (Java) (1933). **b - 1302**

Die folgenden hier beschriebenen Arten sind neu : *Mathildia bantamensis, Triphora bantamensis, Typhis* (*Typhinella*) *bantamensis, Nassarius* (*Alectrion*) *bantamensis, Nassarius* (*Alectrion*) *insulindicus, Bullia* (*Adinus*) *bantamensis, Bullia* (*Adinus*) *litoralis, Drillia Oppenoorthi, Nucula bantamensis, Nuculana bantamensis, Tellina* (*Tellina*) *rosa-indica* und *Tellina* (*Moerella*) *bantamensis.*

**Oostingh C. H.** - Aanteekeningen over eenige bivalven uit het Neogeen van Java [*Lamellibranchiata quædam e stratis neogenicis in* Java]. De Ingenieur in Ned. Ind., 19-21. (?) (1934). **b - 1303**

Beschreibung der neuen Formen *Metis Kehreri* n. sp., *Cardilia krawangensis* n. sp., *C. Ludwigi* n. sp., Neuer Fundort für *Metis Grimesi elongata* Haanstra & Spiker.

**Packard Earl L., Remington Kellogg & Huber Ernst** - Contributions to Palaeontology : Marine Mammals [*Contributiones in palæontologiam. Mammalia marina*]. ill., 136 pp., Carnegie Instit. Washington. Washington (?). **b - 1304**

**Parks William A.** - New Species of Stromatoporoids, Sponges, and Corals from the Silurian Strata of Baie Des Chaleurs [*Species novæ ad Stromatoporoidea, Porifera et Corallia pertinentia e stratis silurianis in* Baie Des Chaleurs]. 8 pl., Univ. Toronto Studies, Geol. Ser., 33, 1-40. Toronto (1933). **b - 1305**

*Actinostroma praecursum, A. perforatum, A. mirum, Clathrodictyon crickmayi, C. stylotum, C. s.* var. *crassum, Rosenella ? densa, Lophiostroma ? dubium, Dictyostroma ? orientale, Stromatopora danielensis, S. ? dartiana, S. ? aporita, S. ?* var. *tenuis, S. ? atlantica, Syringostroma ? northropi, Stromatoporella distincta, S. remota, S. prima, S. crassa, S. choiuinardensis, S. alcocki, Girvanella siluriana, Gaspespongia,* type *G. basalis, Heliolites subtulata* v. *turbinata, Alveolites depressus, Strombodes approximatus, Protarea clemvillensis.*

**Peltzmann Ida** - Graptolithen aus dem Gotlandium (Obersilur) der Karnischen Alpen, insbesondere der Dellacher Alpe am Zollner [*Graptolitha ad Silurianum superius pertinentia* (Gotlandium) *in Alpibus Carniæ*]. 7 Abb., 1 Taf. a. T., 1 Karte, 1 Tab., Sitz. Ber. Akad. Wiss., Abt. 1, CXLIII, 5/7, 195-211. Wien (1934). **b - 1306**

I. Allgemeine Uebersicht. II. Stratigraphie. III. Paläontologischer Teil : *Stomatograptus* sp. (nov. sp. ?), *Monograptus tumescens* Wood, 1900, *M. vomerinus* var. *crenulatus* Toernquist, 1881, *M.* cf. *parapriodon* Boucek, 1931, *M. flemingi* var. *primus* Elles u. Wood, 1912, *M. riccartonensis* Lapworth 1876, *M. gustavae* n. sp., *N. gustavae* var. *tariccoiforme* n. f., *M.* cf. *tariccoi* Gortani, 1922, *M. probelophorus* n. sp., *M. lamarmorae* (Meneghini, 1857), Gortani 1922, var. *compactus* n. f., *M. subconicus* Toernquist, 1879.

**Plummer Helen J.** - *Epistominoides* and *Coleites*, New Genera of *Foraminifera*. 1 fig., 1 pl., Amer. Midland Natural., XV, 5, 601-608. (?) (1934). **b - 1307**

*Pulvinulina reticulosa* becomes the genotype of *Coleites* and *Saracenaria wilcoxensis* the genotype of *Epistominoides*. The new species *E. midwayensis* is described.

**Ravn J. P. J.** - Études sur les Pélécypodes et Gastropodes daniens du calcaire de Faxe [*Pelecypoda et Gasteropoda œtatis danianœ e lapidibus calcareis in* Faxe]. 7 fig., 6 pl. h. t., Mém. Acad.

R. Sc. & Lett. de Danemark, 9-ème sér., V, 2, 1-71. Copenhague (1933). **b - 1308**

Ce travail est divisé en une partie générale concernant l'état de conservation et la provenance des fossiles etc. et une partie spéciale avec descriptions des familles, des genres et des espèces des Pélécypodes et des Gastropodes. Environ 57 espèces nouvelles, une famille nouvelle, *Faxiidae* avec le genre *Faxia* n. gen. et l'espèce *Faxia macrostoma* n. sp. et un nouveau genre *Johnstrupia* n. gen. avec l'espèce *Johnstrupia faxensis* n. sp. ont été reportés. Un nouveau nom *Tritonium* (*Sassia*) *faxense* n. nom. a été donné à une espèce, connue déjà en 1878 dans l'eocène belge sous le nom de *Tritonium fenestratum* Ravn.

**Reina Carla** - Su alcuni Molluschi paleogenici dell'Isola di Rodi (Egeo). Nota preventiva [*Mollusca quædam palæogenica ex Insula Rhodos. Nota prior*]. Rend. R. Ist. Lomb. Sc. Lett., ser. II, LXVI, 11/15, 839-842. Milano (1933). **b - 1309**

In questa nota si dà un elenco dei Molluschi rinvenuti nei terreni paleogenici di Rodi e delle località di provenienza con l'indicazione dei rispettivi livelli.

**Richter Rud.** - Das Werden der Heimat in Bildern [*De progressione geologica nostræ regionis*]. 3 Abb., Natur u. Volk, LXIV, 1, 3-9. Frankfurt a. M. (1934). **b - 1310**

Populärwissenschaftliche Darstellung der rheinländischen geologischen Geschichte mit Abbildungen zahlreicher Meerestiere. Unser Dachschiefer als Meeresschlamm. Unser Massenkalk als Korallenriff. Die Meeresküste von Alzey.

**Richter Rud. & E.** - Missbildungen bei *Scutellidæ* und konstruktive Konvergenzen [*De anomaliis Scutellidarum deque cumvergentiis constructionis*]. 11 Abb., Senckenbergiana, XVI, 2/3, 155-160. Frankfurt a. M. (1934). **b - 1311**

Zwei verschiedene Weisen von Versteifung des all zu dünnen Schwanzes der *Scutellidae*, das Wellblech-Verfahren durch Rippenbildung (*paliferum*-Typus), und das Gewölbe-Verfahren (*campaniferum*-Typus). Beispiele von Missbildung bei *Thysanopeltis speciosa* (Barrande) und *Harpes venulosus*. Formänderungen und die folgende Tendenz eines gleichmässig gewellten Querschnitts.

**Roth Robert** - Some Morrison *Ostracoda* [*Ostracoda quædam ad formationem* Morrison *pertinentia*]. 1 pl., Journ. Paleontol., VII, 4, 398-405. (?) (1933). **b - 1312**

A collection from the lower part of the formation in the Black Hills, S. Dakota, compared with Texas Comanchean fossils, indicates that the Morrison probably is not of Lr. Cretaceous age. A brackish water environment is suggested. *Jonesina minnekahtensis* n. sp., *J. pahasapensis*, n. sp., *Bairdiocypris morrisonensis* n. sp., *B. trapezoidalis* n. sp., *Paracypris simplus* n. sp., *P. acuminatus* n. sp., *Pseudocypridina* (*Cypridae*) erected for *P. Piedmonti*, *P. ventroas* v. *bispinosus* (*Cypridea v.* var. *b.* Vanderpool). (Author).

**Ruedemann Rudolf** - Paleozoic Planktonic Faunas of North America [*Fauna planctonica palæozoica in America sept.*]. Proc. Nat. Acad. Sc. U. S. A., XIX, 1, 157-159. Washington, D. C. (1933). **b - 1313**

Records of sporadic formations of Cambrian *Medusae*, floating stocks of Hydrozoans (*Camptostroma*), Ordovician and Devonian Siphonophores (*Discophyllum* and *Paropsonema*), Cambrian to Devonian Crustaceans, larval Trilobites etc. As to the planktonic origin of the Paleozoic fauna of N. A. it seems probable that most of the black shales (save the graptolite shales) were formed in more or less enclosed basins but not in the open ocean.

**Ruedemann Rudolf** - *Camptostroma*, a Lower Cambrian Floating Hydrozoan [*Camptostroma e Cambriano infer.*]. 2 figs., 4 pl., Proc. U. S. Nat. Mus. (N. 2954), LXXXII, 13, 1-8. Washington, D. C. (1933). **b - 1314**

Summarising the observations of the A., it seems safe to consider *Camptostroma* as a tubularian hydrozoan with relations to the the *Siphonophora* on one hand and the Paleozoic *Stromatoporoidea* on the other.

Description of the new species: *C. roddyi* and *C. resseri*.

**Ruedemann Rudolf** - Vorweltliche Meerestiere in lebenden Bildern: « Aquarien der Vorwelt » [*Animalia præhistorica in picturis. Aquaria ætatis praehistoricæ*]. 4 Abb., Natur. u. Volk, LXIV, 1, 9-14. Frankfurt a. M. (1934). **b - 1315**

Beschreibung mit Abbildungen einer dem « New York State Museum in Albany N. Y. » entstammenden Sammlung. Reproduktionen vorweltlicher Meerestiere, wie Merostomen der Silurzeit; Tintenfische, Fische, Siphonophoren, Kieselschwämme, Algen, Korallen, Seesterne, Brachiopoden etc. der oberdevonischen Zeit; Tintenfische, Trilobiten, Seelilien, Schnecken und Muscheln der unterdevonischen Zeit.

**Ruedemann Rudolf** - Cambrian Graptolites [*Graptolites e Cambriano*]. Science, LXXX, 2062, 15. New York (1934). **b - 1316**

Correction of the errors and uncorrected determinations made in the account on Cambrian Graptolites, published by the A. in Bulletin N. 3, Vol. 12 (1933) of the Public Museum of the City of Milwaukee.

**Russell Loris S.** - Pleistocene and Post-pleistocene Molluscan Faunas of southern Saskatchewan (Canada) [*Mollusca pleistocenica et post-pleistocenica in* Saskatchewan *merid.*]. ill., Canad. Field Natural., XLVIII, 34-37. Ottawa (1934). **b - 1317**

**Saito Kazuo** - Older Cambrian *Trilobita* and *Conchostraca* from North-West Korea [*Trilobita et Conchostraca e Cambriano in* Korea *nord-occid.*]. 8 figs., 3 pl., Jap. Journ. Geol. & Geogr., Trans., XI, 3/4, 211-237. Tokyo (1934). **b - 1318**

From the described species the following ones are new to science: *Eodiscus fusifrons* n. sp., *E. spiniger* n. sp., *Oryctocephalus orientalis* n. sp., *O. kobayashii* n. sp., *Redlichia coreanica* n. sp., *R. nokamurai* n. sp., *Bonnia tokunagai* n. sp., *B.* cf. *tokunagai* n. sp., *B. orientalis* n. sp., *Arthricocephalus ? primigenius* n. sp., *Bradoria subacuminata* n. sp., *Aluta obsoleta* n. sp., Out of 9 genera represented by 19 species three were hitherto unknown in Eastern Asia, while three others are recorded only from formations younger than Manto shale.

**Samoilovitch R. & Bodylevsky V.** - On Some Jurassic Fossils from Hooker Island (Franz-Joseph Land) [*Fossiles quidam jurassici in insula* Hooker (*Terra Francisci Josephi*)]. 2 figs., 2 tabl., Trans. Arct. Inst., XII, 29-41, Leningrad (1933). **b - 1319**

This paper contains the description of fossils collected during the Expedition of the Arctic Institute in 1930 and partly in 1929. The following species have been identified: *Macrocephalites ishmae* Keys, *Cadoceras nanseni* Pomp. and *Cadoceras* spec. (? cf. *nanseni* Pomp.), *Quenstedticeras* sp., *Belemnites borealis* d' Orb., *B. panderi* d'Orb., *B.* aff. *panderi* d'Orb. The described fossils assert the presence of the Lower, Middle und Upper Callovian.

**Sandidge J. R.** - Foraminifera from the Jurassic in Montana [*Foraminifera e Jurassico in* Montana]. 2 figs., 1 pl., Amer. Midland Natural., XIV, 2, 174-185. (?) (1933). **b - 1320**

Twelve species are described and figured in this paper, belonging principally to the *Lagenidae*. The chief genera represented are: *Lenticulina*, *Vaginulina* and *Frondicularia*.

**Sarra Raffaele** - Denti di Pesci del Cretaceo e di Mammiferi del Pliocene rinvenuti in Basilicata [*Dentes piscium ætatis Cretaceæ dentesque Mammaliorum ætatis pliocenicæ in Basilicata reperti*]. Riv. Ital. Paleontol., XXXIX, 1, 29-34. Pavia (1933). **b - 1321**

Esame di denti appartenenti alle forme seguenti: *Gyrodus* (?) *cretaceus* ed *Enchodus lewesiensis* Mantell., *Orca* sp., *Pristiphoca occitanica* Gerv., *Sus erymanthius* Roth e Wagner.

**Schneegans D.** - Étude paléontologique préliminaire des fossiles recueillis par R. Lambert entre Agadez et Zinder (Niger) [*Studium palæontologicum prius fossilium collectorum a.* R. Lambert *inter* Agadez *et* Zinder (Niger)]. C. R. Acad. Sc., CXCVIII, 25, 2191-2193. Paris (1934). **b - 1322**

Considérations sur les fossiles du Cénomanien supérieur et du Turonien inférieur trouvés par R. Lambert et R. Furon dans les couches marines.

**Sieber Rudolf** - Weitere Ergebnisse paläobiologischer Untersuchungen an der Fauna der rhätischen Riffkalke der Rötelwand (Osterhorngruppe, Salzburg) und anderer rhätischen Riffgebiete [*Resultatus ulteriores ex inquisitionibus palaeobiologicis in faunam scopulorum calcareorum reticorum ad* Osterhorngruppe, *Salisburgi, pertinentium et in faunam aliorum scopulorum reticorum Alpium septentrionalium*]. Anz. Akad. Wiss., Math. Naturwiss. Kl., LXXI, 19, 258-261. Wien (1934). **b - 1323**

Diese Untersuchungen bilden die Fortsetzung derjenigen, die schon in Sommer 1933 an der rhätischen Fauna der Rötelwand-Riffmasse unternommen wurden. Neue Funde sind hier angegeben wie Z. B. *Thecosmilia, Cardita, Cassianella, Pinna, Plicatula, Ostrea, Pecten* u. a. (S. auch Akad. Anz. N. 19, X, 1933).

**Silvestri Alfredo** - Su di alcuni Foraminiferi terziari della Sirtica [*De quibusdam Foraminiferis terziariis in Tripolitania*]. 3 tav., Miss. Scient. R. Accad. d'Ital. a Cufra (1931-IX), III, 5-30. Roma (1934). **b - 1324**

**Smith Stanley** - On *Xylodes rugosus* sp. nov., a Niagaran Coral [*Xylodes rugosus n. sp., corallium in* Niagara]. 1 pl., Amer. Journ. Sc., XXVI, 155, 512-522. New Haven, Conn. (1933). **b - 1325**

The main purpose of this paper is to describe and illustrate *Xylodes rugosus*, a Niagaran coral belonging to the genus *Xylodes* Lang and Smith, but it considers also several other species of silurian Corals belonging to the genus *Xylodes* and *Eridophyllum*.

**Stefanini G.** - Molluschi del Giuralias della Somalia. (Paleontologia della Somalia: Fossili raccolti dalle Missioni Stefanini-Paoli (1913) e Stefanini-Puccioni (1924) e da altri) [*Mollusca ætatis Giuraliassicæ Somaliæ*]. 5 tav., Palaeontogr. Ital., XXXII, suppl., 1, 1-53. Siena (1933). **b - 1326**

Cenni sulle conoscenze relative ai Molluschi giurassici della Penisola Somala, con elenchi completi delle specie ricordate o descritte da vari autori e illustrazione dei Cefalopodi raccolti dall'A. e da altri, specialmente nella Somalia Italiana ed Etiopia.

**Stensiö A:son Erik** - On the Heads of Certain Arthrodires I. *Pholidosteus, Leiosteus,* and *Acanthaspidis* [*Arthrodira quædam, quæstio de capite*]. 30 figs., 14 pl., Kgl. Svenska Vetenskapsakad. Handl., Tredje Ser., XIII, 5, 1-79. Stockholm (1934). **b - 1327**

The researches carried out by the A. on the head of *Pholidosteus, Leiosteus* and the Acanthaspid-form from *Podolia* have thrown much new light not only on the endocranium and visceral endoskeleton, but also on the relations between these and the dermal bones of the head. On account of this it is possible now to understand much better the organisation of the Arthrodires.

**Stewart Roscoe E. & Stewart Katherine C.** - Notes on the *Foraminifera* of the Type Merced at Seven Mile Beach, San Mateo County, California [*Foraminifera ad exemplar* Merced *pertinentia in* Seven Mile Beach S. M. County *in California*]. 2 pl., Trans. San Diego Soc. Natur. Hist., VII, 21, 259-270. (1933). **b - 1328**

Description of *Nonionella Cushmani* and notes on 22 associated *Foraminifera*.

**Störmer Leif** - Are the Trilobites Related to the Arachnids? [*Num Trilobita affinia sunt Arachnidarum* ?]. 2 figs., Amer. Journ. Sc., XXVI, 152, 147-157. New Haven, Conn. (1933). **b - 1329**

Contribution to the discussion of the zoölogical position of the Trilobites, on hand of original material, which brings out certain facts about the appendages that have previously escaped notice or have not been sufficiently emphasized. The author reaches to conclusion on several analogies existing between Trilobites and Arachnids.

**Störmer Leif** - *Merostomata* from the Downtonian Sandstone of Ringerike [*Merostomata in arenaria downtoniana in regione norvegica* Ringerike]. 39 figs., 12 pl., 125 pp., Skrift. Norsk. Vidensk. Akad. Oslo, 1, Math.-Naturv. kl. 1933, 10. Oslo (1934). **b - 1330**

Morphology and relationships of ten species of *Merostomata*. The A. studies especially the eurypterids, six species of which are new, their relation to *Xiphosura, Chelicerata, Pedipalpi,* and *Scorpionida* and gives a long discussion of the « median appendages ».

**Storrs Cole W. & Ponton Gerald M.** - New Species of *Fabularia, Asterocyclina* and *Lepidocyclina* from the Florida Eocene [*Species novæ ad genera « Fabularia », « Asterocyclina » et « Lepidocyclina » pertinentes ex aetate eocenica floridensi*]. 2 pl., Amer. Midland Natural, XV, 2, 138-147. (?) **b - 1331**

Detailed description of the new species *Fabularia Vaughani*. This is the first record of this genus in America.

**Straw S. H.** - The Fauna of the Palaeozoic Rocks of the Little Missenden Boring with a Report on the Fish Remains, by Arthur Smith Woodward [*Fauna saxorum palaeozoicorum ad perforationem nomine* « Little Missenden » *pertinentium. Relatio adiungitur de relictis piscium per* Arthur Smith-Woodward]. 2 pl., Summary Progr. Geol. Surv. Great Britain and Mus. Pract. Geol. 1932, 2, 112-142. (?) (1933). **b - 1332**

The following forms are new: *Lingula missendenensis, L. zigzag, Orbiculoidea crudifera, Dalmanella missendenensis, Chonetes novascotius* v. *missendenensis, Hormotoma missendenensis, Orthoceras ludense* v. *granulatum*. Table showing the vertical distribution of the *Crinoidea, Annelida, Bryozoa, Brachiopoda, Lamellibranchiata, Gastropoda, Cephalopoda, Trilobita, Crustacea,* and *Pisces*. Brief notes on the fish remains.

**Szörenényi Elisabeth** - Neue tertiäre *Sepiinæ* aus Ungarn nebst Bemerkungen zum zeitlichen Auftreten und zur Entwicklung der Gattung *Sepia* [*Sepiinæ tertiariae novae Ungaricæ cum observationibus circa præsentiam temporariam et progres-*

*sionem generis « Sepia »*]. 10 Abb. a. T., Földtani Közlöny (Geol. Mitt.), LXIII, 7/12, 183-189. Budapest (1933). **b - 1333**

Kurze Uebersicht über frühere Befunde. Diagnose mit Angabe des Alters und Fundortes der folgenden neuen Formen: *Sepia oligocaenica* n. sp., *Sepia harmata* n. sp., *Archaeosepia naefi* n. gen. n. sp., *Belosepia* n. sp., Die Vf. versetzt die Entstehung der *Sepiinae* in die voreozäne Zeit.

**Taliaferro N. L. & Schenck Hubert G.** - *Lepidocyclina* in California. 4 figs., Amer. Journ. Sc., XXV, 145, 74-80. New Haven, Conn. (1933). **b - 1334**

Description of a formation of early Miocene age in San Luis Obispo County, California, in which orbitoidal Foraminifera of the genus *Lepidocyclina* were recently discovered. The present is not only the first record of the genus from the Pacific Slope of North America, but is one of the few Miocene occurrences of the subgenus *Lepidocyclina* in the world. The formation carrying these fossils is known in California as the Vaqueros. Description and diagnosis of the specimens discovered; their relationship with other marine Invertebrates of the Miocene age.

**Tanner V.** - Bidrag till kännedomen om den subfossila marina molluskfaunan i Ishavsfinland [*Contributio in faunam marinam subfossilem Molluscorum cognoscendam*]. Mem. Soc. pro Fauna et Flora Fennica, 1932-1933, IX, 92-103. Helsinki (1933-34). **b - 1335**

Questo lavoro completa le ricerche precedenti dell'A. sul Quaternario delle parti settentrionali della Fennoscandia. Lista delle specie trovate nelle differenti località.

**Tegland Nellie May** (a Posthumous Paper) - The Fauna of the type Blakeley Upper Oligocene of Washington [*De fauna ad specimen* Blakeley *oligocenicum superius in* Washington *pertinente*]. 14 pl., 2 maps, Univ. Calif. Publ., Bull. Dpt. Geol. Sc., XXIII, 3, 81-174. Berkeley, Calif. (1933). **b - 1336**

Historical review. A brief description of the type section of the Blakeley horizon. Fauna of the Lower Blakeley conglomerate. Shale Fauna of the type Blakeley. Relationship of fauna of the type Blakeley to fauna of the Astoria, Oregon, Miocene. Mistaken identifications of Blakeley species, with correction. Relationship between the type Blakeley and the Twin Rivers formations. Faunal relation to the San Lorenzo formation of Santa Cruz County, California. Transitional Oligocene-Miocene. Faunal relation to Mount Diablo San Lorenzo. Faunal relations of type Blakeley and Sooke. Description and discussion of species belonging to: Class *Pelecypoda*, Class *Gastropoda*, Phylum *Brachiopoda*, Phylum *Echinodermata*, Phylum *Coelenterata*. Bibliography.

**Tesch P.** - De Opeenvolging van de oud-plistoceene lagen in Nederland [*De successione stratorum ætatis Pleistocenicæ superioris in Hollandia*] (Holländ. Text, Dtsch. Rés.). 4 Karten, Tab., Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LI, 5, 649-675. Leiden (1934). **b - 1337**

In dieser Abhandlung wird gezeigt, dass in gewissen westlichen Teilen der Niederlande eine mächtige marine Schichtenfolge vorliegt, welche im mittleren Teil eine ausgesprochene arktische Molluskenfauna (*Yoldia* (*Portlandia*) *arctica*, *Leda minuta*, *Astarte borealis*, *Cardium groënlandicum*, *Scalaria groënlandica* usw.) führt. Wenn man die alpine Gliederung auch dem nordeuropäischen Quartär zu Grunde legt, erscheinen die marine Schichtenfolge mit arktischer Molluskenfauna im Westen des Landes als eine Meeresbildung des Günzglazials, der Horizont von *Viviparus glacialis* als Günz-Mindelinterglazial, der Horizont von *Viviparus diluvianus* als Mindel-Rissinterglazial. Nur in dieser Weise besteht die Möglichkeit das Quartär von Skandinavien und Deutschland mit demjenigen Englands in befriedigender Weise in Verbindung zu bringen. (Aus der Zusammenf. des Vf.).

**Thalmann Hans E.** - Nachtrag zum Nomenclator zu Brady's Tafelband der Foraminiferen der « Challenger » - Expedition [*Supplementum ad nomenclaturam qua utitur in tabulis per* Brady *redactis quæ repraesentant Foraminifera collecta inter navigationem* « Challenger »]. Eclogae geol. Helvetiae, XXVI, 2. Basel (1933). **b - 1338**

**Thalmann Hans E.** - Zwei neue Vertreter der Foraminiferen-Gattung *Rotalia* Lamarck 1804; *Rotalia cubana* nom. nov. und *R. trispinosa* nom nov. [*Species duæ novæ ad genus « Rotalia »* Lamarck *1804 pertinentes*]. Eclogae geol. Helvetiae, XXVI, 2, 248-251. Basel (1933). **b - 1339**

Die von d'Orbigny in 1839 unter dem Namen *Calcarina pulchella*, beschriebene kubanische Form dürfte *Rotalia cubana* Thalmann genannt werden. Die Art genannt *Rotalia pulchella* (d'Orbigny) de Brady muss zu *R. trispinosa* Thalmann berichtigt werden.

**Thalmann Hans E.** - Index to Genera and Species of *Foraminifera* Erected during the Year 1931 [*Index generum et specierum Foraminiferorum a. 1931*]. Journ. Palaeontol., VII, Sept. Oklahoma (1933). **b - 1340**

List of eleven new genera and 194 new species described in the literature for 1931.

**Thalmann Hans E.** - Bibliography of the *Foraminifera* for the Year 1931 [*Foraminifera. Bibliographia a. 1931*]. Journ. Palaeontol., VII, Sept., 343-349. Oklahoma (1933). **b - 1341**

This list contains the titles of 145 papers published in 1931.

**Thalmann Hans E.** - Ueber geographische Rassenkreise bei fossilen Foraminiferen [*Stirpes differentes inter Foraminifera fossilia*]. Paläontol. Ztschr., XVI. Berlin (1934). **b - 1342**

**Trusheim F.** - Eine bedeutsame Schichtfläche aus dem Muschelkalk und ihre Auswertung durch die Meeresgeologie [*De notando quodam strato in formatione calcarea Molluscorum eiusque momento pro geologia marina studenda*]. Natur. u. Volk, LXIV, 9, 333-340. Frankfurt a. M. (1934). **b - 1343**

Beschreibung, auch an Hand sehr wohl gelungener Photographien von verschiedenen durch Luft und Tiere gebildeten Trichtern und Auftreibungen im Sande, besonders an den Nordseewatten. Aus den hier beobachteten Erscheinungen können viele bedeutende Schlüsse in Bezug auf geologische Formationen gezogen werden. Ein Beispiel ist hier angeführt, Vergleich zwischen der Strandoberfläche am Nordseewatten und einer Sandwurm-Siedlung (*Arenicolites franconicus* Trush.) aus dem Hauptmuschelkalk von Würzburg.

**Van Straelen V.** - Notes sur les Phyllocarides Paléozoiques ou *Archaeostraca* de la Belgique et remarques sur la systématique de ces Crustacés [*Archaeostraca palaeozoica belgica. Considerationes de eorum systhematica*]. 2 fig., Bull. Mus. R. Hist. Natur., IX, 16, 1-12. Bruxelles (1933). **b - 1344**

Description des espèces suivantes: 2 *Ceratiocaris* spp., *Caryocaris Wrighti*, *Dithyrocaris tenuistriata*, *Ellipsocaris dewalquei*, *Spathiocaris chagrinensis*. Répartition systématique des Phyllocarides trouvés en Belgique. Remarque sur la systématique des Phyllocarides, dont la nature est problématique.

**Wagner Georg** - Deutscher Muschelkalk (« Wellengebirge ») am Toten Meer [*De calcare germanico Molluscorum apud lacum Asphaltiden*]. 5 Abb., Natur. u. Volk, LXIV, 11, 449-454. Frankfurt a. M. (1934). **b - 1345**

Unter Hinweisung auf die Arbeiten von L. R. Cox « A. Triassic Fauna from the Jordan Valley », « Further Notes on the Transjordan Trias » macht der Vf. hier einen Vergleich zwischen den deutschen Triasformationen und denen am Nord-Ost-Rande des Toten Meeres; dieselben äusseren Bedingungen, dieselben Gesteine, dieselbe Fauna: *Lingula*, *Lima striata*, *Gervillia socialis*, *Pecten discites*, *Placunopsis*, *Terquemia*, *Plicatula* usw.

**Wickenden R. T. D.** - Jurassic *Foraminifera* from Wells in Alberta and Saskatchewan [*Foraminifera jurassica e puteis in* Alberta *et* Saskatchewan]. 2 pl., Trans. R. Soc. Canada, ser. 3, sect. 4, 27, 157-170. Ottawa (1933). **b - 1346**

The majority of species described belongs to the *Lagenidae*. The fauna of this formation is very similar to one described by Sandidge from the Sundance formation in S. E. Montana.

**Yabe Hisakatsu & Sugiyama Toshio** - Notes on Three New Corals from Japan [*Corallia nova tria ex Japonia*]. 3 pl., Jap. Journ. Geol. & Geogr., Trans., XI, 1/2, 11-18. Tokyo (1933). **b - 1347**

This paper is divided into two parts: 1) The second living species of *Stylocoenia*, *S. hanzawai* from Amami-O-shima, the Riukiu Islands and 2) Two new Corals from Borodino Islands: *Pseudo-columnastrea Yamanarii* and *Stylocoenia ? aokii.*

**Yabe Hisakatsu & Sugiyama Toshio** - A New Species of *Disjectopora* from Japan [*Species nova ad genus « Disjectopora » pertinens ex Japonia*]. 1 fig., 1 pl., Jap. Journ. Geol. & Geogr., Trans., XI, 3/4, 171-174. Tokyo (1934). **b - 1348**

After some general considerations on the occurrence of Stromatoporoids and their related forms in the Permian deposits of the world the A. gives a diagnosis and description of *Disjectopora japonica* n. sp. on hand of the unique specimen of this species consisting in a very fragmental piece of a coenosteum.

**Yabe Hisakatsu & Sugiyama Toshio** - *Amblysiphonella* and *Rhabdactinia* gen. and sp. nov. from the Upper Palaeozoic Limestone of Mimikiri, near Sakawa-mati, Tosa Province, Sikoku, Japan [*Amblysiphonella et Rhabdactinia gen. et sp. nov. e calcare Palaeozoici superioris in* Mimikiri, *apud* Sakawa-mati, *in provincia* Tosa, Sikoku, *Japonia*]. 3 pl., 1 table, Jap. Journ. Geol. & Geogr., Trans., XI, 3/4, 176-180. Tokyo (1934). **b - 1349**

Description of *Amblysiphonella* Steinmann and diagnosis of *A. sikokuensis* sp. n. and *A. mabuchii*, sp. n.; *Rhabdactinia*, gen. nov.: *R. columnaria* sp. n. These fossils are indisputable evidences of the Permian age of the limestone of Mimikiri, studied during students' excursions in the summer 1932.

**Yabe Hisakatsu & Sugiyama Toshio** - An Upper Palaeozoic Crinoid from Japan [*Amphoracrinus sp. e Palaeozoico superiore japonensi*]. 1 pl., Jap. Journ. Geol. & Geogr., Trans., XI, 3/4, 349-351. Tokyo (1934). **b - 1350**

Diagnosis of *Amphoracrinus* sp. indet. on hand of material consisting of a calyx of a crinoid in external cast and some stem-joints. The fossil may possibly represent a new species, but the material in hand is too imperfect to warrant a new specific name being given to it.

**Zanon D. V.** - Silicoflagellate fossili italiane [*Silicoflagellata italica fossilia*]. 3 fig., 1 tav., Acta Pont. Acad. Sc. Novi Lyncaei, LXXXVII, 1, 40-82. Roma (1933-34). **b - 1351**

Depositi marini esaminati dall'A. e da altri per lo studio delle Silicoflagellate fossili. Descrizione di specie appartenenti agli ordini *Siphonotestales* e *Stereotestales.*

**Zilch Adolf** - Eine Perle aus der Meereszeit der Wetterau [*Margarita e zona marina Miocenis inferioris in* Wetterau]. 2 Abb., Natur u. Volk, LXIV, 3, 93-95. Frankfurt a. M. (1934). **b - 1352**

Im Jahre 1933 wurde in einem unter-miozänen Meeresarm in der Nähe von Frankfurt eine vorweltliche Perle gefunden, die von der Muschel *Perna sandbergeri* erzeugt worden ist. Etwas über ihre Bildung. Andere ähnliche Funde.

**Zuffardi-Comerci R.** - Corallari del Cretaceo della Somalia [*Corallaria ab aetate cretacea in Somalia*]. (Paleontologia della Somalia: Fossili raccolti dalle Missioni Stefanini-Paoli (1913) e Stefanini-Puccioni (1924) e da altri), 1 tav., Palaeontogr. Ital., XXXII, II, 209-216. Siena (1933). **b - 1353**

Notizia circa precedenti indicazioni di Corallari cretacei della Penisola e descrizione di 6 specie, delle quali 2 nuove.

**Zuffardi-Comerci R.** - Corallari-Zoantari fossili del Miocene della « Collina di Torino » [*Corallaria-Zoantharia fossilia ab aetate miocenica in* « Collina di Torino »]. 9 fig., 4 tav., Palaeontogr. Ital., XXXII, III, 1932, 85-132. Siena (1933). **b - 1354**

Elenco generale degli Zoantari miocenici dei celebri giacimenti della collina torinese, seguito dalla descrizione e illustrazione di numerose specie nuove o poco note.

**Zuffardi-Comerci R.** - Su alcuni Corallari terziari della Cirenaica e della Tripolitania orientale [*De Corallariis tertiariis e Cyrenaica et Tripolitania orient.*]. 1 tav., Missione Scient. R. Accad. Ital. a Cufra (1931 - IX), III, 43-60. Roma (1934). **b - 1355**

Studio della fauna terziaria di Coralli della Sirtica e dell'oasi di Cufra, rappresentata da avanzi di banchi corallini vissuti in ottime condizioni di clima e di ambiente.

# IV.

# PISCATUS.

## Piscatus oeconomia - Politica oeconomica - Legislatio.

### *Ratio productionis - Ratio industriæ et commercii, consociata opera.*

**Bonamico G.** - I mezzi più moderni a disposizione della pesca industriale. 15 fig., Boll. di Pesca, Piscicolt. e Idrobiol., IX, 4, 692-726. Roma (1933). **b - 1356**

Mezzi escogitati per rendere la pesca più agevole e redditizia: 1) perfezionamenti riguardanti il natante e cioè, lo scafo, il motore e gli apparecchi di bordo; 2) perfezionamenti riguardanti la condotta della navigazione per un migliore sfruttamento del mare; 3) perfezionamenti e innovazioni riguardo gli attrezzi e i sistemi di pesca; 4) nuovi sistemi e apparecchi per la conservazione del prodotto a bordo e durante il trasporto dal litorale ai mercati di consumo; 5) perfezionamenti riguardanti l'elemento uomo.

**Cooley Edward H.** - Why It Pays to Modernize. 1 photo, Fish. Gaz., LI, 1, 12-13. New York (1934). **b - 1357**

Author shows that good equipment of the right type and of modern design will more than pay for itself in increased earnings in the fishing industry.

**Doernte Karl** - Sicherung des reellen, verantwortungsbewussten Fischhandels. - Dtsch. Fischwirtsch., I, 35, 607-608. Berlin (1934). **b - 1358**

Betrachtungen über eine unliebsame Konkurrenz, welche sich zum Beginn der kalten Jahreszeit breitmacht, und über einige Massnahmen zum Schutze des reellen und seiner Pflicht bewussten Fischhandels.

**Eitzen (von) Jacob** - Ein Weg zur Hebung der Qualität der Seefische. 3 Abb., Fischmarkt, I, 6, 172-174. Cuxhaven (1933). **b - 1359**

Anforderungen, welchen der in der Hochseefischerei Anwendung findende Fischraum entsprechen soll. Beschreibung eines neuen Systems von Fischraum, welcher es gestattet eine bessere Fischware zu erzielen.

**Giese A. R.** - Die deutsche Fischerei im Aufbau. - Dtsch. Fischwirtsch., I, 26, 455. Berlin (1934). **b - 1360**

Eine Unterredung über den derzeitigen Stand der Fischwirtschaft mit dem erfolgten Neuaufbau seit der Machtübernahme durch den Nationalsozialismus, in der n° 284 vom 11. Oktober 1934 des « Völkischen Beobachter » veröffentlicht.

**Henderson C. A.** - Order N° 1607, Development, dated 24th November 1934. - Madras Fish. Dpt., Administration Rep. 1933-34, Govmt. Madras Developm. Dpt., 1-3. Madras (1934). **b - 1361**

Report concerning the development of Madras' fisheries with special regard to the general economic depression, the return notwithstanding of a measure to prosperity to the fishing industry of the West coast, the deep-sea fishing experiments and the fish-curing industry.

**Jannssen C. & Eitzen (von) J.** - Ein Weg zur Hebung der Qualität der Seefische. - Fischmarkt, II, 4, 88-90. Cuxhaven (1934). **b - 1362**

Stellungsnahme von Kapitän C. Jannsen zu dem in H. 6., 1933 (S. 172) derselben Zeitschrift erschienenen Aufsatze von Kapitän J. und einige Ausführungen von J. von Eitzen in Antwort auf die Annahmen.

**Juergens H.** - Ein offenes Wort an Fischgrosshandel und Fischindustrie. - Dtsch. Fischwirtsch., I, 2, 26-27. Berlin (1934). **b - 1363**

Eine offene Ansprache über die ernstesten und umstrittensten Angelegenheiten im Fischabsatz und der Fischversorgung.

**Kersten W.** - Statt Kritik mehr Einsicht. - Dtsch. Fischwirtsch., I, 2, 21-23. Berlin (1934). **b - 1364**

Einige Klärungen zu den Verordnungen der nationalsozialistischen Regierung in Bezug auf die Fischindustrie und -wirtschaft.

**Metzner H.** - Qualität - der wichtigste Faktor. - Fischmarkt, II, 3, 73-75. Cuxhaven (1934). **b - 1365**

Einige Betrachtungen über die neueste Entwicklung der Fischindustrie, welche den Charakter der Saisonindustrie verloren und einzelne neue Zweige der Fischverarbeitung entwikkelt hat.

**Pottlitz** - Aufbau aus Gemeinschaftsgeist. - Dtsch. Fischwirtsch., I, 33, 565-568. Berlin (1934). **b - 1366**

Betrachtungen eines Grosshändlers zu den Aufgaben der deutschen Fischwirtschaft.

**Schimpf P.** - Der Entwurf der neuen Lieferungsbedingungen im Urteil des Einzelhandels. - Dtsch. Fischwirtsch., I, 4, 65-66. Berlin (1934). **b - 1367**

Eine Stellungsnahme der Fachschaft des Dresdener Fischhandels zu einzelnen Paragraphen des Entwurfes in Bezug auf den Fischkleinhandel.

**Schroeder Robert** - Musterfischladen - Musterfischhandel. - Dtsch. Fischwirtsch., I, 24, 383-384. Berlin (1934). **b - 1368**

Zur Eröffnung des Musterladens des Berliner Fischhandels.

**Steffen Walther** - Nur Qualität und Marktregelung können den Salzherings-Verbrauch wieder steigern. - Dtsch. Fischwirtsch., I, 2, 31. Berlin (1934). **b - 1369**

Der Rückgang des Verbrauches als eigentliche Ursache der augenblicklichen Absatzschwierigkeiten für die deutschen Salzheringe; Bedeutung der Marktregelung für die Zukunft der deutschen Treibnetzfischerei.

**Steffen Walther** - Wettbewerbsrecht im Lichte nationalsozialistischer Wirtschaftsauffassung. - Dtsch. Fischwirtsch., I, 21, 333-334. Berlin (1934). **b - 1370**

Stellungsnahme der national-sozialistischen Regierung angesichts der verschiedenen Formen des Wettbewerbes.

**Weinstein H. W.** - Modern Fish Distribution. - Fish. Gaz., LI, 7, 34. New York (1934). **b - 1371**
Author shows that the most efficient and reliable method for fish distribution is a combination of both truck and rail.

**Zhilinskij A.** - Réconstruction de l'industrie de la chasse aux animaux marins du Nord (En russe). - Za Rybn. Ind. Severa, 4, 49-54. Leningrad (1933). **b - 1372**

**An.** - Recommendations of Manitoba Fish Commission Are Far Reaching. - Canad. Fisherm., XXI, 1, 10-11. Gardenvale, Que. (1934). **b - 1373**
Control of production and cold storage plants and licensing of fish dealers.

**An.** - Vereinheitlichung der Fischereiverwaltung im Reich und in Preussen nunmehr durchgeführt. - Dtsch. Fischwirtsch., I, 27, 465-466. Berlin (1934). **b - 1374**
Berufung des Ministerialrates Dr. Eichelbaum in das Preussische Landwirtschaftsministerium, womit in der Spitze die Sachbearbeitung der Fischereiangelegenheiten und die Fischverwaltung im Reich und zunächst in Preussen vereinigt worden ist. Die Aufgaben der neuen Verwaltung.

**An.** - Pacific Coast Dealers Meet to Organize. - Fish. Gaz., LI, 2, 8. New York (1934). **b - 1375**
Letter received by the magazine from Bart A. Ghio which gives an idea of the aims of the meeting held in San Francisco, February 5 and 6, 1934, which is primarily to co-ordinate the activities of regional fisheries groups on the Pacific Coast and which will cover all wholesale fresh, salt and smoked fish dealers.

**An.** - Plan to Unify State and Federal Fish Policy. - Fish. Gaz., LI, 5, 16. New York (1934). **b - 1376**
Brief account of the meeting held on April 23, 1934 in St. Louis, Mo., by a formation of a National Council of Commercial and Game Fish Commissioners for the purpose of formulating a program to coordinate and unify the Federal and State fisheries administrations.

**An.** - Fishing Industry's Progress Steady and Significant. 2 ills., Fish. Gaz., LI, 7, 14-18. New York (1934). **b - 1377**
A retrospective gaze backward of the condition of the fishing industry in 1933-34. Production, plenty of modernization, organization activity, preparation, distribution : glass and paper containers, tin and fibreboard, public education. A look into the future.

**An.** - Effects of the Strike on Pacific Coast Fishing. 1 ill., Fish. Gaz., LI, 9, 7 & 14. New York (1934). **b - 1378**
Account of the longest labour strike which had threatened to upset fish canning activity on the Pacific coast ; damage to fishing interest in the Seattle sector, in California and Oregon.

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## *Pecuniaria fides piscatoria - Conditio oeconomica.*

**Frenck Karl** - Not- und Schicksalsgemeinschaft der deutschen Fischwirtschaft. - Dtsch. Fischwirtsch., I, 6, 93-94. Berlin (1934). **b - 1379**
Schilderung der derzeitigen Lage der deutschen Küstenfischerei innerhalb der Fischwirtschaft. Notwendigkeit einer deutschen Fischwirtschaft unter fester einheitlicher und autoritärer Führung.

**Giese A. R.** - Ein Jahr der Neuorientierung in unserer Fischwirtschaft. - Dtsch. Fischwirtsch., I, 1, 1-2. Berlin (1934). **b - 1380**
Einige Angaben über die Entwicklung der deutschen Fischwirtschaft unter der Regierung des Volkskanzlers Adolf Hitler.

**Giese A. R.** - Die Deutsche Fischwirtschaft im Reichsnährstand. - Dtsch. Fischwirtsch., I, 26, 448-452. Berlin (1934). **b - 1381**
Auszüge aus dem vom Vf. auf dem Ersten Deutschen Reichsfischwirtschaftstage erstatteten Referat über alle Angelegenheiten der deutschen Fischwirtschaft.

**Hodenberg (von)** - Wirtschaftslenkung in der Seefischerei. - Dtsch. Fischwirtsch., I, 5, 74-75. Berlin (1934). **b - 1382**
Mögliche Sanierung der gesamten Seefischwirtschaft durch eine pflegliche Betreuung des Urproduktes, die Regelung der Zufuhren, der Modernisierung der Fischereiflotte und die Hebung der Qualität.

**Juergens H.** - Mehr Ordnung in der Fischwirtschaft. - Dtsch. Fischwirtsch., I, 23, 367-368. Berlin (1934). **b - 1383**
Einige Betrachtungen über die tatsächliche Preisgestaltung der fischindustriellen Erzeugnisse.

**McKay Colin** - Easy Term Loans to Fishermen. - Canad. Fisherm., XXI, 9, 7-8. Gardenvale, Que. (1934). **b - 1384**
Summary of Mr. Duff's proposal advocating government loans at low rates of interest to assist the building of fishing craft. Some information of the activity of the « Crédit Maritime » of France.

**Schulze Martin** - Die endgültige Vereinigung der Fischmehl-Wirtschaft hat begonnen. - Dtsch. Fischwirtsch., I, 24, 381-383. Berlin (1934). **b - 1385**
Regelung des Fischmehlmarktes in Deutschland durch die « Verordnung zur Aenderung der Verordnung über den Zusammenschluss der Fischindustrie » vom 4. September 1934. Ergebnisse der liberalistischen Wirtschaftsführung und die neuen Zwecke der Fischmehlindustrie im Rahmen der erneuten Fischwirtschaft.

**Steinert Hermann** - Der Aufschwung der deutschen Fischwirtschaft. 3 Tab., Fischmarkt, II, 4, 105-107. Cuxhaven (1934). **b - 1386**
Die Entwicklung der deutschen Fischwirtschaft seit dem Kriege ; Zunahme und Modernisierung der deutschen Fischdampferflotte ; Entwicklung der Erzeugung der deutschen Fischindustrie an Halb- und Vollkonserven ; Erhöhung der Fangmenge in den nördlichen Gewässern ; Die Vervierfachung des Gesamtfischverbrauches Deutschlands seit 1913 ; einige Betrachtungen über die künftige Entwicklung der deutschen Fischwirtschaft.

**Tjoetta L. L.** - Landwirtschaft und Fischwirtschaft. - Dtsch. Fisch.-Rundschau, 22, 479-479. Bremerhaven (1933). **b - 1387**
Betrachtungen über die Möglichkeit einer Zusammenarbeit und gegenseitiger Hilfe zwischen Land- und Fischwirtschaft.

**F. K.** - Russland. - Der Aufbau der Forschung für die Seefischwirtschaft. - Neues Heringsfanggebiet an der Murmanküste. 1 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 4, 179. Berlin (1934). **b - 1388**
Gründung im September 1933 des Allrussischen Wissenschaftlichen Forschungsinstituts für Seefischerei, Fischwirtschaft und Ozeanographie. Bericht über die Entwicklung der Heringsfischerei an der Murmanküste seit 1926. Auswertung der Heringsfänge.

**S.** - Wie es zur nationalsozialistischen Organisation der deutschen Fischwirtschaft kam. - Dtsch. Fischwirtsch., I, 21, 334-337. Berlin (1934). **b - 1389**
Etwas eingehende Wiedergabe der im amtlichen Jahresbe-

richt über die deutsche Fischerei im Jahre 1933 enthaltenen Ausführungen, die sich mit der Entstehung der nationalsozialistischen Organisation der deutschen Fischwirtschaft beschäftigen.

**An.** - Danzigs neugeregelte Fischwirtschaft. 1 Tab., Dtsch. Fischwirtsch., I, 9, 144-145. Berlin (1934). **b - 1390**

Statistische Angaben über die Wichtigkeit der Fischerei im Wirtschaftsleben von Danzig. Der Bestand seiner Fischereiflotte. Die Wirtschaftslage der Danziger Fischer. Einige Angaben über die Gründung des Fischversorgungsverbandes und der Marktregelung in Danzig. Die erwartete Auswirkung der Neuorganisation.

**An.** - Where and How the Fisheries Can Get Federal Loans. 1 map, Fish. Gaz., LI, 12, 11-12. New York (1934). **b - 1391**

Some clarification concerned with the agencies organized under the RFC for the sole purpose of acting as pulmotors to distressed business with special regard to the fisheries.

**An.** - Money for your Modernization. 1 photo, Fish. Gaz., LI, 13, 13-14. New York (1934). **b - 1392**

Some hints as to how obtain loans for the fishing industry through the Federal Housing Administration.

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### *Piscaturae tutela - Servitium inspectionis - Naves praesidiariae.*

**Berthaut Léon** - Le sauvetage mutuel aux flottilles de pêche. - Bull. Soc. Océanogr. France, XIII, 71, 1263. Paris (1933). **b - 1393**

Résumé d'un projet d'organisation préventive contre les cyclones et tempêtes qui surprennent les pêcheurs bretons au large des côtes, réalisée à l'aide de navires avertisseurs ultrarapides.

**Muehleisen** - Hilfe aus Seenot. - Fischmarkt, II, 2, 45-47. Cuxhaven (1934). **b - 1394**

Bericht über die Rettung der Mannschaft des norwegischen Fischereikreuzers « Fridtjof Nansen » am 21. Dezember 1933 durch den cuxhavener Fischdampfer « Eppendorf », in den nördlichen norwegischen Schären.

**An.** - See-Plane Fisheries Patrol Successful in B. C. - Canad. Fisherm., XXI, 12, 25. Gardenvale, Que. (1934). **b - 1395**

Rôle of the seaplane patrol in curbing infractions of fishing regulations in B. C.

**An.** - Der Fischereischutz der Reichsmarine, 1933. - Fischmarkt, II, 3, 78-79. Cuxhaven (1934). **b - 1396**

Zusammenfassender Bericht über die Tätigkeit in 1933 der beiden eigentlichen Fischereischutzboote « Elbe » und « Weser » und des Vermessungsschiffes « Meteor ».

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### *Societates - Proposita et activitas.*

**Bachmann Emil** - Zur Gründung des Wirtschaftlichen Verbandes des deutschen Fischgrosshandels e. V. - Dtsch. Fischwirtsch., I, 17, 272-273. Berlin (1934). **b - 1397**

Vf. geht näher auf die in n° 13 von « Deutsche Fischw. » erschienenen Ausführungen über « Die Fischhandelsfachschaften in der deutschen Fischwirtschaft » ein und behandelt sie vom Standpunkte eines Lebendfisch-Grosshändlers.

**Nelson J. Richards** - How Oyster Production Credit Associations Are Formed. - Fish. Gaz., LI, 10, 11-12. New York (1934). **b - 1398**

Some hints as to the organization of the production credit association for oystermen organized on the same general principles as those utilized by farmers.

**An.** - Erweiterung des Aufgabenkreises der Wirtschaftlichen Vereinigung der Fischindustrie Deutschlands. - Dtsch. Fischwirtsch., I, 23, 365-366. Berlin (1934). **b - 1399**

Einbeziehung der Fischmehlwirtschaft in die am 26. Januar 1934 gebildete Wirtschaftliche Vereinigung der Fischindustrie Deutschlands.

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### *Piscatores - Activitas singularum categoriarum - Mercedes - Adsistentia - Tutela - Infortunia.*

**Bland S. O.** - Federal Relief Sought for Fishing Industry. - Fish. Gaz., LI, 2, 9. New York (1934). **b - 1400**

Summary of three bills designed to aid the commercial fisheries of the U. S. introduced into Congress by Hon. S. O. Bland of Virginia, and which will extend to sea-food industry all the benefits provided in laws for the relief of persons engaged in the agricultural industry, restore oyster bottoms and provide relief of persons engaged in sea-food industry.

**Brunelli G.** - Pescatori d'Italia nei mari lontani. - Boll. di Pesca, Piscicolt. e Idrobiol., IX, 4, 529-538. Roma (1933). **b - 1401**

Importanza delle migrazioni dei pescatori nella storia dei popoli, nella colonizzazione delle terre dai remotissimi tempi della preistoria.

**Della Seta Eschilo** - Igiene e malattie professionali dei pescatori. - Boll. Pesca, Piscicolt. e Idrobiol., IX, 5, 926-943. Roma (1933). **b - 1402**

La funzione economica e sociale dell'igiene. Suddivisione in categorie, dei pescatori dal punto di vista dei provvedimenti igienici: lavoro dei pescatori. Arruolamento. Igiene individuale. Alloggio. Cura del corpo. Alimentazione. Igiene del pescatore a terra. Malattie professionali. I pesci velenosi. Pronto soccorso.

**Lacoste M. L.** - Le marin-pêcheur breton: Ce qu'il n'est pas, ce qu'il est, ce qu'il pourrait être. - Bull. Soc. Océanogr. France, XIII, 69, 1223-1232. Paris (1933). **b - 1403**

L'A. parle du marin-pêcheur breton, en exposant tout d'abord le mode, avec lequel il est décrit dans les oeuvres littéraires les plus connues, en décrivant ensuite impartiellement ses caractéristiques et en indiquant pour conclure les mesures, parmi lesquelles en premier lieu il mentionne l'enseignement professionnel et les organisations mutuelles, qui pourraient améliorer les conditions de l'existence du marin pêcheur breton.

**Wille Otto** - Wird das Gewerbe der Räucher- und Mariniermeister Handwerk? - Dtsch. Fisch.-Rundschau, 22, 471-473. Bremerhaven (1933). **b - 1404**

Betrachtungen über die Verhältnisse des Standes der Räucher- und Mariniermeister und Berechtigung ihrer Bestrebnisse zu einer Eingliederung in das Handwerk.

**An.** - Stranded Fishermen May Get U. S. Aid. 1 photo, Fish. Gaz., LI, 2, 7 & 10. New York (1934). **b - 1405**

Explanation of the purpose of the Andrew's Bill, passed by House in February 6th, 1934, which will take care of fishermen stranded on foreign shores.

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## *Leges productionis et commercii - Præscripta et decreta.*

**Bozzelli Guido** - Legislazione sulla pesca marittima. Num. fig., 194 pp., Boll. Pesca, Piscicolt. e Idrobiol., 5, 897-925. Roma (1933). **b - 1406**
I. Legislazione sulla pesca : concetto, caratteristiche, ripartizioni. Patrimonio peschereccio, sua distinzione in pubblico e privato, diritti inerenti. Carattere giuridico delle acque. II. Legislazione sulla pesca marittima. Ordinamento dei servizi. Concessioni. Diritti esclusivi di pesca. III. Tutela del patrimonio peschereccio e degli interessi e dei diritti connessi all'esercizio della pesca. Norme penali e di polizia. Vigilanza. Consorzi per la tutela della pesca. Disciplina dei mercati del pesce. IV. Varie forme di pesca marittima. V. Disciplinamento della pesca nelle nuove provincie. Provvidenze di carattere finanziario-sociale.

**Dommaschk M.** - Tierschutzgesetz und Fischhandel. - Dtsch. Fischwirtsch., I, 23, 368-369. Berlin (1934). **b - 1407**
Einige Betrachtungen über das am 24. November 1933 erlassene und am 1. Februar 1934 in Kraft getretene Reichsgesetz zum Schutz der Tiere in Bezug auf die Fischerei.

**Merres** - Grundsätzliches zur Färbung von Lebensmitteln. - Mitt. Deutsch. Seef. - Ver., XXXXIX, 6, 234-237. Berlin (1933). **b - 1408**
Kommentar der verschiedenen Gesetze, welche die künstliche Färbung von Fischwaren betrachtet. Entwürfe verschiedener Verordnungen zur Regelung der Färbung von Lebensmitteln, und des Verkehrs mit Farben inbetracht der Fischindustrie.

**Radcliff Lewis** - Oyster, Lobster and Sardine Code Have Public Hearings. - Fish. Gaz., LI, 2, 4-5 & 10. New York (1934). **b - 1409**
Brief account of public hearings held on the three subsidiary codes, the Fresh Oyster Division, the Wholesale Lobster Distributing Division, and the California Sardine Processing Division.

**Radcliff Lewis** - What the Oyster Code Means. - Fish. Gaz., LI, 4, 6 & 10. New York (1934). **b - 1410**
Analysis of the Code prepared by the Secretary of the Oyster Growers & Dealers Association.

**Sterner E.** - Einzelhandelsschutzgesetz und Fischhandel. - Dtsch. Fischwirtsch., I, 7, 109-111. Berlin (1934). **b - 1411**
Eingehender Bericht über den Einzelhandelschutz in Bezug auf den Fischhandel und die Möglichkeit die Mängel in dem Verteilungsapparat für Fische und Fischwaren zu fördern.

**Sterner E.** - Neue Ausführungsverordnung zum Einzelhandelsschutzgesetz. - Dtsch. Fischwirtsch., I, 17, 273-274. Berlin (1934). **b - 1412**
Die für die Leserschaft der « Deutschen Fischw. » in Frage kommenden Vorschriften des Gesetzes vom 12. Mai 1933 sind in der vorliegenden Notiz abgedruckt, nebst einem kurzen Kommentar derselben.

**An.** - Explains Reasons for New Maine Lobster Law. - Canad. Fisherm., XXI, 1, 12. Gardenvale, Que. (1934). **b - 1413**
Some considerations as to the recent action of the Maine Legislature in passing a double-gauge lobster law, which opens up to Maine fishermen for the first time in forty years, the opportunity of legally catching Lobsters at a minimum of nine inches in length.

**An.** - Senate Committee Reports on Pacific Fish Treaties. - Canad. Fisherm., XXI, 7, 21. Gardenvale, Que. (1934). **b - 1414**
Summary of the report of the Special Senate Committee appointed in order to study the effects of treaties relating to Pacific coast fisheries between Canada and the United States.

**An.** - Das Reich erlässt zum erstenmal Fischerei-Gesetze. - Dtsch. Fischwirtsch., I, 3, 44-46. Berlin (1934). **b - 1415**
Nach einigen allgemeinen Betrachtungen über die neue Gesetzgebung in Bezug auf die Fischerei, wird der Wortlaut der folgenden neuen Gesetze und Verordnungen veröffentlicht: Gesetz zum Schutze der Nordseeschollenfischerei, Gesetz zum Schutze der Flunderfischerei in der Ostsee, die Staatliche Anerkennung der Wesermünder Seefischkochkurse und Fischhändlerlehrgänge, die neuen Lieferungsbedingungen, die Polizeiverordnung über die Angelfischerei in den Gewässern der schleswig-holsteinischen Ostseeküste, und die Polizeiverordnung über die Schleppnetzfischerei.

**An.** - Six Regional Divisions Set Up to Administer Basic Fishery Code When Approved. - Fish. Gaz., LI, 1, 4-5. New York (1934). **b - 1416**
The future code organization as elaborated by the National Fisheries Association : division of the country in six regional areas, co-ordination of the various codes in their respective areas.

**An.** - Copeland Introduces New « Tugwell » Bill. 1 photo, Fish. Gaz., LI, 1, 6. New York (1934). **b - 1417**
Some sort of revision of the Food and Drugs Act of 1906 seems inevitable. Critics of the first attempt (S. 1944) have driven their points home so effectively that a new bill (S. 2000) has been introduced. In the present note a condensed analysis of the two proposals now before the Congress is given.

**An.** - Basic Fishery Code Goes Into Effect on March 22. 1 photo, Fish. Gaz., LI, 3, 4-6. New York (1934). **b - 1418**
Information on changes made in the basic code after its public hearing. Account of other sub-codes concerned with the fishery.

**An.** - Middle Atlantic Wholesaling Code Has Public Hearing. - Fish. Gaz., LI, 4, 5-6. New York (1934). **b - 1419**
Account of the hearing held on March 19-21, 1934 at New York and of the proposed changes.

**An.** - Lobster and California Sardine Codes Now in Effect. 1 photo, Fish. Gaz., LI, 5, 4-5 & 8. New York (1934). **b - 1420**
Summary of the contents of the new codes for N. R. A.

**An.** - Grading Difficulties Cited by Taylor. 1 photo, Fish. Gaz., LI, 6, 5-6 & 12. New York (1934). **b - 1421**
After a few remarks upon the public hearing of the master fishery code, some of the points raised by Mr. Taylor which clearly show the complexity of the establishment of standards for fishery products and indicate the major problems to be solved before grades can be established, are reported in this note.

**An.** - Mackerel, Crab and Canned Salmon Codes Signed. - Fish. Gaz., LI, 6, 11-12. New York (1934). **b - 1422**
Summary of the contents of the Atlantic mackerel Code, the Blue Crab Code and the Canned Salmon Code, which join the basic fishery-code and the sub-codes for the fresh oyster industry, wholesale lobster trade, and California sardine processing industry.

**An.** - Important Fisheries Bills Now Before Congress. - Fish. Gaz., LI, 6, 17. New York (1934). **b - 1423**
Summary of the contents of three important bills concerned with the fishing industry and more complete information of a bill, which would authorize production credit associations to make loans to oyster planters.

**An.** - The Blue Eagle Goes Fishing. 3 ill., Fish. Gaz., LI, 7, 32-34. New York (1934). **b - 1424**
Some information on the National Industrial Recovery Act and the advantage fishing industry takes from it. References for Code Articles.

**An.** - « Trade Agreements » May Lower Fishery Tariffs. - Fish. Gaz., LI, 10, 6-7. New York (1934). **b - 1425**

Some information on pacts concluded with several foreign countries, which lower duty on certain fish items. Consequences of the new trade agreements in regard of the development of foreign markets and of seafood imports from other countries.

**An.** - Divisional Code of Fair Competition for the Fresh Oyster Division. - Fish & Oyster Rep., XV, 7, 4-5 & 8. Tampa, Fla. (1934). **b - 1426**

Text of the Code.

**An.** - Supplementary Code of Fair Competition for the Fresh Oyster Industry. - Fish & Oyster Rep., XV, 10, 2-3 & 6-7. Tampa, Fla. (1934). **b - 1427**

Purpose. Definitions. Hours of Labor. Wages. General Labour Provisions. Unfair methods of competition. Coordination with other Codes, etc.

**An.** - Proposed Divisional Code of Fair Competition for the Southeastern Processing and Wholesaling Industry. - Fish & Oyster Rep., XV, 11, 2-3, 6-7 & 14. Tampa, Fla. (1934). **b - 1428**

Text of the Code.

**An.** - Proposed Divisional Code of Fair Competition for the Florida Fishing Industry. - Fish. & Oyster Rep., XV, 11, 5, 12-14. Tampa, Fla. (1934). **b - 1429**

Text of the Code.

**An.** - Erste Verordnung über den vorläufigen Aufbau des Reichsnährstandes. Vom 8. Dezember 1933. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 4, 139-141. Berlin (1934). **b - 1430**

Wortlaut der Verordnung, welche im Deutschen Reichsanzeiger und Preussischen Staatsanzeiger n° 288 vom 9. Dezember 1933 veröffentlicht worden ist.

**An.** - Dritte Verordnung über den vorläufigen Aufbau des Reichsnährstandes. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 5, 196-198. Berlin (1934). **b - 1431**

Wortlaut der Verordnung vom 13. September 1933 veröffentlicht im « Reichsgesetzbl. I S. 626 ».

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### *Vectigalium regimen - Portoria et Pretia - Tributa.*

**Eichelbaum** - Ein Jahr Zollschutz für die deutsche Fischerei. 1 Tab., Dtsch. Fischwirtsch., I, 1, 3-4. Berlin (1934). **b - 1432**

Ueberblick über die Auswirkung von der am 1. März 1933 in Kraft getretenen Verordnung über Zolländerungen vom 17. Februar 1933, welche der Fischerei den Zollschutz brachte.

**Lange G. M.** - Absatzregelung - Ausgleichskasse - Preisregulierung. - Fischmarkt, II, 12, 317-319. Cuxhaven (1934). **b - 1433**

Sinn und Zweck einer national-sozialistischen Wirtschaftsführung.

**Fachschaft Hamburg** - Auch im Einzelhandel muss die Preisbildung geordnet werden. - Dtsch. Fischwirtsch., I, 14, 222-224. Berlin (1934). **b - 1434**

Eine Erfahrung aus der Hamburger Bückling Verwertung.

**An.** - Price Spreads on Fish. - 1 table, Canad. Fisherm., XXI, 11, 11. Gardenvale, Que. (1934). **b - 1435**

Summary of a Report of the Canadian Royal Commission on Fisheries, containing an accurate and comprehensive analyse of the cost of fish from the time it is landed to its final purchase by the consumer.

**An.** - Northern Oyster Growers Hard Hit by Price Slump. - Fish. Gaz., LI, 5, 6 & 16. New York (1934). **b - 1436**

Extracts from various reports of the 1933-34 oyster season received by the « Fishing Gazette » which emphasize that the new oyster code would help to improve business in 1934-35 season.

**An.** - Can Fish Be So Graded That Consumers Will Benefit ? - Fish. Gaz., LI, 5, 7-8. New York (1934). **b - 1437**

Summary of a report of the Consumer's Advisory Board of the N. R. A. recommending that the national code authority set up without delay grading studies of all kinds of fishery products, and declaring that establishment of standards will materially assist in increasing the per capita consumption, now only 15 pounds per annum.

## Biologia piscatui applicata - Hydrographia et Hydrologia locorum ad piscandum - Studia et inquisitiones - Congressus - Conventus - Doctrina.

### *Instituta, Stationes, Laboratoria, Musea - Commissiones - Relationes publicae - Biographiae.*

**Bell Frank T.** - United States Bureau of Fisheries. - Trans. Amer. Geoph. Union, 15th Ann. Meet., Res. Counc., Part I, 230 Washington, D. C. (1934). **b - 1438**

Brief summary of the main oceanographic activities of the Bureau.

**Bigelow H. B.** - Travaux Scientifiques du Conseil International des Pêcheries de l'Amérique du Nord. (En angl.). - Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXXVII, Annexe, 61-64. Copenhague (1934). **b - 1439**

Report of the President of the North American Council on Fishery Investigations of the work carried on by : A. United States of America (Woods Hole Oceanographic Institution and United States Bureau of Fisheries). B. Canada. C. Newfoundland (Résumé of Establishment, Functions, and Operations of the Biological Laboratory of the Fishery Research Commission, St. John's, Newfoundland, 1931-1932. by Harold Thompson). D. France. E. International Ice Patrol Service.

**Bonde (von) C.** - Eleventh Annual Report of the Fisheries and Marine Biological Survey for the Year Ending 31st December 1933. (In Engl. & Dutch.). 1 fig., 4 tabl., 6 pl., 5 charts, Union of S. Africa Fish. & Mar. Biol. Survey, 6-41. Pretoria (1934). **b - 1440**

I. Survey operations ; 1. Cape Area survey. January-March, 1933. 2. South and South-East coast survey, April-August and November-December, 1933 ; II. Deep-sea fisheries (trawling) ; III. Inshore fisheries ; IV. Fishing harbours survey and development ; V. Fishery legislation ; VI. Statistics ; VII. Conclusion. Statistic statements regarding the catch and manufacture of fish and other marine products, in the single provinces of South Africa.

**Dannevig Alf** - Beretning for Flødevigens utklekningsanstalt for terminen 1931/1932. - Årsber. v. Norg. Fisk. 1932, 1, 96-98. Bergen (1934). **b - 1441**

Expériences avec des homards et des morues. Travaux exécutés, expéditions, etc.

**Hardy A. C.** - Science and the Fisheries. An Account of a New Research Department. 6 figs., Progress, N° of Jan., 3-8. Lever Broth. Ltd. London (1934). **b - 1442**

A brief account of what science is doing to find out the causes underlying the fluctuations in the fisheries and to help the industry towards a more regular and economic working, with special reference to the experiments carried on in the Institute for Fisheries Research at the University College of Hull in the study of the relationship of the plankton to the fisheries.

**Ivanov I. M.** - Travaux concernant la chasse et la pêche de la station de Recherches sur la Terre de François-Joseph (En russe). - Zemlevedenije, XXXV, 4, 363-364. Moskva-Leningrad (1933). **b - 1443**

**Malpas A. H.** - Administration Report of the Acting Marine Biologist for the Year 1933. - Ceylon Govmt. Press, G3-G7. Colombo (1934). **b - 1444**

Introduction. Pearl Fishery (Gulf of Mannar). Windowpane oyster fishery (Lake Tamblegam). Chank fisheries. The local fishing industries. Miscellaneous.

**Motherwell I. A.** - Rapport du Surintendant-Chef de la Division Occidentale des Pêcheries (Colombie Britannique) - 1932. 1 graph, 11 tabl., 20 rel., 3-ème Rapp. Ann. Pêch. Canada, 1932-33; App. 1, 53-85. Ottawa (1934). **b - 1445**

Aperçu général des conditions des pêcheries de la Colombie Britannique en 1932. Sockeye. Saumon de printemps et Steelhead. Coho. Saumon rose. Saumon chum. Flétan. Hareng. Célan. Baleines. Peaux de Phoques à fourrure. Service de surveillance. Destruction des Otaries. Pêche sportive. Farine et huiles de poisson. Règlements. Contrôle alimentaire des conserves de saumon. Service du génie. Cours d'enseignement technique pour les agents de pêche. Convocations annuelles des surveillants de pêche. Personnel. Mortalité. Inspection des frayères.

**Ninni Emilio** - Relazione a S. E. l'on. A. Marescalchi, Sottosegretario di Stato per l'Agricoltura e per le Foreste sulla riproduzione artificiale degli Astici e delle Aragoste. - Boll. di Pesca, Piscicolt. e Idrobiol., X, 3, 335-343. Roma (1934). **b - 1446**

Per evitare la sistematica annua diminuzione degli Astici e delle Aragoste e incrementarne la produzione attorno al gruppo delle isole Lagostane, l'A. propone misure restrittive per la pesca, protettive e promotrici per la riproduzione.

**O' Malley Henry** - Report of the Commissioner of Fisheries for the Fiscal Year Ended June 30, 1932. 1 table, U. S. Dpt. of Comm. Bur. of Fish., iii-xxii. Washington, D. C. (1932). **b - 1447**

International relations. Domestic relations. Alaska fisheries service. Alaska fur-seal service. Propagation and distribution of food and game Fishes. Statical surveys. Technological investigations. Biological fishery investigations. Law enforcement division. Vessel notes. Appropriation.

**Pearson Joseph** - Administration Report of the Marine Biologist for the Year 1932. - Ceylon Govmt. Press, G3-G12. Colombo (1933). **b - 1448**

Introduction: a summary of the results of the survey of Pedro Bank and of a new survey of pearl banks, some other developments of the activity of the Department of Marine Biology of the Colombo Museum. Pearl fishery (Gulf of Mannar). Window-pane oyster fishery (Lake Tamblegam). Chank fisheries. The local fishery industries. Miscellaneous.

**Raj B. Sundara** - Administration Report for the Year 1931-1932. - Madras Fish. Dpt., 1-88. Madras (1933). **b - 1449**

Part I: Activities of the Department: Marine Fisheries. Minor Marine and Estuarine Fisheries. Inland Fisheries. Crown Monopolies (Pearl and Chank Fisheries). Biological Specimen Supply. Anti-malaria work. Socio-economic work. Propaganda. Part II: Finance. Part III: Staff and Equipment: Statement of expenditure and revenue of the Fisheries Department for 1931-32.

**Raj B. Sundara** - Administration Report for the Year 1932-33. tables, Madras Fish. Dpt., 1-74. Madras (1934). **b - 1450**

Part I: Activities of the Department. I. Marine Fisheries II. Minor marine and estuarine fisheries. III. Inland fisheries; IV. Crown Monopolies (Pearl and Chank fisheries); V. Biological specimen supply; VI. Anti-malarial work; VII. Socio-economic work; VIII. Propaganda; IX. Fishery Legislation; X. Publications. Part II: Finance. Part III: Staff and equipment.

**Raj B. Sundara** - Administration Report for the Year 1933-34. - Madras Fish. Dpt., 1-83. Madras (1934). **b - 1451**

Part I. Activities of the Department: Marine fisheries. Minor marine and estuarine fisheries. Inland fisheries. Crown Monopolies (Pearl and chank fisheries). Biological specimen supply. Anti-malarial work. Socio-economic work. Propaganda. Fishery legislation. Publications. Part II: Finance. Part III: Staff and equipment.

**Reibisch J.** - Bericht der Preussischen Kommission zur wissenschaftlichen Untersuchung der deutschen Meere in Kiel über ihre Tätigkeit im Rechnungsjahre 1932. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 4, 136-139. Berlin (1934). **b - 1452**

Zusammenfassende Wiedergabe des Inhaltes des erwähnten Berichtes mit besonderer Berücksichtigung der biologischen Arbeiten an Meerestieren, der Untersuchungen von Prof. A. Remane über 1. die biocoenotische Erforschung der Bodenfauna und 2. die biologischen Wirkungen der Ausmündung der Kieler Kanalisation bei Bülck, der Fahrten zur Feststellung des Laichens der Nutzfische mit treibenden Eiern, der bakteriellen Untersuchungen, der Untersuchungen an Steigaalen, der fischereibiologischen Bearbeitung der Schlei, der biologischen und hydrographischen Untersuchungen im Nord-Ostsee-Kanal, der Untersuchungen der « ansteckenden und toten Gründe » und der Arbeiten auf botanischem Gebiet.

**Skogsberg Tage** - Oceanographic Work at the Hopkins Marine Station, Stanford University, for the Year 1932. - Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, Nat. Res. Counc., 221-222. Washington, D. C. (1933). **b - 1453**

Stations established and working over of the data gathered. Remarkable phenomenon worthy of mention has been the capture of albacore for the first time in the history of the fishing industry of Monterey Bay. Intimate relation of the pronounced irregularities of several fisheries along the California coast to hydrographical changes.

**Sutherland D. H.** - Rapport du Surintendant-Chef des pêcheries, Division de l'Est. 11 tabl., 3-ème Rapp. Ann. Minist. Pêch. Canada, 1932-33. App. 1, 32-53. Ottawa (1934). **b - 1454**

Valeur générale de la pêche canadienne en 1932. La pêche du homard, de la morue, de l'aiglefin, du hareng, du saumon, du maquereau, d'autres Poissons. Nouvelle Ecosse: Pêche sportive. Service de surveillance de pêcheries. Service de police des pêcheries. Expositions et exhibitions de pêche. Service de transport du homard. Service de cueillette de la boitte. Nouveau Brunswick. Iles-de-la-Madeleine. Considérations générales: Pêche illicite. Inspection des fabriques de conserves et des conserves de poisson. Inspection des récipients de poisson saumuré et des établissements de traitement du poisson. Travaux éducatifs. Conditions générales du négoce de poisson. Union Générale des Pêcheurs Maritimes.

**Thompson Harold** - Fishery Research Commission, Labrador and Newfoundland. - Trans. Amer. Geoph. Union, 15th Ann. Meet., Nat. Res. Counc., Part I, 226-227. Washington, D. C. (1934). **b - 1455**

Temperature- and salinity-stations. Drift-bottles returns. Plankton-tows and trawls. Salmon-catches and physical conditions at sea. Distribution of cod eggs and larvae in 1933.

**Thompson W. F.** - International Fisheries Commission. - Trans. Amer. Geoph. Union, 15th Ann. Meet., Nat. Res. Counc., Part I, 216-217. Washington, D. C. (1934). **b - 1456**

Brief account of the activity of the International Fisheries Commission, established for the preservation of the Pacific Halibut fishery and created by treaty between the United States and Canada. Favorable results of the regulation of the fisheries introduced by the Commission.

**Willer A.** - Die Arbeiten der DWK. in der Seefischereistation Neukuhren des Fischereiinstituts der Universität Königsberg (Pr.) 1930-1934. 1 Abb., Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VII, 3, 351-361. Leipzig (1934). **b - 1457**

Ziel dieser Arbeiten. Untersuchungen in Bezug auf Alter und Wanderwege der Lachse; Markierungsversuche mit Meeresforellen; Vergleich zwischen den hydrologischen Verhältnissen des Kurischen Haffes und denen des Frischen Haffes; Nährfische der Lachse.

**Biological Board of Canada** - Fisheries Experimental Station (Atlantic) Halifax, N. S., 1933. - Ann. Rep. Biol. Board Canada, 1933, 43-49. Ottawa (1934). **b - 1458**

Account of the activities of the Station for 1933, divided into two parts, research in problems connected with the fishing industry, and educational work. Publications.

**Biological Board of Canada** - Fisheries Experimental Station (Pacific), Prince Rupert, B. C. - Ann. Rep. Biol. Board Canada, 1933, 104-107. Ottawa (1934). **b - 1459**

The Staff of the Station during 1933. Work of the Station on the improvement of existing processes and products, the discovery of new processes and products, and the gathering and dissemination of knowledge concerning fisheries products. (the preservations of fresh fish vitamin assays, oil chemistry, the freezing and storage of fish, refrigeration, dry rot in fishing vessels). Publicity and education. Publications.

**Commissioner of Fisheries** - Fisheries Commissioner's Report for 1933. - Rep. Commiss. Fish. for 1933., figs. & tabl., 5-79. Victoria, B. C. (1934). **b - 1460**

Values of fisheries and standing of Province. Persons engaged and capital invested. Species and value of fish caught in British Columbia. Salmon-pack in British Columbia in 1933. Salmon-pack by districts 1933. Halibut production. Fish oil and meal production. Pilchard and Herring investigation. Contribution to the life of the Sockeye-Salmon (Digest). The Halibut investigation. 11 Appendices.

**Ministère des Pêcheries** - Troisième Rapport Annuel du Ministère des Pêcheries (Soixante-dixième Rapport Annuel des Pêcheries du Canada). Année 1932-33. fig., tabl., Impr. de S. M., 5-209. Ottawa (1934). **b - 1461**

Sommaire des pêches, 1932. Négoce en produits de pêche avec l'étranger. Service des contrôles alimentaire et sanitaire du poisson. Enseignement de pêche professionnel et technique. Service de transport du homard. Service de renseignements sur les pêcheries. Travaux tendant à accroître la consommation domestique du poisson canadien. Pisciculture. Recherches sur les Huîtres et les Pétoncles. Travaux de l'Office de Biologie du Canada. Prime à la pêche. Chasse pélagique des Phoques à fourrure. Travaux de la Commission Internationale des Pêcheries ou Commission du Flétan du Pacifique. Travaux du Conseil nord-américain pour l'Exploration de la Mer. Travaux de la Commission Internationale des pêcheries de Passamaquoddy. Suivent 11 Appendices.

**Ministère des Pêcheries** - Etat des dépenses et des recettes afférentes au Service des Pêches, par province, 1867 à 1932-33. Gouvernement du Canada. tabl., 3-ème Rapp. Ann. Minist. Pêch., 1932-33, App. 8, 186-209. Ottawa (1934). **b - 1462**

Données financières sur les recettes et dépenses des différentes sections du Service des Pêches et des Institutions qui en dépendent.

**Passamaquoddy Commission** - Investigations by the Passamaquoddy Commission. - Woods Hole Oceanogr. Instit., Rep. 1930-32, 43-44. Woods Hole, Mass. (1933). **b - 1463**

Information on the transfer of some members of the staff of the International Passamaquoddy Fisheries Commission from their summer laboratory at St. Andrews. Brief summary of the field work made in the Bay of Fundy and Gulf of Maine.

**An.** - Le mouvement océanographique. - Bull. Soc. Amis Inst. Océanogr., XV, 45, 1-2. Le Havre (1933). **b - 1464**

Bref compte rendu des travaux exécutés au Laboratoire de l'Office Scientifique et Technique des Pêches Maritimes à Paris, à la Station de l'Office, à Boulogne-sur-Mer et à celle de Lorient.

**An.** - Der Reichsseefischausschuss berichtet über die geleistete Arbeit. - Dtsch. Fischwirtsch., I, 10, 157-158. Berlin (1934). **b - 1465**

Zusammenfassende Wiedergabe des Jahresberichts des Reichsausschusses zur Förderung des Seefischverbrauchs für die beiden Jahre 1932/33 und 1933/34, welcher einer besonderer Beachtung würdig ist, weil er einen Tätigkeitsbericht über die im letzen Jahr unter der nazionalsozialistischen Führung geleistete Arbeit darstellt.

**An.** - Laboratoire de Lorient. - Pêche Marit., Pêche Fluviale et Piscicult., XVII, 269-270. Paris (1934). **b - 1466**

**An.** - Reports of the Newfoundland Fishery Research Commission. I. Introduction. - Rep. Newfoundland Fish. Comm., Ann. Rep., II, 2, 7-11. Plymouth (1934). **b - 1467**

Brief account of the activity of the Laboratory of the Newfoundland Fishery Research Commission, with special reference to cod liver oil investigations, the blending of slightly oily and non-oily fish-meals, the preparation of cod liver oil derivatives, the artificial drying of salt cod fish, the analysis of Atlantic salmon. Account of the biological work performed by the Commission which was based chiefly on the survey cruises of the research trawler.

**An.** - Cooperative Research of the Bureau of Fisheries and the University of Maryland. - Science, LXXX, 2072, 240. New York (1934). **b - 1468**

Project of cooperative investigations that will be made by these two Institutes in order to promote the development of the fishery resources of the Chesapeake Bay area.

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## *Biologia piscatui applicata - Piscicultura - Variatio piscium turmarum - - Tutela piscium juvenum - Pathologia - Mortalitas - Migrationes et marchatura - Nomenclatura.*

**Alm Gunnar** - Bemerkungen zu der Lachszuchtfrage. - Rapp. Pr.-Verb. Cons. Expl. Mer, XCI, 17-18. Copenhague (1934). **b - 1469**

Vorschriften beim Aussetzen der Brut. Beispiele ausgeführter Versuche. Neue Vorschläge besonders in Bezug auf die Lachszucht der Ostseestaaten.

**Bruce Charles** - Service du Génie. Rapport de.........., Ingénieur de Pêche. - 3-ème Rapp. Ann. Pêch. Canada, 1932-33, App. 4, 161-170. Ottawa (1934). **b - 1470**

Construction d'échelles à Poissons et curage des rivières (Nouvelle-Ecosse, Nouveau-Brunswick, Colombie Britannique). Etablissements piscicoles. Emplacements piscicoles et pisciculture coopérative. Office de Biologie du Canada : Considérations générales. Recherches sur les Pétoncles. Amodiation des fonds ostréifères. Travaux de Bureau.

**Brunelli Gustavo** - La coltivazione degli stagni salsi e la vallicoltura. (III Corso magistrale marittimo peschereccio). - Tip. A. Manuzio. Ist. Poligr. dello Stato Edit. Roma (1933). **b - 1471**

Concetto di vallicoltura quale pratica peschereccia. Distinzione delle valli in: arginate, semi-arginate e aperte, e loro rendimento. Criteri del moderno orientamento verso la bonifica peschereccia e valliva, la quale poggia sopra precise conoscenze idrauliche e biologiche relative al regime delle acque, all'anofelismo e allo sfruttamento piscicolo, e rappresenta una delle più solide conquiste della collaborazione degli studi idraulici, sanitari e naturalistici.

**Brunelli Gustavo** - La coltivazione degli stagni salsi e la vallicoltura. - Boll. Pesca, Piscicolt. e Idrobiol., IX, 5, 791-798. Roma (1933). **b - 1472**

Cenni sulla vallicoltura e sulla importanza del suo odierno sviluppo nei riguardi della scienza ittiologica, malariologica e di bonificazione. Caratteristiche della fauna dei fondi vallivi in rapporto al particolare ambiente lagunare. Distinzione delle valli in arginate, semi-arginate e aperte. La bonifica peschereccia come una delle più solide conquiste della collaborazione fra studi idraulici, sanitari e naturalistici.

**Brunelli Gustavo** - La coltivazione degli stagni salsi e la vallicoltura. - Ital. Pescher., 1/2, 9-10. Roma (1934). **b - 1473**

Importanza della vallicoltura nei riflessi della scienza ittiologica, di quella malariologica e delle bonifiche. Illustrazione di questa tecnica peschereccia nei suoi solidi fondamenti biologici, quali derivano dai nostri studi lagunari. La vallicoltura, bonifica igienica. Si dimostra che per conservare sana la valle, basta regolare la salsedine e provvedere al tempestivo ricambio delle acque.

**Bückmann A.** - Die angewandte Meeresforschung an der Biologischen Anstalt. *a*) Fischereiforschung. - Der Biologe, III, 179-180. München (1934). **b - 1474**

**Chiappi T.** - Raccolta, semine ed allevamento di pesci marini nelle acque interne (III Corso magistrale marittimo peschereccio). - 11 pp., Tip. A. Manuzio, Ist. Poligr. dello Stato Edit. Roma (1933).

(—) Boll. Pesca, Piscicolt. e Idrobiol., IX, 5, 799-808. Roma (1933). **b - 1475**

Specie di pesci di origine marina allevate in acque interne. Allevamenti in acque interne. Montata del novellame. Quantità seminate. Accrescimento di muggini. Cenno sulla biologia dell'anguilla e sulla sua diffusione spontanea nelle acque interne e nei laghi alpini. Montata naturale e cattura delle cieche, trasporto e semina delle medesime. Cattura e commercio dell'anguilla.

**Chiappi T.** - La pesca e la piscicoltura nella provincia di Roma. Aspetti e Probl. della Città e prov. di Roma, 113-138. Roma (1933). **b - 1476**

Dopo un rapido cenno sulla piscicoltura primitiva, e sulla pesca di mare nel litorale romano e nei più grandi stagni litoranei, l'A. passa ed esaminare la pesca nelle acque interne della provincia che hanno particolare importanza per la piscicoltura.

**Clemens W. A. & Clemens Lucy S.** - Contributions to the Life-History of the Sockeye Salmon (nº 19). 5 figs., 35 tabl., Rep. Comm. Fish., 1933, App., 12-47, Victoria, B. C. (1934). **b - 1477**

Analysis of the runs of sockeye salmon of 1933 preceeded by graphs showing the pack records from the early beginnings of the fishery to date and the calculated trends. The pronounced downward trends for the Fraser, Skeena, and Nass Rivers are noteworthy. For each run are given : the general characteristics, the age-groups, the lengths and weights, the distribution of the sexes and the changes during the run and their probable significance.

**D' Ancona Umberto** - Ulteriori osservazioni sulle statistiche della pesca dell'Alto Adriatico. - 8 tab., R. Comit. Talassogr. Ital., Mem. Nº CCXV, 1-27. Venezia (1934). **b - 1478**

L'A. prima discute il valore fondamentale delle obiezioni mosse a un suo lavoro precedente (R. Comit. Talassogr. Ital. N. CXXVI, 1926), nel quale egli giungeva alla conclusione che la stasi peschereccia del 1914-18 aveva temporaneamente spostato l'equilibrio esistente tra le diverse specie animali dell'Alto Adriatico, favorendo, fra quelle economicamente importanti, le più voraci a danno delle più inermi. Egli passa poi all'esame critico dei dati statistici raccolti sui mercati di Trieste e Fiume fino al 1932, in base al quale giunge di nuovo alla conclusione che « pare verosimile che nell'Alto Adriatico, nel periodo finale della guerra si sia avuto un non comune aumento di Selacei, fatto di cui si può attribuire la causa alla sospensione della pesca ».

**Duff D. C. B.** - *Octomitus*. - Ann. Rep. Biol. Board Canada, 1933, 76. Ottawa (1934). **b - 1479**

Results of an histological examination of a number of sockeye-salmon fry and cutthroat trout infested by *Octomitus salmonis*, which is undoubtedly the most serious protozoan parasite of Salmonoids frequently causing very great mortality among young fish at hatcheries.

**Duff D. C. B.** - Furunculosis. - Ann. Rep. Biol. Board Canada, 1933, 75-76. Ottawa (1934). **b - 1480**

Brief account of the results of studies of the causative agent of furunculosis conducted in the Department of Bacteriology of the University of British Columbia, chiefly confined to an investigation of the viability of *Bacillus salmonicida* in polluted water.

**Duff D. C. B.** - Tolerance of Salmon Fry to Disinfectant Solutions. - Ann. Rep. Biol. Board Canada, 1933, 76. Ottawa (1934). **b - 1481**

Results of the exposure of batches of 50 healthy sockeye salmon fry, from 50 to 60 cm. in length to varying concentrations of disinfectant in 1.5 liters of hatchery water.

**Ehrenbaum E.** - Die Heringsuntersuchungen der Deutschen Wissenschaftlichen Kommission für Meeresforschung in der Fischereibiologischen Abteilung zu Hamburg 1930-1933. 1 Abb., 6 Diagr., Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VII, 3, 213-232. Leipzig (1934). **b - 1482**

Diese Tätigkeit umfasst wie in der voraufgegangenen Berichtsperiode hauptsächlich das Studium des Trawlheringsfanges und den damit zusammenhängenden wissenschaftlichen Fragen, Fangstatistik, Bericht über die Leistungsfähigkeit der Fahrzeuge, das Studium und die Kartierung der von der deutschen Treibnetzfischerei auf Heringe benutzten Fangplätze. Einzelne Berichte für jedes Jahr (1930, 1931, 1932 und 1933).

**Fischer E.** - Die Arbeiten der DWK., Abteilung Deutscher Seefischereiverein, 1930-1933. 7 Abb., 2 Karten, Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VII, 3, 241-268. Leipzig (1934). **b - 1483**

1. Plattfische. A. Die Untersuchungen an den Märkten. B. Spezialarbeiten über Plattfische. 2. Untersuchungen über den Jungplattfischbestand O- und 1-Gruppe. 3. Hering. (Heringslarven, Rassenuntersuchungen). 4. Sprotten. 5. Salmoniden (Die Aussetzung von Bachforellen in die Ostsee, Lachs und Meerforellen). 6. Sardellen in der Ostsee. 7. Aalsterben in der Ostsee. 8. Die deutsche Kattegat-Fischerei. Arbeiten.

**Harrison A. Cecil** - Black Bass in the Cape Province. Report on the Early History of the Acclimatization of American Largemouth Black Bass (*Micropterus salmoides*, Lacépède) in the

Cape Province. 3 tabl., 5 pl., 2 graphs., Fish. & Mar. Biol. Survey, Rep. Nº 11, Invest. Rep. 4, 1-92. Pretoria (1934). b - 1484

Origin of the Jonkershock Stock (February, 1928). Characteristics, habits and life-history of Largemouth black bass. A study of Paarde Vlei, Somerset West. Scale-reading. Black bass in other Cape Waters. Appendix A: Natal. Appendix B: Orange Free State.

**Hart J. L.** - Pilchard Sampling. - Ann. Rep. Biol. Board Canada, 1932, 89. Ottawa (1933). b - 1485

1) For length. This investigation was undertaken to discover the way in which the pilchard population reacts to the strain placed upon it by the fishery. 2). For race. This phase of the pilchard investigation has been concentrated on the vertebra counts for pilchards captured in various localities in an attempt to determine the extent of the migrations of the species.

**Higgins Elmer** - Fishery Biology. Its Scope, Development, and Applications. - Quart. Rev. Biol., IX, 3, 275-291. Baltimore, U. S. A. (1934). b - 1486

It is the purpose of this paper to aid in clarifying our concepts of that important field of scientific endeavor variously known as fishery science, or more properly fishery biology. Scope. Definition. Aims and point of view. Historical development and organization. Overfishing. Fluctuations and predictions. Fishery management.

**Higgins Elmer** - Progress in Biological Inquiries 1933. tabl., U. S. Dpt. Comm., Bur. Fish., Append. III Rep. Comm. Fish., 1934, 314-383. Washington, D. C. (1934). b - 1487

Introduction: the work of the Division of Scientific Inquiry concerning the fisheries. State cooperation. Publications. North and Middle Atlantic fishery investigations. South Atlantic and Gulf Fishery investigations. Pacific coast and Alaska fishery investigations. Great Lakes fishery investigations. Cooperative investigations, inferior lakes of Wisconsin. Oyster investigations. Investigations on aquiculture. Cooperative studies of the nutritional requirements of trout. Limnological investigations in the Rocky Mountain region in the interest of fish stocking. Mussel investigations and pollution studies in interior waters. Independent activities of the Fishery Biological laboratories. Appropriations.

**Järvi T. H.** - Die Fischzucht zur Unterstützung des Lachsbestandes. Die bisherigen Erfahrungen in Finnland. 1 Karte, 13 Tab., Rapp. Pr.-Verb. Cons. Expl. Mer, XCI, 19-25. Copenhague (1934). b - 1488

Bericht über die Tätigkeit der seit 1906 in Finnland bestehenden Brutanstalten und der damit verbundenen Teichwirtschaft. Der Vf. misst den Brutanstalten und der Teichwirtschaft nur eine sekundäre Bedeutung bei, indem sie die in der Natur stattfindenden Erneuerung des Bestandes unterstützen und ausgleichen.

**Lissner H.** - Der Einfluss des « Nordschottischen Frühjahrsherings » auf die Heringsbestände des Fladengrundes. 3 Tab., Rapp. & Pr.-Verb. Cons. Expl. Mer, LXXXV, Append., 19-21. Copenhague (1933). b - 1489

In der vorliegenden Notiz gibt der Vf. einen Nachweis der Richtigkeit seiner Anschauung, dass die Grundlage der Heringsfischerei auf dem Fladengrunde der Herbsthering bildet, dessen Schwärmen Frühjahrslaicher in jährlich und vielleicht auch jahreszeitlich wechselnden Proportionen beigemischt sind. Die Unterlage seines Beweises bietet das von Hamburg aus den Jahren 1931 und 1932 gesammelte und auf seine Rassenzugehörigkeit hin analysierte Material an Trawlheringen vom Fladengrunde.

**Meseck G.** - Verträgt der lebende Fisch beim Umsetzen Temperaturunterschiede ? - Dtsch. Fischwirtsch., I, 35, 607. Berlin (1934). b - 1490

Betrachtungen über die Empfindlichkeit der Fische gegen zu grosse Temperaturstürze an Hand von Angaben von Hofer, Schäperclaus, Neubaur, Nolte, Mojdowicz und Kempter.

**Pearson J. C.** - Marking Fish. - Louisiana Conservation Rev., IV, 2, 30-33. (?) (1934). b - 1491

**Peters N.** - Der Angelhaken als Hilfsmittel bei der Erforschung von Fischwanderungen. - Fischmarkt, II, 11, 297-299. Cuxhaven (1934). b - 1492

Nach einer kurzen Einleitung berichtet Vf. über einige Ergebnisse der Anwendung der Angelhakenmethode zur Erforschung der Wanderungen von Thunfisch und von Lachs an Hand einer Veröffentlichung von Willer und Quednau « Untersuchungen über den Lachs I und II » Ztschr. f. Fisch., 1931-32.

**Pryce-Tannat T. E.** - Artificial Propagation of Salmon. - Rapp. Pr.-Verb. Cons. Expl. Mer, XCI, 27-28. Copenhague (1934). b - 1493

Some conclusions as to the value of artificial propagation and indications for the selection of a river suitable for experiments made by the Committee appointed in 1930 to consider this problem.

**Reibisch J.** - Die Forschung im Dienste der Fischwirtschaft. - Dtsch. Fischwirtsch., I, 29, 503-504. Berlin (1934). b - 1494

Bericht über die Arbeiten der Preussischen Kommission zur wissenschaftlichen Untersuchung der deutschen Meere in Kiel, 1933/34, mit besonderer Berücksichtigung der Untersuchungen über das Blut der Scholle aus Nordsee, Beltsee und Ostsee, über den chemischen Sinn der Qualle, der Erforschung der Bodenbiozoenosen der Kieler Bucht, der Untersuchungen über die Tierwelt des Küstengrundeswassers, der Bearbeitung oekologischer Einzelprobleme im Raume der Kieler Bucht, der Untersuchungen der Meeresvegetation auf soziologischer Grundlage, der fischereibiologischen Untersuchungen, und der besonderen Fahrten zur Feststellung von Eiern und Larven der Nutzfische.

**Rodd J. A.** - Pisciculture. Nombr. tabl., 3-ème Rapp. Ann. Minist. Pêch. Canada, 1932-33, App. 3, 89-160. Ottawa (1934). b - 1495

Compte rendu des opérations piscicoles exécutées sous l'égide du Ministère de Pêcheries du Canada, limitées aux suivantes provinces : Nouvelle-Ecosse, Nouveau-Brunswick, Ile du Prince-Edouard et Colombie Britannique. Activité des stations alevinales. Opérations aquicoles, comportant la multiplication des plus importants Poissons comestibles et sportifs, tant fluviaux et lacustres qu'anadromes.

**Russell E. S.** - Fishery Research : Its Contribution to Ecology. - Journ. of Ecol., XX, 1, 128-151. (1932). b - 1496

1. Organisation of fishery research in N. W. Europe; 2. Scope and methods of fishery research; 3. The census of populations and its aims; 4. Fluctuations and prediction; 5. Distribution and migrations of fish in relation to environmental factors; 6. Food chains and animal communities. Appendix: Bibliography of 65 titles mainly on work carried out in the area of investigation of the International Council for the Exploration of the Sea.

**Santucci Renato** - I risultati delle prime osservazioni sulla fauna delle acque territoriali eritree. - Rass. Econ. Colonie, XXII, 5/6, 305-324. Roma (1934). b - 1497

Ricerche condotte con lo scopo di conoscere le varie comunità biologiche più interessanti dal lato della pesca. Programma di lavori : *a*) studio fisico-chimico-biologico dei banchi a *Meleagrina* e a *Trochus ;* loro delimitazione *b*) distribuzione delle Oloturie e studio dei fondi sui quali vivono ; *c*) ricerche sui Clupeidi e sugli Scombridi ; *d*) distribuzione degli squali più comuni e osservazioni sulla loro alimentazione, sul periodo di maturità sessuale e sulle zone di pesca. Conclusioni.

**Schnakenbeck W.** - Die biologischen Grundlagen für die Fischerei in der Niederelbe. 3. Die zeitlichen Schwankungen in den Fangmengen. 1 Abb., 3 Tab., Fischmarkt, II, 6, 148-151. Cuxhaven (1934). b - 1498

(Vgl. : « Fischmarkt », 1933, H. 9 ; 1934, H. 2) Ergebnisse von vierjährigen Beobachtungen über die jährlichen Schwankungen der Fischereierträge in der Niederelbe; Kurven der Schwankungen; gründliche Verschiedenheit der jährlichen Schwankungen in zwei Gruppen von Fangplätzen; ihre Abhängigkeit von den Schwankungen in den Mengen bestimmter Fische, die sich ihrerseits wiederum nach ihrem mengenmässigen Vorkommen in den einzelnen Jahren verschieden verhalten.

**Schnakenbeck** - Neuere Beobachtungen über den Aalaufstieg. 1 Abb., Fischmarkt, II, 8, 209-210. Cuxhaven (1934). **b - 1499**

Nähere Erforschung des Aufstieges der Glasaale an Hand einer im « Zoologischen Anzeiger » Bd. 101, 1933 von W. Herold veröffentlichten genauen Beobachtung des Aalaufstieges am Morgen des 29. Mai 1932 in der Swine, welche er mit derjenigen aus der Weser (« Fischerbote », S. 1281, 1930 u. « Deutsche Anglerztg. », S. 8, 1932) vergleicht, mit besonderer Berücksichtigung der Zuggeschwindigkeit und der Berechnung der Zahl der sich im Zuge befindenden Aale.

**Voisin P.** - Les essais de reproduction artificielle. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 103-104. Paris (1933). **b - 1500**

**An.** - Preliminary Report on the Life History of the Common Shrimp. - Fish & Oyster Rep., XV, 7, 6-7; 8, 4-5; 9, 6-7; 11, 14. Tampa, Fla. (1934).

(—) See also « Fish & Oyster Rep. », XV, 6. (1933). **b - 1501**

Results of a cooperative program of study of the shrimp initiated by the United States Bureau of Fisheries and participated in by the States of Louisiana, Georgia, and Texas. Importance of the shrimp fishery, various types of fishing gears employed in this fishery, life-history of the six species of shrimp caught in the South, factors favoring shrimp-depletion and summary of the four types of regulations applicable to the shrimp fishery.

**An.** - Fishery Investigations of the Atlantic and Gulf Coasts. - Fish & Oyster Rep., XV, 8, 8 & 13. Tampa, Fla. (1934). **b - 1502**

Summary of the fishery investigations concerned with the haddock and mackerel in the New England section, with the squeteague or weakfish, the butterfish, scup, and Flounders in the Middle Atlantic section; and with the great shrimp fishery in the South Atlantic area, conducted by the U. S. Bureau of Fisheries.

**An.** - Scientists Puzzling over Fate of Shrimp After First Birthday. - Fish & Oyster Rep., XV, 11, 10-11. Tampa, Fla. (1934). **b - 1503**

Summary of the report on investigation conducted by means of an extensive survey of the shrimp life in the waters of Louisiana, Texas and Georgia, concerned with the strange disappearance of the shrimp after his first birth-day, which is still a mystery. Various hypothesis elaborated as to the above problem.

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## *Expeditiones scientificae - Navigationes piscatoriae.*

**Beaugé L.** - La campagne de 1934 à la grande pêche. - Pêche Marit., Pêche Fluviale et Piscicult., XVII, 83-85. Paris (1934). **b - 1504**

**Raj B. Sundara** - Report on a Systematic Survey of Deep-Sea Fishing Grounds by S. T. « Lady Goshen », 1928-29. 2 charts, 1 table on pl., Madras Fish. Bull., XXIV, Rep. III, 199-232. Madras (1933). **b - 1505**

Areas explored. Fishing gear. Topography of the Banks. Hydrographical Work. Catches. Handicaps. App. I: Particulars of trawling cruises and hauls from the log book of S. T. « Lady Goshen ». App. II: Particulars of hauls with weights and kinds of fish caught by S. T. « Lady Goshen ». App. III: Statistical analysis of marine fauna other than edible fish trawled by S. T. « Lady Goshen ». App. IV: Table showing various salinities of water samples collected by S. T. « Lady Goshen ». Chart I (in two sections) showing position of hauls made by S. T. « Lady Goshen » and the nature of the bottom.

**An.** - Yamal Expedition to the Yamal Peninsula (In Russ. & Engl.). - Bull. Arctic Inst., 11, 350-351 & 389-390. Leningrad (1933). **b - 1506**

Short account of the expedition sent out in order to study the fishing possibilities in the Obj Bay along the Yamal coast and in the adjoining river and lake system of Yamal. Three different areas of the Bay with respect to fisheries. The several groups of fish which form the population of the Bay.

**An.** - Résumé of Operations of the R. S. « Africana ». (Titles in Engl. & Dutch.). Num. tabl., Fish. & Mar. Biol. Surv., Rep. Nº 11, Ann. A, 42-63. Pretoria, S. Africa (1934). **b - 1507**

Scientific nomenclature of the species recorded. I. Cape area survey (January-March, 1933). II. East coast survey (April-August, November-December, 1933).

**An.** - List of Stations of the R. S. « Africana ». 1 table, Fish. & Mar. Biol. Surv., Rep. Nº 11, Ann. B, 64-80. Pretoria, S. Africa (9134). **b - 1508**

Table containing data on the results of meteorological and hydrological observations carried on at the stations of the R. S. « Africana » in the Cape area, on the East coast, and in the Cape Agulhas-Cape Infanta section.

**An.** - Cruises of Steam Trawler « Cape Agulhas ». 1 table, Rep. Newfoundland Fish. Res. Comm., Ann. Rep., II, 2, App. A, 79-85. Plymouth (1934). **b - 1509**

Log of « Cape Agulhas » operations during its spring cruise (9/VI - 7/VII, 1933) and its fall cruise (23/VIII - 27/IX, 1933).

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## *Naviculae pro inquisitionibus scientificis.*

**Abbat P.** - Le navire de recherches océanographiques « Président-Théodore-Tissier ». - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 427-441. Paris (1933). **b - 1510**

**Blegvad H.** - S/S « Biologen ». - Rep. Danish Biol. Stat., XXXVIII, 3-8. Copenhagen (1933). **b - 1511**

**Courtin H.** - Le nouveau navire de recherches océanographiques de l'Office scientifique et technique des Pêches Maritimes. - Rev. Industr., LXIV, 2294, 28-31. (1934). **b - 1512**

Description de ce navire et son équipement pour des recherches océanographiques.

**Graham William** - Our Cod and Haddock Fishery Needs a Research Vessel. 4 ills., Fish. Gaz., LI, 4, 7-10. New York (1934). **b - 1513**

The author asks one research vessel for the cod and haddock fishery in American waters and outlines a research program, which would aid not only the fishermen, but important manufacturing industries as well.

**An.** - Plea For Research Vessel Wins Hearty Approval. - Fish Gaz., LI, 5, 15. New York (1934).

(—) S. also: John Graham: « Our Cod and Haddock Fishery Needs a Research Vessel », Fish. Gaz.. LI, 4, 1934. **b - 1514**

Introduction in Congress of a bill calling for an appropriation of 500,000 for the express purpose of building a research ship for fishery.

**An.** - Le « Misago-Maru », Navire de recherche. - Rev. Hydrogr., XI, 1, 17. Monaco (1934). **b - 1515**

Principales caractéristiques du navire de recherche de la Station d'Etude des Pêcheries du Gouvernement Général de la Corée-Fusan.

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## *Hydrographia piscatui applicata.*

**Buch Kurt** - Beobachtungen über chemische Faktoren in der Nordsee, zwischen Nordsee und Island sowie auf dem Schelfgebiete nördlich von Island. (Engl. Rés.). 2 Abb., 8 Tab., Rapp. Pr.-Verb. Cons. Expl. Mer, 3-ème partie, Appendices 1933-1934, LXXXIX, 13-31. Copenhague (1934). **b - 1516**

Diese während der Fischereisaison 1932 und 1933 ausgeführten Untersuchungen bilden die Unterlage eines eingehenden Studiums über die Kohlensäuregleichgewichtsverhältnisse im Meere sowie den $CO_2$ Austausch zwischen Meer und Atmosphäre. Die Fahrten. Methodik. Berechnete Grössen. Das Beobachtungs-und Analysenmaterial. Nordsee und Nordatlantischer Ozean. Das isländische Assimilationsgebiet.

**Eggvin Jens** - VIII. Biologiske og oceanografiske undersøkelser. De oceanografiske forhold i Vestfjorden og deres sammenheng med Lofotfisket 1933. 6 graph. figs., Årsber. v. Norg. Fisk. 1933. Lofotfisket 1933, 2, 94-102. Bergen (1934). **b - 1517**

The highest temperature ever measured prevailing in a depth of 100-150 m. during March 1933 ; causes of this anomaly ; its influence on the occurrence of spawning cod in the thin transition layers between the cold coast waters and the deep salt water.

**Eggvin Jens** - VIII. Biologiske og oceanografiske undersøkelser. Litt om de oceanografiske forhold under Lofotfisket 1934. 2 fig., Årsber. v. Norg. Fisk. 1934. Lofotfisket 1934, 2, 93-95. Bergen (1934). **b - 1518**

Observations on temperature and salt conditions made at Hola in March 1934. The transition layers between the cold coast waters and the deep salt water and its influence on the fishery.

**Fish Charles J.** - The Investigations of the International Passamaquoddy Fisheries Commission in 1931 and 1932. - Trans. Amer. Geoph. Union, 14th Ann. Meet., Apr. 27-29, 1933, Nat. Res. Counc., 225-226. Washington, D. C. (1933). **b - 1519**

An account of the work made for the last two years by the scientific staff of the International Passamaquoddy Fisheries Commission in order to determine as accurately as possible the effect of the proposed tidal-power dams on the fisheries of Passamaquoddy Bay and adjacent regions in the Bay of Fundy and Gulf of Maine.

**Le Danois Ed.** - Les transgressions océaniques. - Bull. Inst. Océanogr., 613, 1-16. Monaco (1933). **b - 1520**

Examen de la théorie des transgressions océaniques dans son principe et dans son mécanisme. Hypothèses expliquant ces transgressions. Influence de la transgression des eaux sur la pêche des principaux Poissons des eaux atlantiques et d'origine équatoriale. Les variations transgressives et les prédictions du rendement de la pêche. Mise au point de la question des variations de la pêche de la morue sur le banc de Terre-Neuve. Importance de la théorie des transgressions pour l'industrie de la pêche.

**McKay C.** - Water Temperatures for Cod Fishing. - Canad. Fisherm., XXI, 3, 11. Gardenvale, Que. (1934). **b - 1521**

Some results of various investigations concerned with the best temperature of water to fish for cod.

**McKenzie R. A.** - The Relation of the Cod to Water Temperatures. 3 figs., Canad. Fisherm., XXI, 7, 11-14. Gardenvale, Que. (1934). **b - 1522**

It is seen that the low temperature death point for the cod is approximately 30°-29° F. while its high temperature death point lies between 68° and 76° F. Between these limits there are records of fairly good cod fishing being obtained at various times, seasons, and places over the range 31°-60° F. While at present it is not possible fully to correlate these results with the fishery, they do explain the sudden cessation of fishing when the temperature rises rapidly.

**Musella F.** - Brevi cenni di idrografia (III Corso Magistrale marittimo peschereccio). 14 fig., 26 pp., Soc. Tip. A. Manuzio, Ist. Poligr. dello Stato - Libreria, Roma (1933). **b - 1523**

**Wilson A. M. & Thompson H.** - Notes on the Physical Conditions in 1933. 2 maps, 2 tabl., 1 pl., Rep. Newfoundland Fish. Res. Comm., Ann. Rep., II, 2, 40-47. Plymouth (1934). **b - 1524**

Account of the cruises undertaken in 1933 by the research trawler S. S. « Cape Agulhas ». Hydrographic data for both spring and fall seasons in 1932 and 1933 ; results of salinity and temperature observations. Drift bottles returns.

**G. A. S.** - Currents and Fisheries of the North Sea. - Nature, CXXXIV, 3388, 543-544. London (1934). **b - 1525**

Account of the session of the zoologic section of the British Association at Aberdeen on Sept. 11th devoted to a discussion on « The Currents of the Sea and their Biological Importance». The attention was drawn to the double effects of the currents forming a purely mechanical effect on the conveyance of the food and larvae as well as governing the physical and chemical conditions of any given region. Elucidation of the current conditions in the Dove Straits based on data obtained during the last three years from the Varne lightvessel and their application on forecasting of plaice, haddock and herring fisheries.

**An.** - Hydrographic Data. - Tabl., Rep. Newfoundland Fish. Res. Comm. Ann. Rep., II, 2, App. B, 86-99. Plymouth (1934). **b - 1526**

Data on temperatures and salinities at depth m (Metres) collected during two commercial and two research cruises of the steam trawler « Cape Agulhas » in the waters of Newfoundland in the year 1933.

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## *Aquarum pollutio et sanatio hydrica - Substantiae et organisma piscibus noxia.*

**Maldura M. Carlo** - Inquinamenti ed epurazione delle acque di rifiuto. 8 fig., Boll. Pesca. Piscicolt. e Idrobiol., IX, 5, 809-824. Roma (1933). **b - 1527**

Riassunti in generale tutti i danni arrecati alla pesca dall'immissione delle acque di rifiuto industriali nelle acque pubbliche, si accennano i principali metodi di epurazione. Non essendo possibile adottare un sistema universale per la loro epurazione, furono escogitati, in base alla loro natura, numerosi sistemi raggruppati in biologici, chimici e fisici.

**Meyer Paul-Friedrich** - Kormorane schädigen die Fischerei um Rügen. 10 Abb., Natur.

u. Volk, LXIV, 7, 256-263. Frankfurt a. M. (1934). **b - 1528**

Die Kormoranekolonie auf der Insel Pulitz im Kleinen Jasmunder-Bodden auf Rügen ist in verhältnismässig kurzer Zeit entstanden. Etwas über ihre Fortpflanzung. Schaden und Schutzmethoden.

**Munro J. A. & Clemens W. A.** - The Food of the American Merganser. - Ann. Rep. Biol. Board Canada, 1933, 92. Ottawa (1934). **b - 1529**

Some results of studies on the composition of food of the American merganser.

**Neubaur Rudolf** - Seegraskrankheit schädigt die Weide- und Fanggründe der Ostseefische. - Dtsch. Fischwirtsch., I, 11, 176-177. Berlin (1934). **b - 1530**

Starke Beeinträchtigung besonders der Aal- und Garneelenfischerei durch das Verschwinden des Seegrases im Grossen und Kleinen Belt und im Sund. Bedeutung von *Z. marina* L. im Stoffwechselkreislauf des Meeres; seine wirtschaftliche Bedeutung; Ergebnisse von verschiedenen Untersuchungen über den Rückgang der Seegrasbestände; Notwendigkeit die Erkrankung desselben eingehend zu studieren.

**Pohl Lucien** - Sur un nouveau moyen de destruction de micro-organismes marins nocifs. Bull. Soc. Océanogr. France, XIV, 79. Paris (1934). **b - 1531**

D'après ses expériences le Dr. Küchi Miyake a pu constater, en attachant un sac de sulphate de cuivre à la poupe d'un bateau et en promenant ce sac à la surface de la mer, la disparition instantanée des microorganismes constituant le « courant rouge », qui provoque au Japon la mort de *Meleagrina Martensi*, employée pour la culture des perles par la greffe épithéliale.

**An.** - Quallen als Fischfeinde. 3 Abb., Fischmarkt, II, 8, 215-217. Cuxhaven (1934). **b - 1532**

Zusammenfassende Darstellung über die bisher beobachteten Fälle, dass Quallen Jungfische fressen, an Hand von Untersuchungen von E. W. Gudger, M. Lebour, C. O. Bartels u. a.

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## *Expositiones et incrementa.*

**Bolt Adolf** - Wirksame Propaganda zur Steigerung des Fischkonsums. - Dtsch. Fischwirtsch., I, 22, 249-250. Berlin (1934). **b - 1533**

Einige Ausführungen, welche sich mit der Organisation einer wirksamen Propaganda zur Vermehrung des Fischkonsums beschäftigen.

**Finzel** - Aufklärung und Werbung für die Versorgung des deutschen Volkes mit Seefischen aus deutschen Fängen. - Dtsch. Fischwirtsch., I, 35, 605-606. Berlin (1934). **b - 1534**

Stellungsnahme des Schöpfers der zahlreichen erfolgreichen Propagandamassnahmen des Reichsseefischausschusses zur Förderung der Befriedigung des Bedürfnisses des deutschen Volkes in Seefischen aus deutschen Fängen.

**Groening Albert M.** - Fischwirtschaftliche Werbung im Ausstellungswesen. - Dtsch. Fischwirtsch., I, 9, 141-142. Berlin (1934). **b - 1535**

Einige Betrachtungen über die Teilnahme der deutschen Fischerei an der « Grünen Woche » und an verschiedenen anderen Ausstellungen, und im allgemeinen in der Werbe- und Aufklärungsarbeit der deutschen Volkswirtschaft.

**Guenther R.** - Fischpropaganda und Spezialisierung des Handels mit Fischwaren. - Dtsch. Fischwirtsch., I, 34, 553-554. Berlin (1934). **b - 1536**

Wichtigkeit der Fischpropaganda für die Entwicklung der Fischindustrie. Drei Misstände, die dem vermehrten Seefischgenuss im Wege stehen: Qualitätsmangel, zu hohe Preise und Notlage des Fischhandels.

**Hilker Chr.** - Zum Kapitel « Seefischpropaganda ». - Dtsch. Fischwirtsch., I, 34, 551-552. Berlin (1934). **b - 1537**

Notwendigkeiten für die Fischindustrie. Der Einzatz der Werbung für die Gestaltung der Absatzregelung.

**Lenglaub Konrad** - Gemeinschaftswerbung im Fischhandel. - Dtsch. Fischwirtsch., I, 15, 239-240. Berlin (1934). **b - 1538**

Einige Betrachtungen über die Organisation der Schulung, Werbung und Finanzierung des Fischhandels.

**Roehler** - Absatzwerbung im Schaufenster. - Dtsch. Fischwirtsch., I, 34, 554-555. Berlin (1934). **b - 1539**

Einige Betrachtungen, aus welchen es hervorkommt, dass der frische und lebende Fisch der beste Blickfang ist.

**Wildenheim Bernhard** - Fisch-Propaganda auf neuen Wegen. - Dtsch. Fischwirtsch., I, 6, 96. Berlin (1934). **b - 1540**

Ein Versuch auf die folgenden Fragen eine Antwort zu geben: « Wie haben sich die Propaganda-Massnahmen ausgewirkt in Bezug auf die deutsche Wirtschaft » und « Welche Erfolge kann man verzeichnen ? ».

**An.** - Stralsund. Zum 1. Deutschen Reichs-Fischwirtschaftstag. 4 Abb., Fischmarkt, II, 10, 265-269. Cuxhaven (1934). **b - 1541**

Geschichtliche Uebersicht; Beziehung Stralsunds zur Fischerei.

**An.** - National Advertising Campaign Planned by Oyster Industry. - Fish. Gaz., LI, 10, 13-15. New York (1934). **b - 1542**

Information on the vote made by the oyster convention held in Baltimore, Md., on August 6, 7, and 8, to raise 100,000 for a national advertising campaign to win back its lost market and to press with the aim of doubling the per capita consumption.

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## *Congressus - Conventus - Conferentiae.*

**Bigelow Henry B.** - Report on Oceanography. - Ann. Rep. Mus. Comp. Zool. Harvard College 1933-34, 15-17. Cambridge, U. S. A. (1934). **b - 1543**

Participation in the annual meeting of the North American Council for Fisheries. Assistants and Students' works. Courses accomplished and reports in preparation by Mr Bigelow.

**Jackson Ch. E.** - National Congress Proposed by Bureau of Fisheries. 1 photo, Fish. Gaz., LI, 13, 5-6. New York (1934). **b - 1544**

Some explanation of the idea given by the U. S. Bureau of Fisheries to hold in Washington, D. C. in the beginning of the year 1935 a National Fish Congress, whose main purpose should be to impress upon the nation the importance of the fishing industry and, at the same time, take the opportunity to acquaint Congress with fishery problems.

**Lawson Frank W.** - Every Oysterman Invited to Baltimore Meeting. - Fish. Gaz., LI, 8, 7. New York (1934). **b - 1545**

The main topics, the members, the technical papers and the advertizing campaign to be displayed at the convention of the oyster industry to be held in Baltimore on August 6th to 9th 1934.

**Maurice Henry G.** - Introductory Note. - Rapp. Pr.-Verb. Cons. Expl. Mer, XC, v-vi. Copenhague (1934). **b - 1546**

Introduction to the Reports of the Proceeding of the Special Biological Meeting of the International Council for the

Exploration of the Sea, convoked in order to determine the size-limits for fish and to elaborate regulations of the meshes of fishing nets. The meeting was held on June 4th and 8th 1934, at Copenhagen.

**Paulhus J. Arthur** - Distribution Main Problem of Industry. 1 photo, Canad. Fisherm., XXI, 10, 9-10. Gardenvale, Que. (1934). **b - 1547**
Report of the President of the Canadian Fisheries Association on the 19th Annual Meeting, Montreal, September 17th, 1934, emphasizing the importance of the problem of distribution for the development of the fishing industry.

**Peace H. L.** - Many Problems of Fish Industry Discussed at Annual Meeting of Southern Fisheries Association. - Fish & Oyster Rep., XV, 13/14, 4 & 12-13. Tampa, Fla. (1934). **b - 1548**
Brief account of the meeting which has taken place on July 30, 1934 in the Mayflower Hotel, Jacksonville.

**Sund O.** - Det Internasjonale Havforskningsråd - Årsber. v. Norg. Fisk., 1932, 99-100. Bergen (1934). **b - 1549**
Rapport de la réunion annuelle tenue à Copenhague le 20-26 juin 1932. Délégués norvégiens. Propositions faites par la Norvège. Discussions. Election du Président et des vice-Présidents.

**Congrès** (1.er) **Social Maritime Breton** - La Bretagne maritime. Sa structure économique. Sa détresse. Comment la sauver. xxvii + 236 pp., Soc. Edit. Géogr. Paris (1933). **b - 1550**
Congrès tenu à Quimper en Sept. 1933. Documents importants sur l'armement, les conditions de pêche, la concurrence étrangère. Situation de la grande pêche Terreneuvienne et Islandaise (Beaugé) ; rapport sur le goémon, etc.

**Conseil Permanent International pour l' Exploration de la Mer** - Proceedings at the Special Biological Meeting. - Rapp. Pr.-Verb. Cons. Expl. Mer, XC, vii - xv. Copenhague (1934). **b - 1551**
Proceedings of the Special Biological Meeting, held on June 4th and 8th, 1934, at Copenhagen : 1st Sitting. 2nd Sitting. Conclusions (English, French, and German version). The Meeting has been devoted to discussion of the principles of mesh regulation and protection of fish through size limits.

**An.** - XXIIe Assemblée Générale du Syndicat Général de l'Ostréiculture, des Cultures marines et de leur Commerce en France. - Ostréicult., Cult. Mar., septembre. (?) (1933). **b - 1552**

**An.** - Official Program Joint Convention National Shellfisheries Association and the Oyster Growers and Dealers Association of North America, Inc. - Fish. Gaz., LI, 9, 17-28. New York (1934). **b - 1553**
Official program of the convention, which has taken place at Baltimore, Maryland, on August 6, 7 and 8, 1934.

**An.** - Nova Scotia Commission Hears Fish Trade Problems. - Canad. Fisherm., XXI, 9, 17 & 22. Gardenvale, Que. (1934). **b - 1554**
Account of the debates of the Macdonald Ministry's Economic Commission at its Halifax sitting on August 21st, 1934, dealing with tariff and transportation questions for the products of the fish industry, the international situation of this industry and some pecualiar features of the Canadian fisheries.

**An.** - Canadian Fisheries Association Urges Government Advertizing Campaign. - Canad. Fisherm., XXI, 10, 7-8. Gardenvale, Que. (1934). **b - 1555**
Proceedings of 19th annual meeting of the Association held in Montreal on September 17th, 1934. Summary of the discussions. Conclusions concerned with factors developing the business.

**An.** - Investigating Atlantic Fish Industry. - Canad. Fisherm., XXI, 11, 7-8. Gardenvale, Que. (1934). **b - 1556**
Summary of the more important suggestions made by fishermen appeared before Price Spreads Commission in Ottawa in October 30, 1934 and following days.

**An.** - Der Reichsbauernführer begrüsste den Reichs-Fischwirtschaftstag. - Dtsch. Fischwirtsch., I, 26, 445-446. Berlin (1934). **b - 1557**
Reden der Vertreter des Staates, der Partei und des Reichsnährstandes über die Fischwirtschaft.

**An.** - Eindrücke vom Ersten Deutschen Reichs-Fischwirtschaftstag. - Dtsch. Fischwirtsch., I, 26, 446-447. Berlin (1934). **b - 1558**

**An.** - Der erste Deutsche Reichs-Fischwirtschaftstag. - Fischmarkt, II, 11, 284-289. Cuxhaven (1934). **b - 1559**
Bericht über die von 13. bis 15. Oktober 1934 in Stralsund stattgefundene Tagung für die gesamte Fischwirtschaft des Reiches. Zusammenfassende Wiedergabe des Inhaltes von den wichtigsten Referaten.

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## *Doctrina technica et commercialis - Rationes studiorum.*

**Biegler Peter & Fabian Franz** - Handbuch für den Handel mit Fischen und Fischwaren (Seefische, Süsswasserfische, Fischkonserven, Marinaden, Räucherwaren, Salzheringe u. s. w.). - Verl. Dr. Serger & Hempel. Braunschweig (1932). **b - 1560**

**Cowie J. J.** - Contrôle alimentaire et sanitaire du poisson et enseignement professionnel et technique. - 3-ème Rapp. Ann. Minist. Pêch. Canada, 1932-33, App. 5, 171-177. Ottawa (1934). **b - 1561**
Compte rendu sur l'exécution et les modalités de l'inspection du poisson saumuré et salé et des barils ou colis destinés à contenir ce poisson, du contrôle des conditions sanitaires des établissements pour la fabrication des conserves de poisson. Cours professionnels au bénéfice des pêcheurs. Cours d'enseignement technique au bénéfice des surveillants de pêche.

**Trockels** - Die Berliner Fisch-Engrosmarkt-Reform im Urteil der Verwaltung. - Dtsch. Fischwirtsch., I, 31, 537-538. Berlin (1934). **b - 1562**
Stellungsnahme des Direktors der Städtischen Markthallen in Berlin zur Reform, die vom Reichsnährstand auf dem Berliner Fisch-Engrosmarkte durchgeführt worden ist.

**Reichert-Facilides** - Noch grössere Leistungsfähigkeit durch Fischhändler-Lehrgänge. - Dtsch. Fischwirtsch., I, 22, 351. Berlin (1934). **b - 1563**
Bericht über die Wesermünder Fischhändlerlehrgänge.

**An.** - More Study Courses Offered Fishermen. - Canad. Fisherm., XXI, 8, 22-23. Gardenvale, Que. (1934). **b - 1564**
Information on extending by the Dominion Fisheries Department of the instructional work in interests of men of fishing industry.

## Portus ad piscaturam idonei - Navicularum quaestio de constructione et instrumentis - Classis piscatoria motoribus instruenda.

### *Portus ad piscaturam idonei eorumque munera.*

**Dexbach K.** - Un port de pêche à Mourmansk (En russe). - Za Rybn. Ind. Severa, 9, 7-9. Leningrad (1933). **b - 1565**

**Torp Alf** - Moderne fiskehavner Grimsby-Lorient. Anlegg av centrale ferskfiskhavner i Norge. 15 fig., Årsber. v. Norg. Fisk. 1933, 4, 1-27. Bergen (1934). **b - 1566**

Description des ports de Lorient et de Grimsby et leur importance. Comparaison avec les conditions de pêche en Norvège. Nouveaux projets de construction de ports spécialement aptes pour la Norvège.

**An.** - Wilson's Beach - Centre of Valuable Fishing Industry. - Canad. Fisherm., XXI, 6, 13-14. Gardenvale, Que. (1934). **b - 1567**

Development of the smart fishing port of Wilson's Beach, N. B.; picturesqueness of the village itself; its fishing fleet; its fish trade; the principal fishing industries of the town.

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### *Naviculae et classiculae ad piscaturam idoneae earumque instrumenta.*

**Averintzev S.** - Sur la question du type de bateau pour la pêche au chalut de la morue (En russe). - Za Rybn. Ind. Severa, 9, 16-17. Leningrad (1933). **b - 1568**

**Badeau E. C.** - Modernization under the Stern. 1 ill., Fish. Gaz., LI, 1, 16. New York (1934). **b - 1569**

The author emphasizes the usefulness of the Monel Metal for both wheels and shafts of fishing boats. This metal is an alloy composed of approximately two-thirds nickel and one-third copper.

**Bagshave G. W.** - The Wooden Ships of Whitby. ills., 94 pp., Horne & Sons. Whitby (1933). **b - 1570**

Account of the fishermen and fishing craft, as well as the traffic, past and present, of the North Sea.

**Bedford R. H.** - Disinfection of Boats. - Fish. Gaz., LI, 5, 17. New York (1934). **b - 1571**

The author proves value of vessel desinfection by showing better prices realized by fish from such boats.

**Boyle V. C.** - The Sharp Sterns of the West Cornish Luggers. - Mar. Mirr., XX, 2, 231-232. London (1934). **b - 1572**

Short information on these types of boats purposely built with all planks brought into the sternpost in order to withstand the heavy groundswells in the harbours of West Cornwall.

**Dade Ernest** - The Cobles. 4 pl., 4 figs., Mar. Mirr., XX, 2, 199-207. London (1934). **b - 1573**

The A. tells us of different types of these ancient boats which he has observed beginning with the quotation of a letter written in the reign of Queen Elizabeth.

**Deed W. J.** - Reducing Corrosion on Fishing Vessels. 1 ill., Fish. Gaz., LI, 1, 6 & 10. New York (1934). **b - 1574**

After some examples of corrosion on board of fishing vessels due to an electric current passing through the hull, the author describes electrolysis eliminators which allow to eliminate the electrolysis and to increase the efficiency of the engine.

**Fox A.** - Un type avantageux de chalutier (En russe). - Za Rybn. Ind. Severa, 1, 23-36. Leningrad (1933). **b - 1575**

**Idelson M.** - Utilisons l'expérience des chalutiers étrangers (En russe). - Za Rybn. Ind. Severa, 5, 29-32. Leningrad (1933). **b - 1576**

**Johns W.** - Kohlenverbrauch des Fischdampfers. Tab., Fischmarkt, II, 3, 77-79. Cuxhaven (1934). **b - 1577**

Einige Beispiele, in denen gezeigt wird, dass zur Nachprüfung des spezifischen Kohlenverbrauches einer Dampfermaschinenanlage mehr Angaben nötig sind, als im Fischdampferjournal aufgezeichnet werden, und dass der Verbrauch in der Wirklichkeit höher liegt, als der vom Konstrukteur gewollte und auf dem Prüfstand und Probefahrten ermittelte.

**Laurens-Castelet** - Renouvellement de la flotte de pêche. - Bull. Soc. Océanogr. France, XIII, 74, 1304-1307. Paris (1933). **b - 1578**

Examen rapide des mesures prises par les différents pays dans le but d'améliorer la situation actuelle de l'industrie de la pêche. Données statistiques dont résulte l'âge élevé des chalutiers de pêche française. Nécessité de démolir les vieux chalutiers et de construire des bateaux de pêche nouveaux. Constitution dans ce but d'une Caisse de Crédit Maritime. Fonctionnement et avantages assurés par la Caisse. Résultats que l'on pourrait obtenir en ce qui concerne le renouvellement de la flotte de pêche française.

**Mann C. F. A.** - Northwest Seas Revival of Fish Boat Construction. 6 ills., Fish. Gaz., LI, 6, 14-16. New York (1934). **b - 1579**

Upturn in fishing industry on Pacific Coast spurs building of new vessels and modernization activities in older boats.

**Mikhailov St.** - Sur la question du type de chalutier industriel (En russe). - 2 diagr., 2 photo, Karelo-Murm., Kraj, 9/10, 53-58. Leningrad (1933). **b - 1580**

**Peace H. L.** - 45-Ft. Shrimp Trawler Now Queen of Florida's Fleet. 1 fig., Fish. Gaz., LI, 10, 10. New York (1934). **b - 1581**

Description of the construction and power equipment of the « Queen of Fernandina », which is a step forward in modernization and improvement of the shrimp fishing industry.

**Peace H. L.** - News of the Florida Fishing Fleet. - Fish & Oyster Rep., XVI, 2, 6. Tampa, Fla. (1934). **b - 1582**

Some information on the catch and the launching of several new fishing vessels.

**Ryan Michael A.** - Lunenburg Leads Recovery with Crack Fishing Schooner. 1 fig., Canad. Fisherm., XXI, 12, 10-11. Gardenvale, Que. (1934). **b - 1583**

Description of an up-to-date fishing schooner « Majorie and Dorothy » built by the same builders of the famous « Bluenose » at Lunenburg. Carrier and success of his owner.

**Smirnov K.** - Chauffage avec la poussière de charbon à bord des chalutiers (En russe). - Za Rybn. Ind. Severa, 1, 62-63. Leningrad (1933). **b - 1584**

**Voronov K.** - Une base auxiliaire pour chalutiers dans la Mer de Barents (En russe). - Za Rybn. Ind. Severa, 4, 26-28. Leningrad (1933). **b - 1585**

**An.** - Paint- the Fisherman's Helper. - Canad. Fisherm., XXI, 3, 16-17. Gardenvale, Que. (1934). **b - 1586**
Importance of the paint for the preservations of boats; the three major divisions in boat painting; plant painting.

**An.** - Wheel-Barrow Skiffs Used by Maine Lobstermen. 1 fig., Canad. Fisherm., XXI, 6, 14. Gardenvale, Que. (1934). **b - 1587**
A hint that may possible offer a solution to a problem, i. e. to build a skiff converted so to say into a sea-going wheelbarrow. At Crescent Beach which is quite flat instead of shelving quickly into deep water all the lobstermen adopted this type of fishing craft.

**An.** - The « Benito Mussolini ». 1 fig., Fish. Gaz., LI, 3, 13. New York (1934). **b - 1588**
Description of the recently launched shrimp trawler « Benito Mussolini », which represents a distinct advance in boat building along the Florida coast.

**An.** - Modernization Continues in All Sections of Country. 3 figs., Fish. Gaz., LI, 5, 11-12 & 14. New York (1934). **b - 1589**
Examples of boat modernization in the U. S. A.

**An.** - Three New Trawlers for R. O' Brien & Co. 1 ill., Fish. Gaz., LI, 10, 9. New York (1934). **b - 1590**
Description of the design and equipment of three new steel trawlers built for a well known Boston fish producer.

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## *Quaestio de naviculis piscatoriis motoribus praeditis.*

**Deed W. J.** - Achieving Greater Economy and Efficiency. 3 ills., Fish. Gaz., LI, 1, 14 & 18. New York (1934). **b - 1591**
The author refers to two instances of vessels, whose fuel coasts have decreased, and speed increased, due to the replacement of old engine with new one.

**Deed W. J.** - Marine Equipment for Modernization Needs Displayed at the Motor Boat Show. 12 figs., Fish. Gaz., LI, 2, 12-17 & 20. New York (1934). **b - 1592**
Account of the exhibition of boats, engines, and equipment, almost all of them of interest to any boat owner intending to modernize his craft, from a new motor to a coat of paint.

**Fick H.** - Probefahrt des Finkenwärder Hochsee-Motorkutters « Goden Wind ». 1 Fig., Fischmarkt, II, 8, 207-208. Cuxhaven (1934). **b - 1593**
Beschreibung des Baues, der Antreibsmaschine des für den Fischfang umgebauten Lotsenschoners « Goden Wind ».

**Fick H.** - Der Heringsfang mit dem Motorkutter « Goden Wind ». - Fischmarkt, II, 9, 232-233. Cuxhaven (1934). **b - 1594**
Ergebnisse von zwei mit dem Motorkutter « Goden Wind » nach der südlichen Nordsee unternommenen Fangreisen über dessen Probefahrt in dem H. 8, 1934 von « Fischmarkt » mitgeteilt worden ist.

**Fromm H. E.** - The Reduction Gear Engine and Its Practical Advantages. 8 figs., Fish. Gaz., LI, 8, 14-16. New York (1934). **b - 1595**
Easily-understood analysis of the light-weight, fairly high-speed motor.

**Technical Editor** - Engine Digest. 1 table, Fish. Gaz., LI, 7, 21-31. New York (1934). **b - 1596**
Digest of the principal specifications of gasoline, oil and Diesel engines suitable for commercial fishing craft.

**An.** - Many Engines Installations in B. C. Fishing Craft. - Canad. Fisherm., XXI, 4, 21. Gardenvale, Que. (1934). **b - 1597**
Account of engine installations in old and new boats.

**An.** - Performance of New Diesel Checked on Trial Trip. 1 fig., Fish. Gaz., LI, 3, 16. New York (1934). **b - 1598**
Account of the performance of a high speed Buda Diesel engine during a trial run of a 40 ft. by 12 ft. boat. Engine performance, fuel and lubricating oil consumption, starting, idling etc.

**An.** - Fairbanks-Morse Brings out its First 4-Cycle Engine. 1 fig., Fish. Gaz., LI, 4, 14 & 16. New York (1934). **b - 1599**
Description of the new F-M 4-cycle, 6-cylinder marine Diesel presented at the Motor Boat Show, which opens new opportunities in the field of fishing craft.

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## *Problemata de armamentis et instrumentis - Statistica de instruenda piscatione.*

**Gaedechens Ehrich** - Photographie an Bord. 2 Abb., Fischmarkt, II, 12, 325-328. Cuxhaven (1934). **b - 1600**
Einige Betrachtungen über Ausführung von Photographien an Bord von Fischdampfern.

**Steinert Hermann** - Die deutschen Fischdampferreedereien. 1 Tab., Fischmarkt, II, 2, 37-39. Cuxhaven (1934). **b - 1601**
Entwicklung der deutschen Fischdampferflotte seit 1931. Die gute Erhaltung des Fischdampferbestandes. Sein Zuwachs im Laufe der letzten Jahre.

**An.** - New Radio Compass Developed For Use on Fishing Vessels. 2 figs., Fish. Gaz., LI, 9, 13 & 29. New York (1934). **b - 1602**
Account of a trial made on board of the fishing trawler « Flow » which shows that the radio compass developed by the New England Telephone and Telegraph Company is a highly sensitive, simple and reliable apparatus, and that telephone communication between the trawlers and the home office is exceedingly useful.

**An.** - Improvements Made in Radio Telephones. 2 figs., Fish. Gaz., LI, 13, 7-8. New York (1934). **b - 1603**
Description of the new improved type of marine radio telephone equipment designed for the use of fishing trawlers, harbor craft, pilot boats and yacht displayed by the Western Electric Company at the Marine Exhibit in New York.

**An.** - Fog Peril to Fishermen Lessened. - Nature, CXXXIV, 3390, 623. London (1934). **b - 1604**
Short note on the use of small radio transmitting sets weighing 20 lb. on small fisherboats to signal their position in the fog. Further particulars are given in « Electronics » of August,

## Methodus et Instrumenta - Retia.

### *Piscaturae Methodus.*

**Bini Giorgio** - La pesca delle Spugne. 12 fig., 17 pp., III Corso Magist. Maritt. Pescher. Roma (1933). **b - 1605**

Generalità sulle Spugne. Sistemi di pesca in uso nel Mediterraneo. Pesca con lo scafandro. Pesca con il Fernez. Pesca col sommozzatore. Pesca con la fiocina. Pesca con la gangava. Lavorazione delle spugne.

**Bini Giorgio** - La pesca del Tonno con l'amo. 13 fig., 14 pp., III Corso Magist. Maritt. Pescher. Roma (1933). **b - 1606**

Sistemi industriali per la pesca del tonno, basati sull'impiego delle lenze. Descrizione dei due metodi di pesca oggi usati: lo spagnolo e il giapponese o americano.

**Bjerkan Paul** - Undersøkelser angående fisket med åletrål 1932. - Årsber. v. Norg. Fisk. 1932. 1, 78-95. Bergen (1934). **b - 1607**

Account of researches undertaken on the coast of the Skagerak and the Westland with a view to examine whether the use of the so-called « åletrål » implies a danger for the fry and possibility of collision between the different engins. Lists of localities examined and species captured.

**Bronkhorst L.** - L'exercice des arts traînants dans l'Atlantique. - Bull. Trimestr. Enseign. Profess. et Techn. Pêches. Marit., XXXVII, 4. (?) (1932). **b - 1608**

**Cannaviello E. F.** - Metodi ed attrezzi per la pesca di mare. - Boll. di Pesca, Piscicolt. e Idrobiol., 4, 629-668. Roma (1933). **b - 1609**

Sproporzione tra l'attività peschereccia spiegata e il profitto ricavato, in diretta dipendenza della scarsezza di organizzazione produttiva e della deficienza di attrezzi di pesca, idonei ad una più efficace attività predatoria. Poca evoluzione dell'arte della pesca attraverso i tempi. Rassegna degli attrezzi e dei metodi per la pesca di mare usati in Italia. Cenni sulla loro efficacia predatoria per dare una visione delle forme in cui si esplica l'attività dei nostri pescatori, e per indicare quali fra questi sono più adeguate alle condizioni ittiche delle nostre acque.

**Franchini Antonio** - Sulla conservabilità del pesce azzurro pescato con le sorgenti luminose (R. Istituto Superiore di Scienze Econ. e Comm. Catania - Istituto di Merceologia). Ann. Merceol. Sicil., I, 277-281. Acireale (1934). **b - 1610**

Maggiore o minore conservabilità del pesce azzurro catturato con le sorgenti luminose. Principio fondamentale su cui si basa la pesca con le sorgenti luminose. I pesci maggiormente catturati con tale sistema di pesca sono i « Clupeidi », di piccola taglia (Sardine, Acciughe, Sgombri, Sauri, ecc.) chiamati Pesci azzurri.

**Fusco Nicola** - I mestieri ed i sistemi per la pesca a strascico oceanica. 7 fig., Boll. di Pesca, Piscicolt. e Idrobiol., IX, 4, 669-691. Roma (1933). **b - 1611**

La pesca a strascico con divergenti. Pesca a strascico costiera e pesca a strascico alturiera. La pesca lungo la costa della Mauritania. Navi ed attrezzi impiegati per la pesca a strascico oceanica. Reti impiegate nella pesca a strascico atlantica. Modo di calare, strascinare e salpare una rete. Avvenire della pesca a strascico oceanica.

**Grey of Fallodon** - Fly Fishing. xiv + 240 pp., (The Open Air Library), Dent & Sons. Ltd. London & Toronto (1934). **b - 1612**

**Piquois M.** - La pêche aux arts traînants sur les côtes françaises de la Méditerranée. - Bull. Trimestr. Enseign. Profess. et Techn. Pêches Marit., XXXVII, 3. (?) (1932). **b - 1613**

**« g. g. »** - Pesca all'acrobata del mare. 4 fig., Natura, 9, 66-68. Milano (1933). **b - 1614**

La pesca al tarpon dell'Atlantico è diffusissima e richiede perfezione di tecnica, avvedutezza, rapidità di decisione da parte del pescatore che manovra la canna. Questa dovrà essere robustissima ed avere una cima assai flessibile e resistente; la lenza deve essere ben salda e tenace, l'amo tagliente e bene azzeccato, e l'esca costituita da pesce vivo o artificiale. Metodi di pesca nel Messico e nella Florida.

**An.** - Lights as Lure for Fish. - Canad. Fisherm., XXI, 9, 25. Gardenvale, Que. (1934). **b - 1615**

Description of a renewed application of an old idea to fishing methods which has been tried out in the Moray Firth, i. e. of an extremely powerful light enclosed in floating buoy so as to be directed on a wide area of the sea-bottom. Catching experiments with the new method on board the motor-boat « Argosy » with a seine-net.

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### *Retia et Instrumenta.*

**Altnoeder K.** - Die Sprottzeesenfischerei bei Sassnitz. Tab., Dtsch. Fischwirtsch., I, 29, 499-500. Berlin (1934). **b - 1616**

Einfluss der Einführung der Sprottzeesenfischerei auf die Sprottfischerei; Emporschnellen der Anlandemengen; Verlagerung des Schwerpunktes der Sprottfischerei nach Osten; Beschreibung des Sprottenfanges mit der Zeese; Zusammensetzung der Fänge.

**Andersson K. A.** - Experiments with Trawls Having Different Meshes in the Cod-End. 1 fig., Rapp. Pr.-Verb. Cons. Expl. Mer, XC, 61. Copenhague (1934). **b - 1617**

Results of experiments carried out by the Swedish Hydrographic Commission with herring-trawl and ordinary trawl in the Skagerak and Kattegat, in order to find possible means for saving unmarketable small fish.

**Barrillon** - Rapprochement entre les essais de résistance de fils et les essais de résistance de filets. Deuxième note sur les fils et filets. 8 fig., 5 tabl., Rev. Trav. Off. Pêches marit., VII, 1, 87-98. Paris (1934). **b - 1618**

Fils avec nœuds. Filets avec fonds et sans fonds. Rapprochement entre les essais de résistance de fils et les essais de résistance des filets. Filets doubles. Essais dynamo-métriques.

**Borisov T. M.** - The Technics of Fish Catch. Book I. Net Materials. (In Russ., Engl. rés.). - Stationary Fish. Gear. Moscow (1932-33). **b - 1619**

**Buchanan-Wollaston H. J.** - A Criticism of a Frequently Used Fallacious Method of Estimating the Selective Action of a Trawl Net. 1 fig., Minist. Agricult. & Fish., Fish. Invest., Ser. II, XIV, 1, App. A, 37. London (1934). **b - 1620**

Criticism of a method of estimating the selective action of a trawl net, based upon the elaboration of a curve showing the percentage of fish in each centimeter group captured by a particular net.

**Bueckmann A.** - Ueber ein Mindestmass für die Seezunge der Nordsee. 6 Tab., Rapp. Pr.-Verb. Cons. Expl. Mer, XC, 35-37. Copenhague (1934). **b - 1621**

Einige Betrachtungen über den für die Seezunge empfohlenen Mindestmass von wenigstens 23 cm. an Hand von Beobachtungen über Biologie und Bestand der Seezunge in der südlichen Nordsee, die im Laufe des letzten Jahrzehnts von der Biologischen Anstalt auf Helgoland bei Gelegenheit der Schollenuntersuchungen gesammelt worden sind.

**Clark Robert S.** - Scottish Seine Net Investigations. 5 figs., 5 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, XC, 51-57. Copenhague (1934). **b - 1622**

The present communication is concerned with experimental tests carried out with the « Snurrevaad » or Danish Seine, or rather the Whitefish Seine (a modified Snurrevaad used by Scottish inshore fishermen), compared with the Otter Trawl, in order to define the method of fishing within Scottish territorial waters so that the minimum number of undersized fish will be caught by the net.

**Conn W. T.** - Getting the most out of your Nets. - Fish. Magaz., March. New York (1934). **b - 1623**

**Conn W. T.** - More Life from the Nets. - Fish & Oyster Rep., XV, 8, 6-7. Tampa, Fla. (1934). **b - 1624**

The purpose of this paper is to assist many fishermen to reduce the cost of fishing by increasing the service life of nets. It contains some information as to the preserving of « heavy nets » and of good tarring of them.

**Conn W. T.** - Net Preservatives Research, 1933. With Recommendations. - Fish & Oyster Rep., XV, 9, 5/9, 12-13 & 16. Tampa, Fla. (1934). **b - 1625**

Account of a research conducted for several years with the object of producing information that would serve in reducing depreciation in fish nets and ultimately lowering the retail cost of fish by eliminating needless waste. Experimental material has been distributed over a wide range of typical waters and considerable personal contact has been made with conditions that surround net operation.

**Davis B. A.** - Mesh Experiments With Trawls 1928-1933. 12 figs., 16 tabl., Minist. Agricult. & Fish., Fish. Invest., Ser. II, XIV, 1, 3-36 & 39-58. London (1934). **b - 1626**

This report deals with the Ministry's researches on the effect of varying the size of the cod-end meshes of trawls on the size of the fish caught. The work described is of two types. There are the preliminary and control experiments designed to test the adequacy of the various methods of research, and secondly, the experiments carried out from commercial vessels under commercial conditions.

**Davis F. M.** - Report on the Results of Experiments with Saving Gears. 3 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, XC, 14-21. Copenhague (1934). **b - 1627**

Appendix B. to the Report by E. S. Russell on « Size Limits and Mesh Regulations for Sea Fish ».

In this paper the A. describes the methods employed and the results obtained in his investigations on the releasing power of meshes of different types of net. In his conclusions he claims that the size of fish retained and released is a function of the size of the mesh, but that other factors, such as speed of towing and quantity of fish on the ground may also affect the question.

**Davis F. M.** - A Mesh Experiment Indicating that Small Fish Escape while the Trawl is Being Towed. 2 figs., 1 table, Rapp. Pr.-Verb. Cons. Expl. Mer, XC, 22-26. Copenhague (1934). **b - 1628**

Appendix C. to the Report by E. S. Russell on « Size Limits and Mesh Regulations for Sea Fish ». Account of an experiment carried out in order to solve the problem as to whether fish did or did not escape through the codend meshes when the net is towed. General principle of the experiment. Its results, which show that the greater part of fish escape through the meshes of the codend when the net is being towed, and before it is hauled. Note on the construction of the retainer.

**Davis F. M.** - Preliminary Note on a Commercial Mesh Experiment. 2 figs., 2 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, XC, 27-31. Copenhague (1934). **b - 1629**

This preliminary note describes, in the broadest manner only, the methods used and the results obtained in a mesh experiment under commercial conditions carried out in accordance with Recommendation 2 of the Combined North and Eastern Channel Committee (June 23rd, 1932) by the Ministry of Agriculture and Fisheries in England (Lowestoft). The experiments indicate that the use of a codend of larger mesh allows considerably greater number of the smaller fish to escape.

**Elden Alfred** - Novel Devices for Catching Fish. 2 figs., Canad. Fisherm., XXI, 11, 12-13. Gardenvale, Que. (1934). **b - 1630**

An account of the results of a study carried on by Herbert W. Spear of the devices used in salt water commercial fishing with a view of bettering them, and with especial reference to the employing of colored lights, artificial baits and traps.

**Fraser-Brunner A.** - An Arrangement of Nets for Capturing Small Oceanic Fishes. 1 fig., Journ. Cons. Expl. Mer, IX, 46-48. Copenhague (1934). **b - 1631**

The bearing principle in the arrangement described here is the ever growing velocity with which the water displaced from the first net is driven into the second, and from this into the third original net thus collecting a quantity of fish much larger than that of an ordinary single net. A corrected list of the oceanic species obtained is given.

**Iversen Thor** - Some Remarks on Mesh Width and Its Influence on Young Fish. With addendum. 2 figs., Rapp. Pr.-Verb. Cons. Expl. Mer, XC, 40-44. Copenhague (1934). **b - 1632**

Criticism of the statement of Commandant Beaugé (See : « Report of Cod Expert Meeting », Note. Rapp. Pr.-Verb., LXXXIX, part II, p. 14), who does not believe in the utility of fixing a definite size of mesh for trawls in order to limit the number of young fish in catches, on hand of the experiments carried out by F. M. Davis (See : Rapp. & Pr.-V. Réun., XC, pp. 14-29). In the addendum the author expresses the opinion that it would be possible to introduce in a practical way a separate mesh regulation for the North Sea and similar waters and another regulation for more far-off waters, including the Barents Sea.

**Jackson V. W.** - Fish Nets... Made of Whalebone. 1 fig., Fish. Gaz., LI, 3, 6. New York (1934). **b - 1633**

Description of a baleen fish net, belonging to the University of Manitoba Museum, 30 feet long by four feet wide, made by the Eskimos of Herschel Island about 100 miles west of the mouth of McKenzie River and near the Alaskan boundary. The net is made with fresh baleen of the arctic whale *Balaena mysticetus*.

**Jensen Aage J. C.** - Contribution to an Investigation into the Most Profitable Size-limit for Plaice in the North Sea. 1 table, Rapp. Pr.-Verb. Cons. Expl. Mer, XC, 46-48. Copenhague (1934). **b - 1634**

After some introductory remarks, in which the author shows that an investigation of the most profitable minimum size must be made for each single fishery individually, he discusses the size limit for the Danish plaice fishery in the North Sea, considering separately the cutter fishery for « live plaice » generally caught at the outer parts of the Horns Rev nursery grounds and the fishery which lands « iced plaice » from the open North Sea.

**Le Gall J.** - La mort du filet dérivant. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 184-185. Paris (1933). **b - 1635**

**Le Gall J.** - Une senne tournante originale : la senne de Chiffalo. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 447-448. Paris (1933). **b - 1636**

**Marchand J. M.** - Saving-Trawl Investigations in Relation to the Conservation and Regulation of the Agulhas Bank Sole-Fishery. 23 figs., 16 tabl., 2 pl., 1 chart, Fish. & Mar. Biol. Surv., Rep. N° 11, Invest. Rep., 1, 5-61. Pretoria (1934). **b - 1637**

Preface. Introduction. Résumé of recent saving-trawl investigations abroad. Investigations: Introductory. B. Work in the field. C. Results and analysis of the data. Trawl gear and fishing methods utilized. Discussion and summary. Recommendations.

**Marchis E.** - Sur l'emploi des filets dans la pêche côtière (Côtes françaises de l'Océan). - Bull. Trimestr. Enseign. Profess. et Techn. Pêches Marit., XXXVII, 3, (?) (1932). **b - 1638**

**Meseck Gerhard** - Zur Selbsterwärmung von Netzen. - Dtsch. Fischwirtsch., I, 13, 208-209. Berlin (1934). **b - 1639**

Schädigungen, welche durch Selbsterwärmung bei den mit Leinöl konservierten Netzen in der Seefischerei vorkommen. Biologische und chemische Vorgänge, welche das Selbsterwärmen hervorrufen können. Die 7 Phasen, in welche sich diese Vorgänge zerlegen lassen. Gesichtspunkte, die beachtet sein sollen, um die Gefahr der Selbstentzündung der Netze zu verhindern.

**Mikhailov S.** - Coefficient des avaries du chalut dans la Mer de Barents (En russe). - Za Rybn. Ind. Severa, 9, 19-22. Leningrad (1933). **b - 1640**

**Mikhin F.** - Nouveaux types de chaluts (En russe). - Za Rybn. Ind. Severa, 9, 19-22. Leningrad (1933). **b - 1641**

**Rosén N.** - En ny typ av bobbin för trålar. - Ny Svensk Fiskeritidskr., 23, 267-268. Göteborg (1933). **b - 1642**

**Russell E. S .** - Size Limits and Mesh Regulations for Sea Fish. - Rapp. Pr.-Verb. Cons. Expl. Mer, XC, 3-5. Copenhague (1934). **b - 1643**

The present position as regards size limits with respect to the principal species of sea fish. The present position as regards mesh regulations. General considerations and suggestions.

**Wimpenny R. S.** - An Analysis of Arabian Seine Net Hauls on the Sea-Coast near Ashtoum el Gameel, August 1928-May 1929. 3 figs., 4 append., Fish. Res. Direct., Notes & Mem., 2, 1-113. Cairo (1934). **b - 1644**

Introductory. Stations. The economics of the Arabian seine. Seasonal variations in the catch. Local variations in the catch. Probable earnings of the catch. The gear. General composition of the catch. Fish species present. Spawning stocks. General occurrence of the different fish species. Crustacean species present. General occurrence of Crustaceans. Discussion. Summary. Bibliography.

**Conseil Permanent International pour l' Exploration de la Mer** - Summary of Existing Regulations (1933) Regarding Size Limits and Mesh Restrictions for Fish Taken in The Sea or Brackish Water. - Rapp. Pr.-Verb. Cons. Expl. Mer, XC, 6-13. Copenhague (1934). **b - 1645**

Appendix A to the report by E. S. Russell on the « Size Limits and Mesh Regulations for Sea Fish », containing a summary of the information received from members of the Council as to size limits and mesh regulations in force in 1933. It contains also additions and revisions bringing its information up to date to May, 1934. It has been found impossible especially in view of the conditions in the Baltic, to draw a hard and fast line between sea fish and fresh water fish, and therefore data relating to anadromous fish and these found in partially salt waters, have been included in this Appendix. It has one Annexe, containing data on Local Mesh Regulations in Germany (In German).

**Ministry of Agriculture and Fisheries** - The Use of a Large Cod-end Mesh in the Hake Fishery. 1 table, Fish. Notice, 24, 1-7. London (1932). **b - 1646**

Preface by Henry G. Maurice.
Results of the tests show that the use of a large mesh in the cod-end of the trawl (18-19 rows to the yard) saved more than half the undersized hake brought on deck and killed by the smaller or legal minimum mesh (21 rows to the yard).

**An.** - Why Catch Trash ? 3 figs., Fish. Gaz., LI, 9, 8 & 30. New York (1934). **b - 1647**

Description of a new type of trawl which rids haul of rocks, weeds, etc., without loss of fish. Its cod-end is divided in an upper and lower compartment.

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## *Animalia ac esca praebenda - Piscatus hamatilis - Piscatus delectandi causa.*

**Bruni Angelo** - Il libro pratico del pescatore all'amo. 244 ill., 540 pp., Ind. Graf. Ital. Stucchi, Ulrico Hoepli Edit. Milano (1934). **b - 1648**

Il volume diviso in 5 parti comprende: 1) Materiale da pesca; 2) Esche naturali, artificiali, adescamento; 3) Le acque dolci. Fenomeni naturali e atmosferici. Attitudini del pesce. Cause di spopolamento delle acque dolci; 4) Pesche comuni; 5) Pesche sportive.

**Colombo Guido** - Il sedale o filo da pesca. - Boll. Uff. R. Staz. Sper. Seta, 4, 73-74. Milano (1933). **b - 1649**

L' A. descrive la lavorazione casalinga e quella industriale del sedale, filo resistentissimo, lucente e trasparente che deriva da speciale trattamento delle ghiandole serigene, ed è usato per la pesca all'amo e in chirurgia per suture.

**Cooper A. E. (Editor), the Marquess of Sligo, Parker Eric, Babcock Louis, Bartlett P. N. R., Bell A. F., Biden C. Leo, Bonnaire de Maupas G., van Campen Heilner, Donne T. E., Fenney O. W., Fraser-Brunner A., « Seangler », Hannam F. B., Harris J. R., Patterson C. S., « Pelican », Sturch J. A., Summers W. K., Taylor Fred,** etc. - Sea Fishing. 86 pl., 352 pp., The Lonsdale Library, XVII, Seeley, Service and Co., Ltd. London (1934). **b - 1650**

Up-to-date guide to sea fishing for sport. The fish are arranged according to modern classification.

**MacKay Donald C. G.** - The Use of Bait in the British Columbia Crab Fishery. - Ann. Rep. Biol. Board Canada, 1933, 87-88. Ottawa (1934). **b - 1651**

The author ascertains: (1) whether fresh or stale bait is preferred by Crabs; (2) the significance of bait in the catching of Crabs; (3) whether leaving one crab in each trap, as done in Boundary Bay, acts as a lure in lieu of bait.

**McFarlaine A. S.** - Operation of a Bait Storage. - Ann. Rep. Biol. Board Canada, 1933, 58. Ottawa (1934). **b - 1652**

Account of experiments conducted at the Atlantic Fisheries Experimental Station with a view to determine the cost of operation of a small bait storage, both as to time and material, which would enable fishermen to store bait, and thus to continue fishing when fresh bait is not available.

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## *Piscatus in mari alto.*

**Beaugé L.** - La grande pêche en Mer de Barentz. - La Pêche Marit., la Pêche Fluviale et la Piscicult., XVI, 47-49. Paris (1933). **b - 1653**

**Dierks** - Die Hochseefischerei im Dienst der Volksernährung. - Dtsch. Fischwirtsch., I, 28, 481-483. Berlin (1934). **b - 1654**

Leistungen und Aufgaben der deutschen Hochseefischerei; ihre Entwicklung, mit besonderer Berücksichtigung der Heringsfischerei; Massnahmen zur Hebung des Fischverbrauches; Aufgaben des Reichsnährstandes gegenüber der deutschen Hochseefischerei.

**Kolberg F.** - Hochseefischerei an der Murmanküste. - Dtsch. Fischwirtsch., I, 24, 386-388. Berlin (1934). **b - 1655**

Entwicklung der russischen Murman-Fischerei unter der Soviet-Regierung; Bestellung einer Serie von modernen Fischdampfern in Deutschland und Italien; Fischdampferbauten in Soviet-Russland. Die Verschlechterung der Arbeit der Hochseeflotte seit Anfang des Jahres 1934 und ihre Ursachen.

**Groening Albert M.** - Die Dampf-Hochseefischerei im Reichsnährstand. - Dtsch. Fischwirtsch., I, 2, 24-26. Berlin (1934). **b - 1656**

Einige Betrachtungen über die Folgerungen des auf Grund der neuen Gesetzgebung erfolgten Ueberganges der Dampf-Hochseefischerei zu dem Reichsnährstand; die 4 Leitsätze, in welche die zu lösenden sachlichen Angaben der Dampferfischerei sich zusammenfassen; Zukunftsaussichten der deutschen Dampf-Hochseefischerei.

**Lundbeck** - Die Erträge der Hochseefischerei im November. 1 Tab., Dtsch. Fischwirtsch., I, 34, 590-592. Berlin (1934). **b - 1657**

Kurze Betrachtungen und statistische Angaben über die Hochseefischerei in Island, in der Barentssee, an der Bäreninsel, in der Nordsee (Hering) und im Kattegat.

**An.** - Die Dampfhochseefischerei im Reichsnährstand. - Dtsch. Fischwirtsch., I, 8, 126-127. Berlin (1934). **b - 1658**

Eine Stellungsnahme zur Organisation der deutschen Dampfhochseefischerei.

**An.** - Die Hochseefischerei von Boulogne sur Mer im Jahre 1933. - Fischmarkt, II, 5, 134-135. Cuxhaven (1934). **b - 1659**

Angaben über den Gang der französischen Hochseefischerei von Boulogne s/M an Hand eines Aufsatzes im Aprilheft der Fischereizeitschrift « Pêche Maritime ».

## Loca ad piscandum idonea - Mare idem ac factor oeconomicus.

### *Marium momentum oeconomicum - Fundi et loca piscosa - Statistica ad fundos piscosos pertinens.*

**Broch Hj.** - Dalmatias fiskeri og fiskeriforhold. 5 fig., Norsk Geogr. Tidsskr., V, 1, 7-26. Oslo (1934). **b - 1660**

La pesca dalmata, da una parte molto sviluppata dall'altra parte ancora molto indietro, si trova in un periodo di evoluzione. Le condizioni dei pescatori. Differenti metodi di pesca e utensili. Specie principali di pesci. Condizioni della costa, pesca nelle lagune. Amministrazione e legislazione. L'industria delle conserve. La costruzione delle navi e delle barche e sua importanza per lo sviluppo della pesca.

**Eggvin Jens** - Torsken og Fiskehavet 1933 (The Cod and the Sea in 1933). 3. De oceanografiske forhold i Vestfjorden og deres sammenheng med Lofotfisket 1933. (Engl. rés.). 6 fig., Fiskerid. Skr. Ser. Havunders. (Rep. Norw. Fish. Mar. Invest, IV, 7), 15-23. Bergen (1934). **b - 1661**

The most characteristic feature of these oceanographic conditions was the high temperatures predominating from a depth of 85 m. to the bottom. The probable causes of these peculiar conditions. Graphic records of the temperatures and salinities and their anomalies during March-April 1932-33 and 1922-1932, comparison with the conditions of 1933. The abnormal condition of the transition-layer between the coastal water and the deep water, and its influence on the fishing.

**Eggvin Jens** - Oceanographic Conditions at certain Norwegian Fishing Grounds. 9 figs., Rapp. Pr.-Verb. Cons. Expl. Mer (Scient. Rep. North-Eastern Area Comm. 1934), LXXXVIII, 1-11. Copenhague (1934). **b - 1662**

The structure of the Vestfjord. Account and explanation of the unusual temperature and salinity conditions in the Vestfjord during 1933 with a special regard to the wellknown fishery districts Høla and Skraava in comparison with the conditions of 1932 and 1933. Bad results of the fishing caused by change of the water-layers. (See also Rep. Norw. Fish. Mar. Invest., IV, 7, 15, 1934).

**Eitzen J. V.** - Ist die Nordseefischerei unrentabel? - Dtsch. Fischwirtsch., I, 14, 224. Berlin (1934). **b - 1663**

Notwendigkeit die Nordseefischerei mit richtigen Fahrzeugen zu betreiben um ihre Rentabilität zu heben.

**Fischer E.** - Die Küstenfischerei in der Nord- und Ostsee und die Kutterhochseefischerei. - Jahresber. Dtsch. Fisch., 1932, 170-187. Berlin (1933). **b - 1664**

**Jagudina S. I.** - Dynamik des Fischfanges am Aralsee in den Jahren 1929 bis 1931 (In russ., dtsch. Rés.). 29 Tab., 1 Karte, Rep. Aral-Sea Div. Scient. Inst. Mar. Fish., II, 51-102. Araljsk (1933). **b - 1665**

Statistische Angaben über den Fischfang in dem Aral-See in den Jahren 1929-1931, nach den einzelnen Fischarten, nach den einzelnen Fischereien und über die Erträge der Fischerei auf dem Aral-See nach Dekaden geordnet.

**Schnakenbeck W.** - Die biologischen Grundlagen für die Fischerei in der Niederelbe. I. Der gegenwärtige Charakter des Gebietes. 3 Abb., Fischmarkt, I, 9, 256-259. Cuxhaven (1933). **b - 1666**

Ursachen der Verschwierigung der Lage der Elbfischerei. Fischreichtum der Niederelbe. Abgrenzung zwischen dem Ober- und Unterlauf des Stromes. Charakteristika der verschiedenen Abschnitte des Stromes, bzw. der Oberelbe des grosshamburgischen Hafengebietes und des Gebietes, das unterhalb Finkenwärder liegt. Zusammensetzung der Fischfauna in dieser letzten Zone.

**Schnakenbeck W.** - Versuche zur Feststellung von Fischschwärmen durch das Echolot. 1 Abb., Fischmarkt, II, 8, 204-207. Cuxhaven (1934). **b - 1667**

Bericht über Versuche Fischschwärme mit Hilfe von dem sogenannten « Plankton Indikator » von Prof. Hardy in Hull und mit Hilfe von Echolot in Norwegen und in der Nordsee aufzusuchen. Vergleich zwischen den beiden beschriebenen Methoden.

**Schnakenbeck W.** - Die biologischen Grundlagen für die Fischerei in der Niederelbe. 4. Das Vorkommen einzelner Fischarten. 1 Abb., Fischmarkt, II, 10, 258-261. Cuxhaven (1934). **b - 1668**

(Vgl.: « Fischmarkt », 1933, H. 9, 1934, H. 2 u. 6).

Die drei verschiedenen Fischgruppen, welche die Fischfauna der Niederelbe bilden: die Wanderfische und ihr Vorkommen; die ziemlich häufig in der Niederelbe vorkommenden Stammfische; die zahlenmässig wichtigste Gruppe, welche Butt (= Flunder), Stur (= Kaulbarsch, *Acerina cernua*) sowie Plieten (= Güster, *Abramis blicca*) und Brassen (*Abramis brama*) umfasst.

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### *Ars aviaria piscatui applicata ad vada pisces ferentia investiganda.*

**Heldt H.** - Repérage des bancs de Thon par avion. 1 photo, 1 croquis, Stat. Océanogr. Salammbô Notes, 26, 3-12. Tunis (1932). **b - 1669**
Applications à la pêche et étude des migrations du thon à l'aide de l'avion. Observations effectuées au cours de vols au-dessus de la mer.

**Sokolov N.** - Les avions au service de l'industrie de la chasse et de la pêche (En russe). - Za Rybn. Ind. Severa, 4, 53. Leningrad (1933). **b - 1670**

## Industria et commercium fructuum piscatus diversis regionibus.

AMERICAE PROVINCIAE FOEDERATAE.

**Adams W. M.** - New York. 1 ill., Fish. Gaz., LI, 7, 45-47. New York (1934). **b - 1671**
Historical account of the development of the fishing industry in the State of New York ; statistic data on annual catch of commercial varieties of Fishery products taken in Marine District. The Great Fulton Market. The Department of Conservation and the organization and preservation of fisheries. New York's inland fisheries.

**Brennan B. M.** - Washington. 1 ill., Fish. Gaz., LI, 7, 43. New York (1934). **b - 1672**
Some information of the administration and organization of the production of the fishing industry in the State of Washington ; the Department of Fisheries and its activities ; biological investigations.

**Desmond Wm. D.** - Massachusetts. 1 ill., Fish. Gaz., LI, 7, 39-40. New York (1934). **b - 1673**
Importance of the fishing industry of Massachusetts ; statistic data on the fishing fleet, the fishing grounds, the amount of fish landed. Account of investigations carried out by the Bureau of Marine Fisheries. Measures taken in order to organize intensive fishing of the Crabs. Extensive plan of the Bureau for reseeding shellfish area : Act providing for the extermination of starfish in the shellfish areas along the southern shore.

**Diebler O. M.** - Pennsylvania. - Fish. Gaz., LI, 7, 55-56. New York (1934). **b - 1674**
Story of the Pennsylvania fisheries with particular reference to catch of whitefish.

**Fiedler R. H., Manning John R. & Johnson F. F.** - Fishery Industries of the United States, 1933. num. tables., U. S. Dpt. Comm., Bur. Fish., App. I, Rep. Comm. Fish. Fisc. Year 1934, 2-237. Washington, D. C. (1934). **b - 1675**
Summary of the activities of the Division of Fishery Industries and annual review of fishery statistics of the United States. This Division of the Bureau of Fisheries is concerned with : the commercial fisheries, the trade in fishery products, and the fish canning and preserving industries. The information obtained from statistical surveys is published in part 2 of this report, which includes detailed statistical information for the year 1932.

**Nelson J. A.** - North Carolina. - Fish. Gaz., LI, 7, 62. New York (1934). **b - 1676**
After some observations concerned with the importance of the fishing industry for the population of North Carolina and of the depression of this industry during last year, the author gives some information especially concerned with the actual conditions of the shrimp, menhaden, oyster, clam and soft shell crabs industries.

**Scofield W. L.** - California. 1 fig., 1 table, Fish. Gaz., LI, 7, 36-37. New York (1934). **b - 1677**
Report of the condition of the California fishing industry : ninety per cent of the product canned ; poundage in round numbers of the 1933 California catch of the 40 leading species or group of species classed under one name ; canning centers ; fishing conditions ; fishing devices ; fish trade of California.

**Thompson C. F.** - Illinois. - Fish. Gaz., LI, 7, 57-58. New York (1934). **b - 1678**
Illinois as leader in the commercial fish industry ; Chicago a fruitful locality for receipt, processing, and disposition of fresh and salt water catch ; Wabash River production ; Ohio and Kaskaski waters ; operation of six hatcheries ; measures taken against pollution.

**Webster B. O.** - Wisconsin. 1 ill., Fish. Gaz., LI, 7, 59-60. New York (1934). **b - 1679**
Account of the development of the fishing industry in Wisconsin ; principal kinds of fish that are taken in the waters of the State : whitefish, lake trout, chubs, and herring. Development of artificial propagation of commercial fish species.

**M.** - Entwicklung der Fischereiwirtschaft der U.S.A. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 6, 257-259. Berlin (1934). **b - 1680**
Entwicklung und Lage der amerikanischen Fischerei und Fischindustrie nach den Ausführungen des Fischereibüros beim Handelsdepartement in Washington. Statistische Angaben.

**An.** - New Jersey. - Fish. Gaz., LI, 7, 41-42. New York (1934). **b - 1681**
Report on the New Jersey's fisheries ; value of the fish catch in the State : importance of the fish industry to the industrial life of the State ; the single branches of the industry ; its organization ; fishing methods.

**An.** - Michigan. - Fish. Gaz., LI, 7, 42. New York (1934). **b - 1682**
Statistic data on the Michigan fisheries ; this State ranks 9th in value and 13th in volume in the list of all States producing salt-water and fresh-water species.

**An.** - Florida. 1 ill., Fish. Gaz., LI, 7, 47-48. New York (1934).
(—) Fish & Oyster, Rep. XV, 13/14, 5. Tampa, Flo. (1934). **b - 1683**
Statistical data on Florida fisheries. This State is possessor of United States' longest coast line, and accounts for two percent of entire world's production.

**An.** - Connecticut. 1 ill., Fish. Gaz., LI, 7, 48-49. New York (1934). **b - 1684**
Statistic data on the yield of Connecticut's fisheries, its fishing fleet ; importance of the size of its fish and shellfish production ; State bodies which administrate Connecticut's fisheries.

**An.** - Louisiana. - Fish. Gaz., LI, 7, 49-50. New York (1934). **b - 1685**
Data on Louisiana's fisheries, second only to Florida among Southern States from the standpoint of value of the catch, and noted especially for its shrimp, which leads all other species both in quantity and value. A peculiar feature of Louisiana's fisheries is that for bullfrogs (*Rana catesbeiana*).

**An.** - Virginia. 1 ill., Fish. Gaz., LI, 7, 50-51. New York (1934). **b - 1686**
Statistical record of the Virginia's fisheries ; organization and activities of the two separate Departments which are in charge of commercial and sport fishing in Virginia ; the Commission of Game and Inland Fisheries and the Commission of Fisheries of Virginia.

**An.** - Maine. 1 ill., Fish. Gaz., LI, 7, 51-52. New York (1934). **b - 1687**

Statistical record of the fisheries of the State of Maine; number of fishermen and types of gears employed in the fisheries; outstanding position of the lobster and sardine industries; depletion of the lobster fishery.

**An.** - Rhode Island. - Fish. Gaz., LI, 7, 53. New York (1934). **b - 1688**

Statistical data on the fisheries of Rhode Island; text of an article by A. L. Clark, Secretary of Commissioners of Shell Fisheries, dealing with the shellfish fisheries of the State, whose value exceeds that for fin fish by more than a 3 to 1 ratio.

**An.** - Ohio. - Fish. Gaz., LI, 7, 54. New York (1934). **b - 1689**

Prominent position of Ohio as quantity producer of fresh-water species.

**An.** - Minnesota. - Fish. Gaz., LI, 7, 56. New York (1934). **b - 1690**

Statistic data on the commercial fishing of the State.

**An.** - Delaware. 1 ill., Fish. Gaz., LI, 7, 60. New York (1934). **b - 1691**

General data on the fisheries of the State, which, despite of its small size, outranks many other States in the volume of fish and shellfish produced.

**An.** - Indiana. - Fish. Gaz., LI, 7, 60. New York (1934). **b - 1692**

Description of the activities of fish culture work stressed in the State by the Conservation Department; statistical record concerned with Indiana's fishing fleet, and the amount of catch in 1932.

**An.** - Alabama. - Fish. Gaz., LI, 7, 61. New York (1934). **b - 1693**

Brief statistical data on the fisheries of the State.

**An.** - Georgia. - Fish. Gaz., LI, 7, 61. New York (1934). **b - 1694**

Statistical record of the amount and value of the catch, of the fishing fleet and of the gear used in the fisheries of Georgia.

**An.** - Mississippi. - Fish. Gaz., LI, 7, 61. New York (1934).
(—) Fish. & Oyster Rep., XV, 13/14, 5. Tampa, Fla. (1934). **b - 1695**

Important part played by Mississippi in the fishing industry of the United States; statistical records of the total production of the fisheries of the States in 1932 and of those of the shrimp which leads production.

**An.** - South Carolina. - Fish. Gaz., LI, 7, 62. New York (1934). **b - 1696**

Location of South Carolina Fisheries, principal species taken, fishing gears employed, fisheries jurisdiction, capital invested in the fisheries of the State.

**An.** - Fisheries of the United States and Alaska, 1932. 4 tabl., Fish. Gaz., LI, 7, 63-70. New York (1934). **b - 1697**

Statistic tables with data on (1) catch: by sections, (fish, shellfish, etc., whaleproducts), (2) operating units: by sections; (3) catch: by states, and (4) seed oyster fishery.

**An.** - Production of Fresh and Frozen Packaged Fish, 1933. 1 table, Fish. Gaz., LI, 7, 71. New York (1934). **b - 1698**

Table containing statistic data on the production of 22 species of frozen and fresh packaged fish (pounds and values) in the single States of North America.

**An.** - Fishery Products Frozen, 1933. 1 table, Fish. Gaz., LI, 7, 73. New York (1934). **b - 1699**

Table reporting statistic data, by species and months, of the fishery products frozen in 1933, in the United States.

**An.** - Holdings of Frozen Fishery Products, 1933. 1 table, Fish. Gaz., LI, 7, 75. New York (1934). **b - 1700**

Table containing statistic data (by species and months) of the holdings of fishery products in the United States for 33 species of fish.

**An.** - Exports of Fishery Products, 1933. Of Domestic Production. 1 table, Fish. Gaz., LI, 7, 78. New York (1934). **b - 1701**

Statistic data of the edible and non edible fishery products exported from the United States (quantity and value).

**An.** - Imports of Fishery Products, 1933. 1 table, Fish. Gaz., LI, 7, 78. New York (1934). **b - 1702**

Statistic data on edible and non edible fishery products, imported in the United States in 1933 (by quantity and value).

**An.** - Lobster Catch, United States and Canada, 1880-1932. 1 table, Fish Gaz., LI, 7, 95. New York (1934). **b - 1703**

Statistic records (in pounds) on the lobster catch in New England, Middle Atlantic and Canada.

## ANGLIA.

**Heyer F.** - Die heutige Lage der britischen Fischerei. - Fischmarkt, II, 11, 300-301. Cuxhaven (1934). **b - 1704**

Einige Angaben über die Entwicklung und den heutigen Zustand der folgenden vier Gruppen der britischen Fischerei: die Binnenfischerei, die Küstenfischerei, die Fischerei mit Treibnetzen und die mit Schleppnetzen, welche sich nacheinander entwickelt haben.

**Maurices Henry G.** - Sea Fisheries. Statistical Tables 1933. 28 tabl., H. M. Stat. Off., Minist. Agricult. & Fish. 2-49. London (1934). **b - 1705**

Quantity and value of landings, and method and place of capture. Fish landed each year, usually 1913 and 1924-33.Fishermen and fishing vessels. Imports and exports.

**Fishery Board for Scotland** - Sea Fisheries. Statistical Tables, 1933. 31 tabl., H. M. Stat. Off., 4-63. Edinburgh (1934). **b - 1706**

Means of capture. Maximum activity in herring fishing. Personnel. Fish landed. Treatment of catch. Cured fish branded. Fish exported. Summary tables, 1913 and 1925-33.

**La.** - Ueber den Stand der englischen Seefischerei im Jahre 1933. - Fischmarkt, II, 9, 243-244. Cuxhaven (1934). **b - 1707**

Zusammenfassende Wiedergabe der wichtigsten Folgerungen des vom Ministerium für Landwirtschaft und Fischerei für England und Wales herausgegebenen Berichtes über die Seefischerei im Jahre 1933.

## AUSTRALIA.

**Legislative Assembly. New South Wales** - Annual Report on the Fisheries of the New South Wales for the Year 1932. - num. tabl., A. J. Kent, 1-13. Sydney (1933). **b - 1708**

Amount of the catches; usual means of conservations in both tidal and inland fisheries; regulation with respect to the lawful size of fishes; freshwater fisheries; oyster fisheries; imports and exports of fish, prices of fish; personnel, boats and gear employed in connection with the Fisheries of New South Wales.

**State Fisheries Department. New South Wales** - Fisheries (Annual Report of the Fisheries of New South Wales for the Year 1933). 17 tabl., Rep. Print. Comm., 6, 1-12. Sydney (1934). **b - 1709**

Statistical statements concerning the conditions of the fisheries of New South Wales with especial regard to the staff of the Department, the fishermen, the amount of fish captured, the protective measures adopted, and other matters of interest and benefit to fishermen, oyster culturists, and the general public.

CANADENSIS REGIO.

**Grant Ruth Fulton** - The Canadian Atlantic Fishery. 148 pp., Ryerson Press. Toronto (1934). **b - 1710**

Books dealing with the Canadian fishing industry and its problems. Compilation of the story of Canada's Atlantic fisheries and the various factors which have influenced its progress. Some conclusions concerned with the further development and possibilities of the Atlantic Canadian Fishery.

**McKenzie R. A.** - The Inshore Cod Fishery of the Halifax Area. - Ann. Rep. - Biol. Board Canada, 1933, 26-27. Ottawa (1934). **b - 1711**

Account of the fishery oscillation on hand of the results of a statistical investigation of landings; various reasons which may account for the observed summer slack; the moving of the cod as cause of the observed oscillations of catches.

**Dominion Bureau of Statistics** - Fisheries Statistics of Canada 1931. Statistique des Pêches (Texte angl. et franç.). num. tabl., Fish. Stat. Branch, 1-216, 217-273. Ottawa (1932). **b - 1712**

Preface. The Fisheries of Canada. Quantity and value of chief commercial Fishes, 1927-1931. Review of the fisheries of 1931. Summary of production, 1930 and 1931. Agencies of production, 1929-1931. Review by provinces. Fishing Bounty. Foreign trade. Historical review. General tables: I. Fish caught and marketed, 1931 ; II. Agencies of production, 1931 - capital, equipment, employees, etc. ; III. Classification of vessels and boats ; Imports and exports of fish and fishery products, the salmon pack of British Columbia; the lobster pack of Canada 1919-1931. Table for conversion of weights of fish ; fishing bounties ; Fisheries production in 1931.

**An.** - Quebec Fisheries Development Program Proceeds. - Canad. Fisherm., XXI, 7, 10. Gardenvale, Que. (1934). **b - 1713**

Information on the last measures taken by the Quebec Government in order to develop the Gulf of St. Lawrence fisheries and assist the fishermen.

**An.** - Summary of Canadian Fisheries, 1933. 1 table, Fish. Gaz., LI, 7, 95. New York (1934). **b - 1714**

Statistic record of principal species of fish (quantity and value) taken in Canadian waters in 1933.

FINLANDIA.

**Järvi T. H.** - Die Seefischerei von Finnland. 54 Abb., 12 Taf., 1 Tabellenbeil., Handb. Seefisch. Nordeuropas, VIII, 4, 1-73. Stuttgart (1934). **b - 1715**

Die natürlichen Verhältnisse in der östlichen Ostsee. Die Pflanzen- und Tierwelt in den finnischen Meeren. Allgemeiner Charakter der Seefischerei. Rechtsverhältnisse der Fischgewässer. Die Fischerbevölkerung. Ertrag der Seefischerei. Fischereigebiete. Die einzelnen Fischereien.

**Lau.** - Finnland. Fisch- und Seehundfang 1877-1931. 1 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 5, 222-223. Berlin (1934). **b - 1716**

Jahresdurchschnitt (1000 kg.) der Fänge von Lachsen u. Taimen, Renken u. Aeschen, Strömlingen, Maränen u. Stinten, Sprotten, anderen Fischen und Seehunden (nach Tausenden).

GALLIA.

**Krempf A.** - La pêche en Indochine. - Rev. Econ. Franç., LV, 2/3. Paris (1933). **b - 1717**

**Le Gall J.** - Quelques prévisions pour l'année 1933. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 93-94. Paris (1933). **b - 1718**

**Ministère de la Marine Marchande** - Statistique des pêches maritimes. Année 1932. 8 graph., nombr. tabl., Imprim. Nat., Doc. 6006, 5-180. Paris (1934). **b - 1719**

I. Renseignements généraux : Rapport au Ministre de la Marine Marchande. Tableaux annexes. Graphiques de la pêche de la morue, du hareng, de la sardine, de l'ostréiculture, du maquereau, du thon, du homard et de la langouste, du poisson frais ; II. Armement ; III. Personnel ; IV. Production : 1° Production de grande pêche ; 2° Production générale de la pêche en bateau ; 3° Production générale de la pêche à pied et indication du nombre des pêcheurs y prenant part ; 4° Ostréiculture, mytiliculture et autres coquillages, réservoirs à Poissons et à Crustacés ; V. Industries connexes.

**Station Océanographique de Salammbô** - Tableaux Statistiques, année 1931. Pêches maritimes. (Statistiques et renseignements divers). 12 tabl., Stat. Océanogr. Salammbô, Bull. 28, 2-29. Salammbô (1932). **b - 1720**

Statistique de la pêche des Sardines, Anchois, Allaches. Statistique de la pêche du thon. Statistique de la pêche des Eponges. Statistique de la pêche en mer. Quantité (en quintaux) de poisson, par espèces et par mois, débarqué par secteur. Production de la pêche en mer et dans les lacs amodiés. Tableau récapitulatif des pêches maritimes de la Tunisie en 1931. Tableau des pêches concédées ou amodiées en Tunisie au 31 Décembre 1931. Tableau récapitulatif des pêches de la Tunisie depuis l'année 1903. Quantité et valeur (prix de gros) du poisson vendu à la grande criée du Marché Central de Tunis. Réglementation de la pêche côtière. Réglementation de la pêche des Eponges. Décréts et arrêtés relatifs au service des pêches parus en 1931 et jusqu'au 1 Avril 1932.

GERMANIA.

**Jansen Jonni** - Die Zukunft der Hamburger Fischerei. - Fischmarkt, II, 2, 35-36. Cuxhaven (1934). **b - 1721**

Einige Ausführungen, an Hand wirtschaftlicher Angaben, die dazu bestimmt sind den Hamburger Fischern Anregung zu geben, da diese in Zukunft genötigt sind, ihre Fischerei auch fischereiwirtschaftlich zu betreiben, d. h. nicht nur Fang, sondern auch fischereiwirtschaftliche Tätigkeit auszuüben.

**Kuelper W.** - Etwas über die Fischerei in Büsum. - Fischmarkt, II, 4, 97-101, Cuxhaven (1934). **b - 1722**

Einige Angaben über die Schollenfischerei in Büsum ; Entwicklung und Zusammenfall des Schollengeschäftes ; einige Massnahmen, welche zur Hebung der Schollenfischerei dienen könnten.

**Lundbeck J.** - Die Ertragsbedingungen der Schollenfischerei in der Deutschen Bucht. 8 Tab., Fischmarkt, II, 3, 60-67. Cuxhaven (1934). **b - 1723**

Statistische Angaben über die durchschnittliche Dauer der einzelnen Reisen, die Zahl der Fangtage, den mittleren Fang je Fangtat, die Wanderungen der Schollen und die Ver-

änderung der Fangplätze der Kutterfischerei, die drei Hauptfanggebiete, die Veränderungen in den Ertragsverhältnissen von Jahr zu Jahr, den Anteil der Schollenaltersgruppen an den Fängen in den einzelnen Jahren, den Prozent der marktfähigen Schollen. Der Vortrag schliesst mit einigen Betrachtungen über das Wachstempo der jungen Schollen.

**Schmidt B.** - Fische und Schaltiere im deutschen Güterverkehr. 2 Tab., Dtsch. Fischwirtsch., I, 5, 78-79. Berlin (1934). **b - 1724**

Versuch einer Vorstellung von der Gestaltung des Fisch- und Schaltierversandes im Reiche in 1933; Uebersicht über den Eisenbahnfischversand in demselben Jahre.

**Schmidt B.** - Fische und Schaltiere im deutschen Güterverkehr. 3 Tab., Dtsch. Fischwirtsch., I, 7, 112-113. Berlin (1934). **b - 1725**

Statistische Angaben über den gesamten Eisenbahnfischverkehr, den Eisenbahnfischversand der deutschen Seehäfenbezirke und den Wasserstrassenversand von Fischen in Deutschland in 1932.

**Schnakenbeck** - Die Fischereistadt Altona. 2 Abb., Fischmarkt, II, 12, 321-323. Cuxhaven (1934). **b - 1726**

Besprechung des Ergebnisses des photographischen Wettbewerbes « Die Fischereistadt Altona », welchen der Reichsbund « Volkstum und Heimat » ausgeschrieben hat. Besprechung von zwei besonders gelungenen und veröffentlichten Bildern.

**Sund Oscar** - Ueberblick über die Ergebnisse der Marktuntersuchungen an deutschen Fängen aus dem Barentsmeer und von der Bäreninsel in den Jahren 1929 bis 1933. 1 Diagr., 2 Tab., Rapp. Pr.-Verb. Cons. Expl. Mer (Scient. Rep. North-Eastern Area Comm. 1934, LXXXVIII, 1-5. Copenhague (1934). **b - 1727**

Starker Rückgang der älteren Jahrgänge des Kabeljau- und Schellfischbestandes in gewissen Gebieten des Barentsmeeres, besonders im Kanin-Gebiet. Konzentrierung der Fischerei in andere günstigere Gebiete, wie das Bäreninsel- Gebiet. Statistische Tabellen für die Anlandungen in fünf verschiedenen Gebieten während 1929-1934.

**Reichsministerium für Ernährung und Landwirtschaft** - Der Jahresbericht über die deutsche Fischerei 1933. - Dtsch. Fischwirtsch., I, 19, 301-303. Berlin (1934). **b - 1728**

Es werden besonders die folgenden Aufträge berücksichtigt: I. Die Seefischerei (Dr. E. Eichelbaum); II. Die Binnenfischerei (Dr. Röhler); III. Die deutsche Fischwirtschaft im Reichsnährstand (A. R. Giese); IV. Die Arbeiten der Deutschen Wissenschaftlichen Kommission für Meeresforschung (Dr. Heinrici).

**Reichsministerium für Ernährung und Landwirtschaft** - Monatsberichte über die deutsche Seefischerei. 21 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 4, 145-176. Berlin (1934). **b - 1729**

A I: Deutsche Seefischerei-Auktionsstatistik (ohne Ostsee) A II: Deutsche Heringsfischereifangstatistik. B: See- und Küstenfischerei in Preussen. C. See- und Küstenfischerei in den anderen deutschen Ländern. D: Seefischmärkte. E: Uebersicht über die in den deutschen Fischereihäfen versteigerten Fischdampferfänge. Die Angaben betreffen die Monate Januar bis November 1933.

**Reichsministerium für Ernährung und Landwirtschaft** - Monatsberichte über die Deutsche Seefischerei. 12 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 5, 200-219. Berlin (1934). **b - 1730**

Statistische Angaben betreffend den Stand der deutschen Seefischerei und die Seefischerei-Auktionen während der Monate Oktober-Dezember 1933.

**Reichsministerium für Ernährung und Landwirtschaft** - Monatsberichte über die Deutsche Seefischerei. 5 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 6, 248-254. Berlin (1934). **b - 1731**

Statistische Angaben für Januar und Februar 1934: A I: Deutsche Seefischerei-Auktionsstatistik (ohne Ostsee). E: Uebersicht über in den deutschen Fischereihäfen versteigerte Fischdampferfänge.

**Fick.** - Die Hafen- und Elbfischerei im Jahre 1933. - Fischmarkt, II, 3, 79-80. Cuxhaven (1934). **b - 1732**

Kurzer Bericht über die Art der im Laufe des Jahres in den Häfen und auf der Elbe gefangenen Fische und über die gebrauchten Fangsgeräte.

**R. W.** - Die grosse deutsche Heringsfischerei mit Treibnetzen im Jahre 1933. Tab., Fischmarkt, II, 2, 39-43. Cuxhaven (1934). **b - 1733**

Statistische Angaben über die Zahl der Fahrzeuge, das Fangergebnis, die Telefoniesenderanlagen an Bord von Loggern; die Ausübung der Fischereiaufsicht; Grössenzusammensetzung der Fänge; Absatz der DHG-Salzheringe.

**Sch.** - Fischerei im Travegebiet. 2 Abb., Fischmarkt, II, 2, 47-50. Cuxhaven (1934). **b - 1734**

Tätigkeit, Geschichte, Sitte und Siedlung der Fischereigemeinschaft im Travegebiet, nach der Schrift « Fischerei im Travegebiet », Sonderdruck aus den « Schleswig-Holstein-Hamburg-Lübeckischen Monatsheften », H. 5/27, Verl. Fr. Westphal, Lübeck.

**An.** - Die Oberfischmeister berichten über die Küstenfischerei. Fischereibericht für Juli 1934. - Dtsch. Fischwirtsch., I, 18, 287-289. Berlin (1934). **b - 1735**

Bericht über die Witterung, den Fischfang und-absatz in der Nord- und Ostsee im Juli 1934.

**An.** - Der deutsche Trawlheringsfang 1933. 1 Tab., Fischmarkt, II, 1, 13. Cuxhaven (1934).

(—) S. Korrektur dieser Angaben, Fischmarkt, II, 4, 90-92. Cuxhaven (1934). **b - 1736**

Statistische Angaben über die Gesamtfangmenge und die Beteiligung einzelner Fischmärkte und Zunahme seit 1932.

**An.** - Eine alte Statistik über Lachsfänge in der Niederelbe. - Fischmarkt, II, 6, 162. Cuxhaven (1934). **b - 1737**

Einige Angaben von Statistika aus dem 17. Jahrhunderte, die ein Gesamtbild der damaligen Verhältnisse der Lachsfischerei in der Niederelbe geben.

**An.** - Die deutsche Seefischerei im Jahre 1933. 6 Tab., Fischmarkt, II, 10, 261-265. Cuxhaven (1934). **b - 1738**

Nach dem « Jahresbericht über die Fischerei 1933 » herausgegeben vom Reichsministerium für Ernährung und Landwirtschaft. Der vorliegenden Besprechung ist zur Hauptsache der Abschnitt I, « Die Seefischerei » von Dr. Eichelbaum, zugrundegelegt.

## HOLLANDIA.

**An.** - Niederlande. Ergebnisse der niederländischen Seefischerei im ersten Halbjahr 1933. 1 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 4, 178. Berlin (1934). **b - 1739**

Statistische Angaben und Kommentar über das Gesamtergebnis der niederländischen Seefischerei einschliesslich der Anlandungen durch ausländische Fischerfahrzeuge.

**An.** - Niederlande. Ergebnisse der niederländischen Seefischerei im zweiten Halbjahr 1933. 1 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 5, 221-222. Berlin (1934). **b - 1740**

Statistische Angaben und Bemerkungen über den Verlauf der niederländischen Seefischerei (einschl. der Anlandungen durch ausländische Fischerfahrzeuge).

### ITALIA.

**Bini Giorgio** - La pesca nelle nostre colonie. 14 fig., 25 pp., III Corso Magist. Maritt. Pescher. Roma (1933). **b - 1741**

Condizioni fisiche e meteorologiche dei nostri possedimenti del Mediterraneo e dell'Egeo; sistemi di pesca, attrezzi e qualità di prodotti pescati. Influenza delle caratteristiche fisiche e meteorologiche del Mar Rosso sulla industria della pesca. Fauna ittica del Mar Rosso. Attrezzi di pesca preferiti dagli indigeni. Conservazione dei prodotti eduli mediante salatura ed essiccamento al sole. Sistemi di pesca e commercio dei prodotti non eduli: perle, madreperla, tartaruga.

**Da Crevan Gigi** - L'espansione peschereccia nel Levante. 1 fig., Italia pescher., 1, 11. Napoli (1933). **b - 1742**

Possibilità di sviluppo delle nostre industrie del mare verso il Levante.

**Da Crevan Gigi** - La bonifica agraria peschereccia. - Italia pescher., 3/5, 7-8. Roma (1933). **b - 1743**

Come potrebbe essere utilmente trasformata la vasta zona paludosa di « Variconi » nel comune di Castelvolturno. Bonifica idrologica: disciplina delle acque. Fini economici igienici e sociali della bonifica. L'industria della Vallicoltura troverebbe campo propizio nella palude salmastra del basso Volturno.

**Lo Giudice Pietro** - I principali Pesci dei mari italiani interessanti l'alimentazione e l'industria. - 26 pp., (III° Corso Magistrale Marittimo Peschereccio), Tip. Aldo Manuzio, Ist. Tip. Stato. Roma (1933). **b - 1744**

Note biologiche sui Pesci, loro importanza come fonte alimentare e necessità di diffonderne il consumo dato che essi rappresentano un alimento sano, digeribilissimo, completo. Distinzione dei Pesci dei nostri mari in: Selaci o Elasmobranchi e Olocefali o Teleostomi e studio delle singole specie appartenenti a questi gruppi.

**Maggi Umberto** - La pesca e i suoi problemi. - Critica Zootec., 7/8, 281-300. Roma (1934). **b - 1745**

Esame della produzione, del consumo e del commercio dei prodotti della pesca.

**Mola Pasquale** - I nostri paesaggi e i nostri centri pescherecci. L'Arcipelago de la Maddalena e la costa Nord-orientale sarda. 5 fig., Boll. di Pesca, Piscicolt. e Idrobiol., X, 1, 1-17. Roma (1934). **b - 1746**

Caratteri fisici, importanza commerciale dei porti, risorse ittiche e sistemi di pesca di tre importanti centri pescherecci della Sardegna: l'Arcipelago de la Maddalena, Terranova Pausania, e S. Teresa di Gallura.

**Mori Alberto** - Note sulla pesca a Zara e a Lagosta e sull'emigrazione peschereccia nell'Adriatico. 4 fig., 1 tav., Boll. R. Soc. Geogr. Ital., 9/10, 661-680. Roma (1933). **b - 1747**

Esame delle condizioni della pesca a Zara e a Lagosta e dei suoi possibili ulteriori sviluppi.

**Ninni E.** - Pesci stranieri che compariscono sul mercato di Venezia. - Boll. di Pesca, Piscicolt. e Idrobiol., X, 1, 69-76. Roma (1934). **b - 1748**

Accennato alle ragioni dell'importanza del mercato di Venezia e di conseguenza al bisogno dell'esportazione e dell'importazione sua del pesce, l'A. offre un elenco di pesci stranieri che vi affluiscono quasi ogni giorno unitamente a quello delle specie che devono venire escluse dal novero delle adriatiche.

**Parenzan Pietro** - Notizie sul lago d'Averno, dal punto di vista di una possibile valorizzazione peschereccia. - Boll. di Pesca, Piscicolt. e Idrobiol., X, 1, 47-51. Roma (1934). **b - 1749**

Eseguite pescate planctoniche ed esaminate le condizioni generali del lago, risulta che l'Averno si trova in condizioni ottime per lo sviluppo rigoglioso della popolazione ittica d'acqua dolce. Senonchè data l'estensione del bacino e date le difficoltà di pesca, opposte sopratutto dalla densa vegetazione di *Potamogeton* della platea costiera, dall'intorbidamento o pseudointorbidamento periodico dell'acqua, dalla profondità del lago, ne deriva che sia molto più vantaggioso ai fini dell'industria peschereccia ricorrere ai lavori di trasformazione dell'Averno in un lago salso.

**Vinelli Marcello** - La pesca in Sardegna. 11 fig., Le Vie d'Italia, 3, 230, 239. Milano (1933). **b - 1750**

La pesca sul mare: mezzi con i quali essa si pratica. La pesca del tonno: la mattanza. La pesca nei fiumi e negli stagni. Il prodotto.

**C. J.** - L'exploitation de la mer en Erythrée. - Ann. d. Géogr., XLII, 15 Nov., 665. Paris (1933). **b - 1751**

**Monitore (il) Tecnico** - Le iniziative italiane di pesca nell'Atlantico. 2 fig., Monit. Tecn., 10, 999-1004. Milano (1933). **b - 1752**

Il problema della pesca nazionale nell'Atlantico non è solo di natura tecnica ma implica ardue questioni relative al trasporto e alla possibilità di vendita. Tuttavia la Società Italiana di Pesca e Sottoprodotti disponeva di un naviglio di ottime caratteristiche nautiche, ma non per tanto fu soggetta a numerose difficoltà insormontabili di natura tecnica e commerciale. Fu così iniziato un nuovo piano di azione per la costruzione di una flotta peschereccia che desse più affidamento, e così fu allestita una flottiglia comprendente tre navi. Se ne dà qui una ampia descrizione circa le caratteristiche architettoniche e si rileva: 1°) Un'attrezzatura per la pesca con tavolini divergenti e apparato divergente; 2°) Celle frigorifere e sistema di isolamento; 3° Impianto frigorifero e di congelamento. Tipi dell'apparato motore.

### JAPONIA.

**Lancley J. A.** - Production of Salted Codfish in Japan. 1 table, Canad. Fisherm., XXI, 8, 8. Gardenvale, Que. (1934). **b - 1753**

Statistic statements of the production of dried salted and wet salted cod in Japan.

**R.** - Japan. - Die Entwicklung der japanischen Ausfuhr an Fischkonserven im ersten Halbjahr 1933. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 4, 180. Berlin (1934). **b - 1754**

Angaben über den japanischen Fischexport mit besonderer Berücksichtigung seiner Lage auf dem französischen Markte und eines Rückganges infolge des chinesischen Boykotts.

### LITUANIA.

**lydis** - Memelgebiet. - Fischereiergebnisse. 1 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 4, 176-177. Berlin (1934). **b - 1755**

Statistische Angaben über das Gewicht, den Gesamtbetrag in Litas der im Juli-September 1933 gefangenen Fischarten im Memelgebiet, mit begleitenden Bemerkungen über den Stand der Memelseefischerei.

**lydis** - Memelgebiet. Fischereiergebnisse. 1 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 5, 220-221. Berlin (1934). **b - 1756**

Gewicht, Gesamtbetrag in Litas der verschiedenen Fischarten. Bemerkungen über den Verlauf der Fischerei im Memelgebiet während der Monate Oktober und November 1933.

## NORVEGIA.

**Dexbach K.** - La pêche norvégienne dans la région de l'Ile des Ours (En russe). - Za Rybn. Ind. Severa, 9, 33. Leningrad (1933). **b - 1757**

**Sund O.** - La pêche de la morue en Norvège. - Pêche Marit., Pêche Fluviale et Piscicult., XVII, 126-129. Paris (1934). **b - 1758**

**Fiskeridirektøren** - Fiskeriene 1932. Many tabl., Årsber. v. Norg. Fisk. 1932, 1, 1-100. Bergen (1934). **b - 1759**

The Fisheries 1932. Measures for the encouragement of the fishery : 1. Statistics and publications ; 2. Propaganda and instruction ; 3. Export ; 4. Reports of the Inspector ; 5. Experimental research. Biological and oceanographical investigations during 1930-1931.

**Fiskeridirektøren** - Beretninger om torskefisket (utenom Lofoten) og silde-, makrell-, bank- og kveitefisket samt selfangsten i 1932. Tab., Årsber. v. Norg. Fisk. 1932, 5, 1-152. Bergen (1934). **b - 1760**

Tableaux statistiques sur la pêche des régions suivantes de la Norvège : Finnmark, Troms, Nordland, Nord-Trøndelag, Sør-Trøndelag, Møre, Stat, Sogn, Fjordane, Vest-Agder, Bjørnøya et Groenland occidental. Informations sur les quantités de poisson, nombre de pêcheurs, bateaux et engins, valeur et produits industriels de la pêche etc.

**Fiskeridirektøren** - Lofotfisket 1933. 5 Abb., Tab., Årsber. v. Norg. Fisk. 1933, 2, 1-102. Bergen (1934). **b - 1761**

Administration et personnel. Les pêcheurs, les bateaux et le matériel. Les dispositions sanitaires. Le commerce des produits de la pêche. Les conditions météorologiques et la pêche. Tableaux et données statistiques sur le rendement de la pêche et ses produits depuis 1885. Recherches biologiques et océanographiques.

**Fiskeridirektøren** - Lofotfisket 1933. 12 Abb., Tab., Årsber. v. Norg. Fisk. 1934, 2, 1-95. Bergen (1934). **b - 1762**

Administration et personnel. Les pêcheurs, les bateaux et le matériel. Les dispositions sanitaires. Le commerce des produits de la pêche. Les conditions météorologiques et la pêche. Tableaux et données statistiques sur le rendement de la pêche et ses produits depuis 1885. Recherches biologiques et océanographiques.

**Fiskeridirektøren** - Norges Fiskerier 1932. - Norg. off. Stat., IX, 39, 1-46 + 17 pp. Oslo (1934). **b - 1763**

Personnel et matériel. Produit en quantité et valeur. Produit de chaque pêche pendant plusieurs années. La pêche Norvégienne aux bancs du Groenland occidental. Pêche par les étrangers. Capture de Phoques et de Baleines etc. L'exportation des produits de la pêche. Revue statistique par périodes étendues de pêche. Appendix de tableaux de 17 pp.

**M.** - Förderung des Fischexports in Norwegen. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 4, 143. Berlin (1934). **b - 1764**

Zusammenfassung der seitens der norwegischen Regierung getroffenen Massnahmen zur Erhaltung und Erweiterung des Fischexportes in Norwegen.

**Stt.** - Norwegen. - Ergebnisse der Seefischerei 1933. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 6, 255-257. Berlin (1934). **b - 1765**

Die Winterheringsfischerei. Die grosse Dorschfischerei. Das Ergebnis der Makrelenfischerei. Die Fischerei auf den Bänken. Die Frischfischausfuhr.

## SUETIA.

**Hessle Chr.** (aus Schwed. übers. v. **L. Liepmann**) - Die Schwedische Ostseefischerei. 33 Abb., 8 Taf., Handb. Seefisch. Nordeuropas, VIII, 3 b, 1-31. Stuttgart (1934). **b - 1766**

Klimatische, hydrographische und biologische Verhältnisse. A. Geschichtliche Entwicklung. B. Die Fischerbevölkerung. C. Fischereimethoden, -geräte und- erträge: 1. Hering, 2. Sprott, 3. Dorsch. 4. Scholle. 5. Flunder. 6. Kliesche. 7. Lachs und Meerforelle. 8. Aal. 9. Brackwasserfische. D. Fahrzeuge. E. Fischhandel und Fischindustrie. F. Robbenjagd. Literaturverzeichnis.

**An.** - Fiske, år 1931. - Sveriges Offic. Statist. Stockholm (1933). **b - 1767**

## U. R. S. S.

**Drjaghin P. A.** - Les ressources ichtyologiques de la Yakoutie (En russe). 2 tabl. h. t., 94 pp., Trudy Sov. Izutsch. Proizv. Sil, Acad. Sc., Leningrad (1933). **b - 1768**

L'A. étudie la faune ichtyologique des fleuves Khatanga, Olenek, Lena, Jana, Indighirka, Alazja, Boljschaja Tchoukhotschja, Kolyma et Tchaouna, ainsi que des lacs, de leur bassin, et de leurs embouchures dans la Mer Polaire. Il met en évidence l'importance de cette région pour l'industrie de la pêche.

**Kaganovskij A. G.** - Commercial Fishes of the Anadyr River and the Anadyr-Lagoon (In Russ., Engl. Rés.). - Bull. Far East. Branch Acad. Sc. U. S. S. R., 1/2/3, app. 3-5. Vladivostok (1933). **b - 1769**

Description of 13 of the 21 species of Fishes from the region under consideration. Their main characteristics, times of their migrations, breeding, average size, weights and fishing gears employed for their catch.

**Kaganovskij A. G.** - The Commercial Fisheries of the River and the Anadyr Lagoon (In Russ., Engl. Rés.). - Vestn. Daljne-Vost. Filiala Akad. Nauk. 1/2/3, 137-139. Vladivostok (1933). **b - 1770**

**Yessipov W. K.** - Bibliographic Index of Fishery-Economics in the European North of the U. S. S. R. 220 pp., Edit. Dept. of Arctic Inst. Leningrad (1934). **b - 1771**

This index embraces all the works in Russian language, published from 1917 to 1933, concerning : ichthyology, fishery, hunting of sea-Mammals, and the exploitation of the marine *Algae*. About 1400 papers are recorded, some of which are followed by a short abstract.

**Zernov S. A.** - Étude du rendement des fonds des mers soviétiques (En russe). 7 fig., Trudy Nojabr. Sess. Acad. Naouk, 345-358. Leningrad (1933). **b - 1772**

**F. K.** - Die russische Fischerei im ersten Halbjahr 1934. - Dtsch. Fischwirtsch., I, 18, 289-290. Berlin (1934). **b - 1773**

Vf. berichtet über die von Russland geplante Absatzausweitung im Auslande und die in der russischen Fischerei eingeschlagene Richtung zur Förderung der dortigen Produktion. Eine Auseinandersetzung über die Organisation der russischen Fischwirtschaft ist bereits in Heft 10, S. 159 derselben Zeitschrift erschienen.

**Stt.** - Der Heringabsatz nach Russland. - Fischmarkt, II, 2, 50-51. Cuxhaven (1934). **b - 1774**

Zusammenhang zwischen der künftigen Entwicklung der Salzheringfischerei und einem halbwegs regelmässigen Geschäft mit Russland.

VARIA.

**Bank S.** - La domination de la mer (En russe). Karelo-Murm. Kraj. 9/10, 59-61. Leningrad (1933). **b - 1775**

La pêche au chalut dans la Mer de Barentz.

**Bower Ward T.** - Alaska Fishery and Fur-Seal Industries in 1933. num. tabl., U. S. Dpt. Commerce, Bur. Fish., App. II to Rep. Comm. Fish. Fiscal Year 1934, 239-312. Washington, D. C. (1934). **b - 1776**

Introduction. Fishery industries : New fishery regulations. Annette Island Fishery Reserve. Stream improvement. Stream marking. Stream guards. Vessel patrol. Complaints and prosecutions. Territorial fishery legislation. Territorial license tax. Water-power projects in Alaska. Kuskokwim River. Yukon River. Weirs for counting salmon escapement. Salmon life-history studies. Observations on the escapement of salmon. Hatcheries. General statistics of the fisheries. Salmon. Herring. Halibut. Cod. Whales. Clams. Shrimp. Crabs. Trout. Miscellaneous fishery products. Fur-seal industry.

**Eichelbaum E.** - Die Seefischerei. - Jahresber. Dtsch. Fisch., 1932, 5-132. Berlin (1933). **b - 1777**

**Le Breton** - La pêche au Maroc, en constante progression est appelée à un remarquable développement. - Pêche Marit., Pêche Fluviale et Piscicult., XVII, 256-257. Paris (1934). **b - 1778**

**Liebman E.** - Contributions to the Knowledge of Palestine Sea Fishes. - Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, Annexe II, 317-327. Paris (1934). **b - 1779**

The A. indicates the more common Fishes, most of which play a considerable rôle in the fisheries of Palestine. Besides stating their importance in supplying the local markets, short notes are added on their peculiarities, occurrence and migration, the latter being often correlative with their spawning season.

**Neubaur Rud.** - Mehr und bessere Statistik. - Dtsch. Fischwirtsch., I, 33, 568-570. Berlin (1934). **b - 1780**

Nach der Betonung der Unentbehrlichkeit einer tadellosen Statistik im Kampfe um die Besserung der Lage der deutschen Fischerei, berichtet Vf. über Massnahmen um solch eine Statistik in Deutschland auf Fuss zu stellen.

**Puttkammer Walter** - Die polnische Seefischerei im Kampf um ihre Entwicklung. 2 Tab., Dtsch. Fischwirtsch., I, 20, 319-320. Berlin (1934). **b - 1781**

Bericht über die Verhältnisse der polnischen Seefischerei. Zusammenarbeit mit Holland durch die Gründung von zwei polnisch-holländischen Fischerei-Gesellschaften. Zusammenstellung der polnischen Fischfänge. Ausbau des Fanges und Entwicklung und Rationalisierung des polnischen Fischhandels. Die Absatzverhältnisse.

**Radcliffe Lewis** - Fisheries of the World. 1 table, Fish. Gaz., LI, 7, 19. New York (1934). **b - 1782**

Statistic data on persons engaged, fishing vessels, investment, products (in pounds and value) of the fisheries of 63 countries.

**Smetanine K.** - Nouvelles données sur la pêche mondiale (En russe). - Za Rybn. Ind. Severa, 2/3, 46-49. Leningrad (1933). **b - 1783**

**Thompson D' Arcy W.** - Bulletin Statistique des pêches maritimes des Pays du Nord et de l'Ouest de l'Europe publié par le Bureau du Conseil. Tabl., 2 cartes, Cons. Perm. Expl. Mer, XXII, 4-79. Copenhague (1934). **b - 1784**

Charts of statistical areas. Part I : A brief summary of statistical tables. North Sea Fisheries. « Small fish » in the North Sea Catch. The fisheries of the Skagerak and Kattegat. The herring fishery. Appendix : Distribution of Norwegian Fisheries in Northern Waters. Greenland fisheries 1911-1932. Part II : General tables. Special tables. Monthly tables. Names of Fishes.

**Verbrugghe L.** - Die belgische Seefischerei. 1 Karte, 300 Abb. im T. u. auf 9 Taf., Handb. Seefisch. Nordeuropas, 3, 1-36. Stuttgart (1932). **b - 1785**

Einleitung. A. Historische und technische Entwicklung der Seefischerei : 1. Die Zeit von Julius Caesar bis zu Karl V. 2. Von der Reformationszeit bis 1830. 3. Der Zeitraum von 1830 bis 1915. 4. Die Entwicklung von 1914 bis zur Gegenwart. B. Der heutige Stand der Seefischerei : 1. Die Fanggründe. 2. Die Fahrzeuge. 3. Die Fischereigeräte. 4. Die Fischarten. 5. Der Absatz der Fänge. 6. Neuere Massnahmen zur Förderung der Seefischerei. 7. Gesetze und Verordnungen. 8. Fischerei-Verwaltung.

**Wimpenny R. S.** - The Fisheries of Egypt. 9 figs., Sc. Progress, XXIX, 114, 210-227. London (1934). **b - 1786**

The total yield in 1932, 1931, 1930, 1929 and 1928 that comes from three sources the lakes, the sea and the Nile. The more important Egyptian food Fishes. Comparison of the value of Egyptian fish of other times with those of our days. Fry introductions. Fluctuations. The sea fishery. Research.

**F. K.** - Lettland. - Die Fischerei im Jahre 1931. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 6, 254-255. Berlin (1934). **b - 1787**

Angaben der amtlichen Statistik.

**New Zealand** - Report on Fisheries for the Year Ended 31st March, 1933. - Mar. Dpt. Wellington, N. Z. (1934). **b - 1788**

**Roinn Tailte Iascaigh** (Department of Lands and Fisheries). Report on the Sea and Inland Fisheries and Gaeltacht Services for 1929 and 1930. 1 table, 2 figs., 19 append., Stat. Off., 5-58. Dublin (1933). **b - 1789**

I. Sea Fisheries. Sea Fisheries Association of Saorstat Eireann, Limited ; II. Inland Fisheries. Gaeltacht Services. The appendices contain statistic statements concerned with the different branches of the fisheries and fishing industries and research.

**An.** - Spaniens Fischindustrie, eine der Haupteinnahmequellen des Landes. - Dtsch. Fischwirtsch., I, 36, 629-630. Berlin (1934). **b - 1790**

Kurze Uebersicht der Entwicklung der Spanischen Fischerei in den letzten Jahren, des Ertrages seiner Fischindustrie, seiner Fischkonservenproduktion und seines Fisch- und Fischerzeugnis-Handels im In- und Auslande.

**An.** - Die Internationale Fischereistatistik für 1931. Tab., Fischmarkt, II, 1, 13-17. Cuxhaven (1934). **b - 1791**

Bericht mit ausführlicher Inhaltswiedergabe über die für das Jahr 1931 von der Internationalen Meeresforschung veröffentlichten Fangstatistik für die nordeuropäischen Länder, welche im Jahre 1933 etwas verspätet erschienen ist.

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### *Mercatus - Statistica ad instituta piscatoria applicata.*

**Behre A. & Schnakenbeck** - Handelsbezeichnungen von Fischen und Fischzubereitungen. - Fischmarkt, II, 5, 120-125. Cuxhaven (1934). **b - 1792**

Ausführungen über Aufgaben, Richtlinien und Grundsätze von Lebensmittelgesetz und Lebensmittelkontrolle in Antwort auf einen Aufsatz von Prof. Dr. Schnakenbeck in « Fischmarkt », nº 3, S. 64, 1934, in welchem dieser zu zwei Aufsätzen vom Vf. in der « Zeitschrift für Untersuchung der Lebensmittel » 1932 und im « Fischerboten » vom Februar 1934, Stellung nimmt, nebst einer Antwort von Prof. Schnakenbeck auf die obigen Ausführungen.

**Bueckmann A.** - Seefischereistatistik und biologische Untersuchungen an den Fischmärkten. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 5, 182-189. Berlin (1934). **b - 1793**

I. Die Hauptprobleme der marinen Fischereibiologie und die Bedeutung biologisch-statistischer Untersuchungen für ihre Lösung: 1. Die Ueberfischungsfrage. 2. Biologisch-statistische Untersuchung zur Beurteilung von Schonmassnahmen. 3. Die Ertragsschwankungen. 4. Biologisch-statistische Untersuchung über die Wanderung der Fische. II. Die Organisation der statistisch-biologischen Untersuchungen: 1. Die Seefischereistatistik. 2. Die biologischen Marktuntersuchungen.

**Ciuffa Emilio** - L'organizzazione della vendita dei prodotti della pesca ed i mercati all'ingrosso. - Boll. Pesca, Piscicolt. e Idrobiol., IX, 5, 888-896. Roma (1933). **b - 1794**

Stabilito che la funzione commerciale ha specifico carattere integrativo del fatto produttivo, nel campo peschereccio, provvedendo non solo al semplice smistamento ed al trasporto della merce, ma anche alle più difficili cure della conservazione e della valorizzazione, si esamina l'organizzazione della vendita del prodotto da parte dell'impresa di produzione e i problemi inerenti all'organizzazione di un mercato all'ingrosso del pesce.

**Despott Giuseppe** - Omologazione delle voci dei mercati del pesce di Malta e Gozo. - Boll. Pesca, Piscicolt. e Idrobiol., X, 2, 243-250. Roma (1934). **b - 1795**

Riferimento dei nomi latini e maltesi del materiale ittiologico relativo alla regione melitense.

**Edser T. & Crouchen S. H.** - Observations on the Accuracy of the Collection of Fishery Statistics. 2 tabl., Journ. Cons. Expl. Mer, IX, 83-86. Copenhague (1934). **b - 1796**

After a short recapitulation of the methods described in Rapp. et Pr.-Verb., Vol. XXXVI, the A.A. deal with the difficulties met with in obtaining correct values of the quantities and prices of the landings. The total value having however been proved to have a rather high degree of reliability the average value conversed into cwt may be considered substantially accurate.

**Eichelbaum** - Vor einer umfassenden Marktordnung für die gesamte Fischwirtschaft. 1 Tab., Dtsch. Fischwirtsch., I, 26, 453-454. Berlin (1934). **b - 1797**

Grundsätze und Richtlinien für die Behandlung und Bearbeitung der Angelegenheiten der Fischwirtschaft im Reichsministerium für Ernährung und Landwirtschaft.

**Hilker Chr.** - Das Erzeugnis der deutschen Fischindustrie als Begriff der « Marke » in der Werbung. - Dtsch. Fischwirtsch., I, 27, 470-471. Berlin (1934). **b - 1798**

Einige Betrachtungen über die Möglichkeit das Erzeugnis der deutschen Fischindustrie als Begriff eines Markenartikels in der Verbraucherschaft zu verankern.

**Kunz Karl** - Unhaltbare Zustände am Berliner Frischfischmarkt und deren Auswirkung auf den Berliner Räuchfisch- Gross- und Letzthandel. - Dtsch. Fischwirtsch., I, 5, 75-76. Berlin (1934). **b - 1799**

Betrachtungen über die Notwendigkeit einer Neuorganisation der Fänge und deren Absatz, mit besonderer Berücksichtigung der Sprott-, Hering- und Plattfischfischerei.

**Laurinat K.** - Absatzförderung der frischen Seefische durch Qualitätsbehebung. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 5, 190-193. Berlin (1934). **b - 1800**

Qualitätsbehebung der auf den Markt kommenden frischen Seefische durch das Wirkungsvollermachen des beim Anbringen und Lagern der Seefische zum Kühlhalten dienenden Eises durch geeignete Zusätze. Ergebnisse der Vor- und Hauptversuche.

**Ninni E.** - Pesci stranieri che compariscono sul mercato di Venezia. - Boll. Pesca, Piscicolt. e Idrobiol., X, 1, 69-76. Roma (1934). **b - 1801**

Dopo aver accennato all'importanza del mercato di Venezia e di conseguenza al bisogno dell'esportazione e dell'importazione del pesce, l'A. offre un elenco di pesci stranieri che vi affluiscono quasi ogni giorno unitamente a quello delle specie che devono venire escluse dal novero di quelle adratiche.

**Schnakenbeck W.** - Handelsbezeichnungen von Fischen und Fischereierzeugnissen. - Fischmarkt, II, 3, 67-73. Cuxhaven (1934). **b - 1802**

Kritische Betrachtungen über zwei Aufsätze von Prof. Dr. A. Behre, Altona, von denen der erste bereits 1932 in der « Zeitschrift für Untersuchung der Lebensmittel » (1932, Bd.64, H. 5), der zweite in « Fischerbote » (1934, H. 2) erschienen ist.

**Schwädke** - Zur Bedeutung der Fischmarktberichte in der Tagespresse für die Fischwirtschaft. - Dtsch. Fischwirtsch., I, 2, 23-24. Berlin (1934). **b - 1803**

Wichtigkeit der regelmässigen Berichte über den Fischmarkt für die deutsche Fischwirtschaft, für welche infolge ihrer Aufnahme in den Reichsnährstand das Interesse der Oeffentlichkeit sehr rege geworden ist.

**Schwädke** - Die Berliner Zentralmarkthalle gibt dem Fischgrosshandel neue Verkaufsstände. - Dtsch. Fischwirtsch., I, 20, 317-319. Berlin (1934). **b - 1804**

Ein Schritt zur Neugestaltung des Berliner Fischmarktes.

**Industrie & Handelskammerverband Niedersachsen-Kassel** - Fisch- und Feinkost-Industrie und -Handel im IV. Quartal 1932. - Fische u. Fischw., 2, 27-28. Braunschweig (1933). **b - 1805**

Fischindustrie, Hochseefischerei, Heringsfischerei, Treibnetzfischerei, Fischhandel, Feinkost-Industrie, Blechwaren-Industrie.

**Ministry of Agriculture and Fisheries** - Retail Trade Names for Fish. - Fish. Notice, 23, 1-6. London (?). **b - 1806**

Names suggested for use in the sale of fish to the public, together with the corresponding scientific names and general English equivalents (synonyms bracketed).

**E. P.** - Der schweizerische Seefischmarkt. 1 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 5, 196. Berlin (1934). **b - 1807**

Rolle der Schweiz als Absatzgebiet für die deutsche Seefischerei. Verbrauch von Seefischen in diesem Lande. Die Konkurrenz Norwegens.

**An.** - Review of Salt Fish Trade. 1 table, Canad. Fisherm., XXI, 8, 10-11. Gardenvale, Que. (1934). **b - 1808**

Summary of the Annual Review of the Salt Fish Trade

published by Hawes & Co., Ltd., salt fish merchants with headquarters in London and various ports in Spain, which is regarded as an authoritative annual summary of conditions in the salt fish trade of the world.

**An.** - Developing Home Market for Fish. - Canad. Fisherm., XXI, 11, 10-11. Gardenvale, Que. (1934). **b - 1809**

Canadian Fisheries Association's presentation summarized before the Price Spreads Committee and containing data on the depressed conditions of the Canadian fisheries and the ways and means of alleviating those conditions.

**An.** - Marktregelung im Bereiche des Fischgrosshandels. - Dtsch. Fischwirtsch., I, 11, 173-174. Berlin (1934). **b - 1810**

Betrachtungen über die Gründung, die Ziele, die Organisation und die zukünftige Tätigkeit des Wirtschaftlichen Verbandes des deutschen Fischgrosshandels.

**An.** - Landings at Boston, Gloucester, Portland, 1933. - Fish. Gaz., LI, 7, 78. New York (1934). **b - 1811**

Statistic data on the amount, average value and principal fish species landed in the three ports; leading position of haddock and cod.

**An.** - Miscellaneous By-Products, 1933. 1 table, Fish. Gaz., LI, 7, 97. New York (1934). **b - 1812**

Statistic record on dried and acidulated scrap, fish meal, oil, liquid glue, and other miscellaneous by-products of fisheries produced in the Atlantic and Gulf Coasts, and on the Pacific Coasts (including Alaska), in 1933.

**An.** - Statistique des régions de pêche, année 1933 (I^er^ Semestre). tabl., 2 cartes, Rev. Trav. Off. Pêches Marit., VII, 1, 103-111. Paris (1934). **b - 1813**

Cartes de la distribution des lieux de pêche et tableaux indiquant la désignation des produits pêchés et des régions.

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### *Piscationis fructuum vectura - Mercium collectio - Pretia et taxationes - Subvectiones.*

**De Angelis Ruggero** - I trasporti del pesce e la sua conservazione. - III Corso Magistr. Maritt. Pescher., 3-15. Roma (1933).

(—) Boll. Pesca, Piscicolt. e Idrobiol., IX, 5, 869-875. Roma (1933). **b - 1814**

Nozioni generali di fisica. Isolanti: loro coefficiente di conducibilità termica e qualità che da essi si esigono. Refrigerazione: macchine frigorifere e vari agenti frigoriferi. Condizioni per realizzare un eccellente imballaggio. Vari mezzi di trasporto e convenienza economica di esso su via ordinaria o su via ferrata. Conservazione del pesce per refrigerazione o per congelazione. Vari modi di lavorazione e di conservazione del pesce. Industrie italiane.

**De Wet J. P.** - Air Transport of Fish in Winter. 3 figs., Canad. Fisherm., XXI, 5 & 11. Gardenvale, Que. (1934). **b - 1815**

The experiences on fish transportation by airplane during the winter 1934, deliberately planned to find out whether air transport can be a practical and profitable operation permanently.

**Dierks** - Erfüllte und noch nicht erfüllte Wünsche der Fischwirtschaft an die Reichsbahn. - Dtsch. Fischwirtsch., 34, 585-588. Berlin (1934). **b - 1816**

Betrachtungen über die Möglichkeit die Verhältnisse des Fischtransportes seitens der Reichsbahn zu verbessern.

**Fiske W. B.** - Modern Delivery Facilities Spur Booth's Business. 1 ill., Fish. Gaz., LI, 1, 17-18. New York (1934). **b - 1817**

Description of new latest style delivery equipment and the efficient order department at the plant of the Booth Co. at Cleveland.

**Kverum Harald** - Die Norwegischen Staatsbahnen als Förderer der Fischwirtschaft in Norwegen. - Dtsch. Fischwirtsch., I, 34, 589-590. Berlin (1934). **b - 1818**

Beschreibung der in Norwegen von den Staatsbahnen getroffenen Massnahmen zur Förderung der norwegischen Fischwirtschaft.

**Nickerson M. H.** - A Live Lobster Lesson. - Canad. Fisherm., XXI, 5, 27-28. Gardenvale, Que. (1934). **b - 1819**

Hints concerned with the transport of live Lobsters by airplanes in the South Pacific.

**Nickerson M. H.** - Another Lobster Lesson. - Canad. Fisherm., XXI, 8, 16. Gardenvale, Que. (1934). **b - 1820**

Some indications on packing live lobster with special reference of the severe wound made by plugging the claw and the asphyxiation of lobster by melting of the fresh water ice.

**Steffen Walther** - Günstige Neuregelung der Umsatzsteuer. - Dtsch. Fischwirtsch., I, 27, 467-468. Berlin (1934). **b - 1821**

Was muss die Fischwirtschaft von den neuen Steuergesetzen vom 16. Oktober 1934, insbesondere vom Umsatzsteuergesetz wissen?

**Watson D. W.** - Paper Wrapping Prevents Deterioration of Fish in Packages. - Canad. Fisherm., XXI, 7, 25-28. Gardenvale, Que. (1934).

(—) See also: Fish & Oyster Rep., XV, 13/14, 2 & 10-11. Tampa, Fla. (1934). **b - 1822**

Description of an experiment undertaken by the A. in order to study the insulation and protective properties of paper, which confirms these properties and suggests an even wider use in maintaining quality in the marketing of fish.

**Wilke** - Die Leistungen der Reichsbahn für die Hochseefischerei. - Dtsch. Fischwirtsch., I, 34, 488-489. Berlin (1934). **b - 1823**

Würdigung der Mitarbeit der Reichsbahn zur Erschliessung des Hinterlandes der Fischereihäfen für den Absatz der Fänge und der aus den Fängen hergestellten Erzeugnisse der Seefischindustrie.

**An.** - Fish Transport by Airplanes. - Canad. Fisherm., XXI, 1, 11. Gardenvale, Que. (1934). **b - 1824**

Account of the first serious attempt of Manitoba fish companies to apply to their benefit the services of the airplane in the transportation of fresh fish to rail head.

**An.** - Package Modernization. 8 figs., Fish. Gaz., LI, 3, 13. New York (1934). **b - 1825**

Description of materials and methods for improving containers, wrappers, labels, and packaging technique shown at New York Exposition on March 13-16, 1934.

**An.** - Lobster Shippers Adopt Improved Container. 2 figs., Fish. Gaz., LI, 4, 15. New York (1934). **b - 1826**

Description of a new barrel, which represents important advantages, now used by several Maine and Massachussetts lobster producers.

**An.** - A New Style Lobster Pack. 1 fig., Fish. Gaz., LI, 9, 15 & 30. New York (1934). **b - 1827**

Description of a new style « pack » that bids well to revolutionize the canning of lobster ; it consists in using more brine and only claw and tail meat in new addition to line.

**An.** - Fishery Products. - U. S. Tariff Comm. Rep., 2nd ser., 69. Washington, D. C. (1933). **b - 1828**

## Residua, Olea, Axungiæ, Farinæ, Collæ.

### *Residua et reiectanea.*

**Alfonsi Bianca** - La lavorazione del pesce e i residuati. - Boll. Pesca, Piscicolt. e Idrobiol., IX, 5, 876-887. Roma (1933). **b - 1829**

Vari metodi attualmente in uso per la conservazione del pesce : refrigerazione, congelamento, sterilizzazione a mezzo del calore (processo Appert), essiccamento, salagione, affumicamento, marinatura. Sottoprodotti del pesce : residui in farina e olio di pesce ; loro utilizzazione industriale.

**Alfonsi Bianca** - La lavorazione del pesce e i residuati. - Ind. Ital. Cons. Alim., 2, 43-48. Parma (1934). **b - 1830**

Rilevata la necessità di assicurare al prodotto della pesca catturata, una buona conservazione, per poterlo agevolmente distribuire in paesi lontani dal campo di pesca ed evitare deterioramenti per opera di organismi unicellulari che attaccano la sostanza organica, si indicano i vari sistemi di conservazione basati per lo più su elementi capaci di arrestare lo sviluppo dei microrganismi (temperatura, secchezza di ambiente, antisettici ecc.). I sistemi maggiormente in uso sono i seguenti : refrigerazione e congelamento, sterilizzazione a mezzo del calore (processo Appert), essiccamento, salagione, affumicamento, marinatura. Il materiale grezzo non direttamente utilizzato nell'alimentazione umana, viene sottoposto ad una serie di manipolazioni, e trasformato in farina ed olio di pesce.

**Johnston W. W. & Beatty S. A.** - The Preparation of an Artificial Horn from Fish Muscle (Preliminary Communication). - Contr. Canad. Biol. & Fish., VIII, 36, 531-542. Toronto (1934). **b - 1831**

An attempt has been made to investigate the suitability of fish proteins as a substitute for casein in the artificial horn industry. It has been found possible to prepare from certain varieties of fish muscle an artificial horn with properties resembling in many respects the artificial horn prepared from milk protein.

**Svitaschev M.** - Utilisation des déchets de poissons pêchés à bord des chalutiers (En russe). - Za Rybn. Ind. Severa, 4, 35-39. Leningrad (1933). **b - 1832**

**An.** - Oyster-Shell Products, 1933. 1 table, Fish. Gaz., LI, 7, 96. New York (1934). **b - 1833**

Statistic record on crushed oyster-shell for poultry feed and oyster-shell lime produced in the United States in 1933.

**An.** - Marine Pearl-Shell Products, 1933. 1 table, Fish. Gaz., LI, 7, 96. New York (1934). **b - 1834**

Statistic record on pearl buttons and novelties produced with marine pearl-shell in various States of North America.

**An.** - Menhaden Industry Products, 1933. 1 table, Fish. Gaz., LI, 7, 96. New York (1934). **b - 1835**

Statistic record of number of menhaden utilized, of dry scrap and meal, acidulated scrap and menhaden oil produced in 1933 in New Jersey, Delaware, Georgia and Florida, Virginia, and North Carolina.

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### *Farina ichthyca.*

**Beatty S. A.** - Fish Meal. - Ann. Rep. Biol. Board Canada, 1933, 50. Ottawa (1934). **b - 1836**

Development of the fish meal industry and trade. Account of the experimental work persecuted by the Atlantic Station in order to determine the quality of fish meals now produced, as well as the most drastic condition of temperature, air flow, etc., to which fish scrap can be subjected without perceptibly impairing the feeding qualities of the meal.

**Jaegersberg August** - Ein Beitrag zur Organisation der Fischmehlwirtschaft. - Dtsch. Fischwirtsch., I, 8, 125-126. Berlin (1934). **b - 1837**

An Hand der im Berichte über den Fischmehlmarkt (S. : « D. Fischw., 3, 55-56, 1934) veröffentlichten Zahlen, bespricht Vf. die notwendigen Massnahmen zur Förderung und Erhaltung der deutschen Fischmehlfabrikation, mit besonderer Berücksichtigung einer freiwilligen Vereinigung der deutschen Fischmehlfabrikanten zur Regelung der Einfuhr von ausländischen Fischmehlen.

**Jaegersberg August** - Die Neuordnung der deutschen Fischmehlwirtschaft. - Dtsch. Fischwirtsch., I, 27, 469-470. Berlin (1934). **b - 1838**

Rückblick und Ausblick betreffend die deutsche Fischmehlproduktion.

**Maldura C. M.** - Le farine di pesce e il loro impiego nella pollicoltura. - Atti V Congr. Mond. di Pollicolt. (Roma, 6-15 sett. 1933-XI) Rapp. Gen. e Comun. di Sez. (1ª e 2ª), II, 651-657. Roma (1934). **b - 1839**

L'A. dà alcune notizie sullo sviluppo dell'industria dei sottoprodotti della pesca nelle varie nazioni, soffermandosi principalmente sulle farine di pesce. Dopo aver trattato della composizione chimica e del valore alimentare di queste farine, l'A. descrive i procedimenti più in uso per la loro lavorazione, quindi accenna alla importanza che esse hanno nell'alimentazione del pollame e dà infine alcune norme generali per il loro impiego pratico.

**Manning J. R.** - La farine de poisson et la nourriture des animaux. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 481-483. Paris (1933). **b - 1840**

**Schulze** - Die deutsche Fischwirtschaft und das Fischmehl. - Dtsch. Fischwirtsch., I, 5, 76-77. Berlin (1934). **b - 1841**

Die neue Regelung des Fischhandels und der Fischmehlfabrikation in Deutschland. Möglichkeit für die deutschen Fischmehlfabriken den ganzen einheimischen Bedarf am Fischmehl zu decken ; die dazu notwendigen Massnahmen.

**Truesdail R. W. & Shahiman L.** - Vitamins A and D in Tuna Meal. - Ind. & Eng. Chem., XXV, 661-662. Easton, Pa. (1933). **b - 1842**

**An.** - Production of Fish Oil and Meal, 1920 to 1933 (Other than from Pilchard.). 1 table, Rep. Comm. Fish. 1933, 79. Victoria, B. C. (1934). **b - 1843**

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### *Olea et axungiae - Continentia vitaminica.*

**Bailey B. E.** - Statistical Study of the Vitamin Potency of Pilchard Oil. - Ann. Rep. Biol. Board Canada, 1933, 108. Ottawa (1934). **b - 1844**

Account of a preliminary attempt to obtain data regarding the variations which occur in the vitamin potency of the pilchard oil due to seasonal variations and to the various factors of processing.

**Bailey B. E.** - The Relation Between the Biological and Colorimetric Assay for Vitamin A in Pilchard Oil. - Ann. Rep. Biol. Board Canada, 1933, 108. Ottawa (1934). **b - 1845**

Results of an examination of the comparative value and convenience of biological and colorimetric assays for vitamin of pilchard oil.

**Bailey B. E.** - Vitamin A Potency of Salmon Liver Oil. - Ann. Rep. Biol. Board Canada, 1933, 108-109. Ottawa (1934). **b - 1846**

Account of a detailed study of the vitamin A potency of salmon liver oil made with a view to disclose the variations between the liver oils from salmon of different species, and from fish caught in different localities.

**Bailey B. E.** - Salmon Body Oil Pigments. - Ann. Rep. Biol. Board Canada, 1933, 109. Ottawa (1934). **b - 1847**

Brief account of a study made on pigments present in salmon body oil with a view to throw some light on the relationship between the vitamin A potency of the liver oil, and the colour of the body oil by species, in sockeye, coho, pink, and chum.

**Bailey B. E.** - The Vitamin A Potency of Flounder Liver Oil. - Ann. Rep. Biol. Board Canada, 1933, 109. Ottawa (1934). **b - 1848**

Account of a brief investigation on the vitamin A potency of flounder liver oil determined by means of colorimetric test.

**Bailey B. E.** - Comparison of Vitamin Standards. - Ann. Rep. Biol. Board Canada, 1933, 109-110. Ottawa (1934). **b - 1849**

Brief account of the use of international vitamin standards in vitamin assays conducted at the Fisheries Experimental Stations, Prince Rupert, B. C.

**Beatty S. A.** - Fish Liver Oils. - Ann. Rep. Biol. Board Canada, 1933, 50. Ottawa (1934). **b - 1850**

Account of the results of an analysis for vitamin A of liver oils from three flat Fishes, *Pseudopleuronectes americanus*, *Limanda ferruginea*, and *Hippoglossoides platessoides*.

**Bills Charles E., Massengale O. N. & Imboden Miriam** - Demonstration of the Existence of Two Forms of Vitamin D in Fish Liver Oils. - Science, LXXX, 2086, 596. New York (1934). **b - 1851**

From the experiments undertaken by the AA. one must conclude that the vitamin D of bluefin tuna liver oil and the vitamin D of cod liver oil are different substances.

**Brocklesby H. N.** - The Susceptibility of Some Medicinal Oils to Oxidative Rancidity. - Ann. Rep. Biol. Board Canada, 1933, 113-114. Ottawa (1934). **b - 1852**

Account of a research made with a view (1) to compare several of the better known methods now used for the evaluation of the oxidative rancidity of oils, and (2) to compare the susceptibilities of some of the medicinal oils now on the market with the susceptibility of the newly developed product « Marinol », a mixture of two potent oils from Pacific coast Fishes.

**Brocklesby H. N.** - The Chemistry of Some Unsaturated Fatty Acids and Esters Present in Marine Oils. - Ann. Rep. Biol. Board Canada, 1933, 114. Ottawa (1934). **b - 1853**

Results of a study of the polymerization of mono-, di-, tri-, tetra- and penta-ethylenic fatty acids and methyl esters of the fish oils by heat, ultraviolet light and other agencies.

**Brocklesby H. N. & Denstedt O. F.** - Polymerization and Oxidation of Pilchard Oil. - Ann. Rep. Biol. Board Canada, 1933, 114-115. Ottawa (1934). **b - 1854**

Account of an investigation whose object has been to improve the properties of fish oil films by various methods of heat treatment and thus make such oils of more value in the paint and varnish industry.

**Brocklesby H. N. & Denstedt O. F.** - The Properties of Pilchard Oil Films. - Ann. Rep. Biol. Board Canada, 1933, 115. Ottawa (1934). **b - 1855**

Result of an investigation on the properties of a large number of pilchard oil films prepared from oils processed in a variety of ways.

**Brocklesby H. N. & Denstedt O. F.** - Fish Oils. 4. The Bodying of Pilchard Oil. 5 figs., 3 tabl., Contr. Canad. Biol. & Fish., VIII, 26, 321-343. Toronto (1934). **b - 1856**

The present paper deals with the physical and chemical changes that occur in pilchard oil when the latter is bodied by heating and blowing. The data presented give the paint and varnish chemist some idea of the rate of bodying of this oil at various temperatures and also indicate some of the more important properties of the product.

**Charnley F.** - Hydrogenation of Pilchard Oil. - Ann. Rep. Biol. Board Canada, 1933, 115-116. Ottawa (1934). **b - 1857**

Account of a research on the hydrogenation of pilchard oil made with the primary object to establish the most suitable conditions of hydrogenating the oil to produce a fat of given properties.

**Charnley F.** - Composition of Oils and Fats. - Ann. Rep. Biol. Board Canada, 1933, 116-117. Ottawa (1934). **b - 1858**

Account of the method of estimating the composition of a fish oil from the fractionation data of the methyl esters derived from the fatty acids of the oil, which is the only reliable method so far developed for estimating the composition of the more complex vegetable and animal oils : Some details of the method of carrying out the calculations, of correcting the data obtained of the lower-boiling fractions, and the effect of errors in the data on the estimated composition of a fraction are given.

**Charnley F.** - Calculations in the Investigation of Oils and Fats with Special Reference to Fish Oils. Part I. 8 tabl., Contr. Canad. Biol. & Fish., VIII, 35, 507-529. Toronto (1934). **b - 1859**

Equations relating total iodine values and equivalents of mixtures of esters of the fatty acids to those of the individual esters are given. Together with a knowledge of the percentages of saturated esters these equations enable the composition of simple mixtures (refractionations of the lower-boiling fractions) to be deduced from the iodine values and equivalents.

**Cooper D. Le B.** - Determination of Iodine in Fish Oils. - Ann. Rep. Biol. Board Canada, 1933, 53. Ottawa (1934). **b - 1860**

Description of a simple apparatus for the enclosed combustion of fish oils and its application to determination of iodine in these oils.

**Haines R. T. M. & Drummond J. C.** - The Properties of Halibut-liver Oil. - Brit. Med. Journ., 559-561. London (1933). **b - 1861**

**Lovern J. A.** - Fish Liver Oils Rich in Vitamin A. - Nature, CXXXIV, 3385, 422. London (1934). **b - 1862**

The vitamin A content of the Sturgeon (*Acipenser* species) and tunny Fish (*Thunnus thynnus*).

**MacPherson N. L.** - Vitamin A in Liver Oils. 4 figs., 5 tabl., Rep. Newfoundland Fish. Res. Comm., Ann. Rep., II, 2, 31-39. Plymouth (1934). **b - 1863**

The vitamin A content of cod liver oil, and salmon liver oil as determined in the laboratory of the Newfoundland Fishery Research Commission.

**Maning J. Ruel** - Interchangeability of Uses of Oil and Fats. - Fish & Oyster Rep., XV, 11, 8-9. Tampa, Fla. (1934).

(—) (Copied from p. 5925 of Congressional Record, 73rd Congress, 2nd session, LXXVIII, 70, March 29, Washington, 1934). **b - 1864**

The chemical, economic, and general technical principles outlined in this statement apply only to saponifiable oils and fats and do not pertain to the mineral-oil industry.

**Poulsson E. & Ender F.** - On the Vitamin Content of Cod-liver Oil, as Influenced by the Nutritional State of the Cod. - Skand. Arch. Physiol., LXVI, 92-96. Leipzig (1933). **b - 1865**

**Sahashi Y.** - Nutritive Value of Sperm Whale Oil and Finback Whale Oil. - Scient. Pap. Inst. Phys. & Chem. Res., XX, 245-253. Tokyo (1933). **b - 1866**

**Schmidt-Nielsen Sigval & Signe** - On the High Content of Vitamin D in the Tunny Liver Oil. 3 figs., Kongel. Norske Vidensk. Selsk. Forh., VI, 58, 218-221. Trondheim (1934). **b - 1867**

Five samples during 1929-1933 applied as curative test on young rachitic rats. Investigations have also been made on the vitamin-D content of the fat from the muscles and from the abdominal cavity.

**Sumi M. & Kawakami K.** - On the Vitamin-D Value of Several Fish-liver Oils (In Jap., Engl. Rés.). - Bull. Inst. Phys. & Chem. Research, XII, 401-404 (?). (1933). **b - 1868**

**Tomiyama Tetuo** - The Chemical Composition of Tunny Liver Oil. - 1 fig., 9 tabl., Bull. Jap. Soc. Scient. Fish., II, 1, 1-7. Tokyo (1933). **b - 1869**

**Truesdail R. W. & Culbertson H. J.** - Sardine and Tuna Oils as Sources of Vitamin D. - Ind. & Eng. Chem., XXV, 563-564. Easton, Pa. (1934). **b - 1870**

## Fructus piscationis aestimatio alimentaris - Consummatio - Bacteriologia - Hygiene.

**Alley A.** - The Effects on the Gastric Secretion of Variously Cooked Sea-Foods. 1 tab., Ann. Rep. Biol. Board Canada, 1933, 12-13. Ottawa (1934). **b - 1871**

Results of observations on the variations in the gastric secretion produced by different preparations of fish muscle determined in a dog with an Armour pouch. It has been demonstrated that variously cooked sea-foods elicite very different responses from the gastric glands.

**Aquino (de) Radler** - O que contém o oceano. 12 fig., 4 lám., Rev. Marit. Brasil. março-abril, 1-19. (1934). **b - 1872**

Traduction de l'anglais du travail du Dr. Harden F. Taylor: What's in the Ocean, publié in Canad. Fisherm., XVIII, 10, 17-20. Voir résumé in: Bibliographia Oceanographica, Vol. IV, b - 1471.

**Bailey B. E.** - The Nutritive Value of Marine Products. VI. The Vitamin A Potency of Salmon Liver Oil. 4 tabl., Contr. Canad. Biol. & Fish., VIII, 21, 265-274. Toronto (1934). **b - 1873**

The vitamin A content of liver oils of five species of salmon in the genus *Oncorhynchus* has been determined. The richest samples contained 40 times, and the poorest twice as much vitamin A per gram as a sample of cod liver oil stated to contain 500 A. D. M. A. units per gram. Potencies of samples were in descending order: Skeena spring, Vancouver spring and sockeye, coho, pink and chum salmon.

**Beatty S. A.** - Food Value of Common Sea Fish of Atlantic Coast. - Ann. Rep. Biol. Board Canada, 1933, 51. Ottawa (1934). **b - 1874**

Report of the results of analysis of muscles of cod, haddock, cusk, hake, Canadian plaice, herring, halibut, mackerel, and salmon. Changes in the food constituents of these fish over a period of one year.

**Bedford R. H.** - The Bacterial Infection of Fish Muscle by Worms. - Ann. Rep. Biol. Board Canada, 1933, 112. Ottawa (1934). **b - 1875**

Account of research carried on in order to determine the rôle of worm in bacterial infection of fish, in the present case of grey and red cod. It is believed that this investigation represents the first instance on record of bacterial infection of fish by worms.

**Bedford R. H.** - The Fluctuations of the Bacterial Population in Frozen Halibut Muscle Juice. - Ann. Rep. Biol. Board Canada, 1933, 112. Ottawa (1934). **b - 1876**

Results of a preliminary experiment concerned with the fluctuations of the bacterial population in the frozen halibut muscle juice carried out in connection with an investigation concerning the extent of denaturation of proteins in halibut muscle juice by freezing.

**Bigger J. W.** - The Bacteriological Examination of Shellfish. - Journ. of Hygiene, XXXIV, 172-194. New York (1934). **b - 1877**

**Bini Giorgio** - Gli ammino acidi nella nutrizione. Determinazione dei gruppi azotati caratteristici del tessuto muscolare di *Dentex filosus*. - Boll. Pesca, Piscicolt. e Idrobiol., X, 2, 215-235. Roma (1934). **b - 1878**

Dati analitici ottenuti dal tessuto muscolare del *Dentex filosus* L., specie di dentice atlantico, ora discretamente introdotto nella nostra alimentazione, sia allo stato fresco che conservato sott'olio. Funzione delle sostanze proteiche e dei loro componenti nell'alimentazione e principali teorie sul ricambio azotato.

**Bongert J.** - Bekämpfung von Nachrichten über angebliche Fischvergiftungen. Ein Obergutachten über Fischvergiftung. - Dtsch. Fischwirtsch., I, 3, 41-42. 4, 58-63. Berlin (1934). **b - 1879**

Ein interessantes Obergutachten über Fischvergiftung, welches von ausserordentlicher Wichtigkeit für den Fischhandel ist.

**Carteni A. & Aloj G.** - Composizione chimica di animali marini del Golfo di Napoli. - Quad. Nutr., I, 1, 49-63. Napoli (1934). **b - 1880**

Dati concernenti vari pesci ossei d'uso alimentare più comune, pescati nel Golfo di Napoli. Di essi si determinano: la parte non edibile e quella edibile, e la composizione chimica della parte edibile; il valore calorico della parte edibile; quello della parte edibile contenuta in 1 Kg. di materiale alimentare grezzo quale si acquista al mercato; il contenuto proteico della parte edibile di 1 Kg. di materiale alimentare grezzo. In base al costo medio di vari tipi di pesce si calcola inoltre il quantitativo di calorie e di proteine (in grammi) acquistabili con 1 lira; infine il rapporto tra equivalenti basici e acidi fissi nelle ceneri.

**Carter Neal M.** - Analysis of British Columbia Marine Products. 1 table, Ann. Rep. Biol. Board Canada, 1933, 71-72. Ottawa (1934). **b - 1881**

Results of a series of analyses on canned sockeye and pink salmon, and on canned pilchard; determination of the percentage of moisture, oil, protein and mineral ash in an aliquot portion of the contents of several cans. The summary of the results ready for publication is presented in a table.

**Caserio E.** - Ricerche sul valore alimentare del dentice conservato. - Ind. Ital. Conserve Alim., 5, 142. Parma (1934). **b - 1882**

Il dentice conservato pure avendo un contenuto sensibilmente inferiore di grasso in confronto al tonno (e quindi un minor valore nutritivo) è un ottimo prodotto alimentare, con un armonico equilibrio tra sostanze proteiche e grassi. Si distingue dal tonno per una percentuale di sostanze proteiche sensibilmente maggiore, per una minore percentuale di ceneri e di basi puriniche.

**Gibbons Norman E.** - A Bacteriological Study of « Ice Fillets ». 4 tabl., Contr. Canad. Biol. & Fish., VIII, 24, 301-310. Toronto (1934). **b - 1883**

Twenty-nine « ice-fillets » (mostly haddock) were examined bacteriologically after varying periods of storage at temperatures from — 5° to — 18° C.

Variability in the number of *Bacteria* in relation to the temperature was studied.

Sixty-eight species and varieties of *Bacteria* were isolated and grouped according to the species they most closely resembled.

**Gimenenz José Cerezo** - La valeur alimentaire du poisson. 6 tabl., Rapp. Pr.-Verb. Comm. Int. Expl. Scient. Méditerranée, VIII, 89-116. Paris (1934). **b - 1884**

Résumé de ce qui jusqu'à présent a été écrit sur la valeur alimentaire du poisson. Facteurs qui déterminent la valeur nourissante d'un aliment. Composition immédiate et valeur énergétique du poisson. Nature des aliments primaires du poisson. Digestibilité. Eléments minéraux. Vitamines. Considérations économiques. Conditions hygiéniques du poisson. Bibliographie consultée (pp. 113-116).

**Hess Ernest** - Discoloration of Halibut. - Ann. Rep. Biol. Board Canada, 1932, 58. Ottawa (1933). **b - 1885**

Discoloration of the white skin of halibut observed in halibut caught and landed both on the Canadian Pacific and Atlantic coasts. Results of bacteriological examinations of two Atlantic discolored Halibuts showing that, as it has been discovered by previous investigators, *P. fluorescens*, as well as a number of chromogenic types producing yellow pigments are responsible for the discoloration.

**Hess Ernest** - Effect of Low Temperatures on Marine *Bacteria*. - Ann. Rep. Biol. Board Canada, 1933, 56. Ottawa (1934). **b - 1886**

Brief account of the results of studies on fundamental effects of cold on *Pseudomonas fluorescens*, *Flavobacterium deciduosum*, and *Bacillus vulgatus*. These studies have brought forward explanations of problems encountered in the preservations of fish by chilling and freezing.

**Hess Ernest** - Cultural Characteristics of Marine *Bacteria* in Relation to Low Temperatures and Freezing. 4 tabl., Contr. Canad. Biol. & Fish., VIII, 32, 459-474. Toronto (1934). **b - 1887**

For the study of various physiological activities of marine *Bacteria*, especially at low temperatures, three organisms were chosen, namely; *Pseudomonas fluorescens*, *Flavobacterium deciduosum*, and *Achromobacter* (n. sp.), all having been isolated from cod fish slime.

**Hess Ernest** - Effects of Low Temperatures on the Growth of Marine *Bacteria*. 4 tabl., Contr. Canad. Biol. & Fish., VIII, 34, 489-505. Toronto (1934). **b - 1888**

The experiments carried out show that the marine *Bacteria* studied, namely *P. fluorescens*, *F. deciduosum* and *B. vulgatus* must be considered to be truly psychrophilic.

**Hess Ernest** - The Effects of Freezing on Marine *Bacteria*. I. Quantitative Studies. 12 tabl., Journ. Biol. Board Canada, I, 2, 95-108. Toronto (1934). **b - 1889**

For the experiments reported in this paper strains of *Pseudomonas fluorescens*, *Flav. deciduosum* and *Achromobacter*, all isolated from codfish slime, were used.

**Hess Ernest** - Effect of Temperature on the Cell Length and Shape of *Bacillus vulgatus*. 6 figs., 1 table, Journ. Biol. Board Canada, I, 2, 109-119. Toronto (1934). **b - 1890**

The effect of temperature on the growth, as determined by an increase in the length of the cells of *B. vulgatus* isolated from halibut intestine, was studied.

**Leonardi A.** - Igiene ed ispezione dei prodotti della pesca (Pesci, Molluschi e Crostacei). xii + 176 pp., Scuola Tipogr. « Oderisi ». Gubbio (1934). **b - 1891**

Valore alimentare della carne di pesce. Riconoscimento dei prodotti della pesca posti sul mercato; sorveglianza sanitaria. Intossicazioni alimentari e intossicazioni da carni di pesce. Tossicità dei pesci velenosi, dei pesci pescati nel periodo della fregola, dei pesci malati, pescati in acque luride e pantanose o con sostanze nocive. Tossicità dei pesci che sono terreni di coltura a vari germi o in putrefazione. Caratteri della putrefazione nei Molluschi e nei Crostacei, malattie infettive e parassitarie a cui vanno soggetti, Molluschi tossici ed infettivi.

**MacPherson N. L. & Wilson A. M.** - Nutritive Value of the Atlantic Salmon (*Salmo salar*). 5 tabl., Rep. Comm. Newfoundland Fish. Res., Ann. Rep., II, 2, 28-31. Plymouth (1934). **b - 1892**

Figures are given which indicate the composition of the red and white flesh of *S. salar*, the number of calories per pound of canned product and the percentage of water, solids, fat, protein, phosphorus of salmon.

**Parks T. B. & Rose E. R.** - The Copper, Iron and Manganese Content of Fish. - Journ. Nutrition, VI, 95-98. (?) (1933). **b - 1893**

**Pergola M.** - Il controllo della commestibilità del tonno e delle sardine all'olio. - Ind. Ital. Cons. Alim., 4, 105-107. Parma (1934).

(—) Le contrôle de la comestibilité du thon et des Sardines à l'huile. Boll. Sez. Ital. Soc. Int. Microbiol., V, 11, 283-287. Milano (1933). **b - 1894**

Dopo aver esposto le considerazioni che fanno prevedere che la sorveglianza sulle derrate alimentari in genere e su quelle la cui consumazione è più estesa in ispecie andrà aumentando, l'A. espone sotto forma di schema — donde le ricerche chimiche sono escluse — il metodo per l'esame del tonno e delle sardine sott'olio che debbono senza dubbio essere comprese fra quelle sostanze alimentari, il cui consumo è dei più estesi.

**Quagliariello G.** - Valore alimentare dei Pesci. - Quad. Nutr., I, 2, 151-162. Napoli (1934).

(—) La valeur alimentaire du poisson. Rapp. Pr.-Verb. Comm. Int. Expl. Scient. Méditerranée, VIII, 117-126. Paris (1934). **b - 1895**

L'esame del valore nutritivo della carne di pesce in confronto con le altre carni dimostra che la distribuzione dei principi alimentari nella carne dei pesci è la stessa che nella carne degli altri animali, che le sue proteine hanno un valore biologico uguale a quello delle altre carni e che per il suo contenuto in vitamine, in calcio e in iodio la carne di pesce è superiore a quella degli animali a sangue caldo. Importanza igienica ed economica della propaganda per un maggior consumo di pesce in Italia.

**Riddel W. A.** - Proximate Analyses and Food Values of Canned British Columbia Coho Salmon (Variety Blueback). - Ann. Rep. Biol. Board Canada, 1933, 98. Ottawa (1934). **b - 1896**

Brief account of an investigation carried out with a view to determine the change in food value of the coho salmon, variety blueback, throughout the canning season and to determine the distribution of food value among the physical components of the can contents.

**Riddel W. A.** - The Mineral Constituents of British Columbia Food Fishes. 1 table, Ann. Rep. Biol. Board Canada, 1933, 98-99. Ottawa (1934). **b - 1897**

Brief account of an investigation on the methods of analyses for determining the mineral constituents found in fish ash. Satisfactory methods of analysis have been collected for the determination of calcium, magnesium, sodium, potassium, phosphorus, chloride and sulphur, and analysis made on sockeye, pink, blueback and pilchard.

**Saby (el) M. K.** - Dietetic Value of Certain Egyptian Food Fishes. 13 tabl., Rapp. Pr.-Verb. Comm. Int. Expl. Scient. Méditerranée, VIII, 127-143. Paris (1934). **b - 1898**

Investigation of the dietetic value of the more common Egyptian food-Fishes and of the gross chemical changes, which occur in different tissues of the few most important species, i. e.: *Anguilla anguilla, Morone labrax, Mugil cephalus, Sardinella eba,* and some others.

**Ministry of Agriculture and Fisheries** - The Value of Herring as Food. - Fish Notice, 4, 1-4. London (?). **b - 1899**

Protein, fat and vitamin content of the herring. 12 recipes for cooking Herrings.

**An.** - The Food Value of Invertebrates. - Science, Suppl., LXXIX, 2039, 7. New York (1934). **b - 1900**

Food and vitamins from starfish, red Sponges and Oysters.

## Conservatio in thecis - Technica refrigerationis.

### *Salitura.*

**Abajeff J. & Perschin J.** - Ueber objektive Methoden der Qualitätbestimmung von gesalzenem Hering (I. Mitteilung) (Russ. Text, Dtsch. Rés.). - Rep. Central Scient. Inst. Fish. Industr., II, 3-24. Moscow & Leningrad (1933). **b - 1901**

**Abajeff J. & Perschin J.** - Ueber objektive Methoden zur Bestimmung der Haltbarkeit und des Verderbens von gesalzenem Hering (II. Mitteilung) (Russ. Text, Dtsch. Rés.). - Rep. Scient. Inst. Fish. Industr., II, 25-43. Moscow & Leningrad (1933). **b - 1902**

**Beatty S. A.** - Fish Salting. - Ann. Rep. Biol. Board Canada, 1933, 50-51. Ottawa (1934). **b - 1903**

Account of the study conducted at the Fisheries Experimental Station (Atlantic) on the yellowing of heavy salt cod fish during exposure to sunlight and of the use of a salt of loose crystals and low density in fish salting.

**Boury Maurice** - Étude sur le salage du poisson. 3 fig., 2 tabl., Rev. Trav. Off. Pêches Marit., VII, 2, 195-222. Paris (1934). **b - 1904**

Dans le présent ouvrage l'A. poursuit l'étude du salage du poisson en traitant les questions suivantes : le rouge de la morue et le salage du hareng.

**Carter Neal M.** - The Salting of « Round » Herring. - Ann. Rep. Biol. Board Canada, 1933, 72-73. Ottawa (1934). **b - 1905**

Results of the continuation of the study of the effect of time and brine concentration on the salting of « round herring », amplified by determination of the actual percentage of moisture and salt present in the fish at different stages of the process.

**Cooper D. Le B. & Squires R. H.** - Recovery of Salt from Contaminated Brine. - Ann. Rep. Biol. Board Canada, 1933, 53-54. Ottawa (1934). **b - 1906**

Account of an attempt to recover the salt contained in brines used in salting fish for various purposes, which soon become highly contaminated and unfit for use, by means of a semi-permeable membrane (sausage casing).

**Gibbons N. E.** - Red Discoloration of Salted Fish. - Ann. Rep. Biol. Board Canada, 1933, 54. Ottawa (1934). **b - 1907**

Seriousness of the problem of the reddening of salted fish; some hints as to the disinfectation of fish sheds, butts, etc. Results of analysis of a number of samples of salt and of red fish.

**Lots Wilhelm** - Vor einem Güte-Stempel für alle deutschen Salzheringe. 1 Tab., Dtsch. Fischwirtsch., I, 31, 533. Berlin (1934). **b - 1908**

Einige Betrachtungen in Bezug auf die Bestimmungen über das Kennzeichnen der Fischwaren durch einen äusserlichen Gütestempel.

**Perschin J. & Tschernonog G.** - Ueber objektive Methoden zur Bestimmung der Haltbarkeit und Qualität von gesalzenem Hering (Russ. Text., Dtsch. Rés.). - Rep. Central Scient. Inst. Fish. Industr., II, 44-46. Moscow & Leningrad (1933). **b - 1909**

**Schwinge** - Ein grosser Erfolg und Fortschritt in der Salzheringwirtschaft. - Dtsch. Fisch.-Rundschau, 22, 474-475. Bremerhaven (1933). **b - 1910**

Einige Bemerkungen über die Einführung des Schleppnetzes in die deutsche Heringsfischerei; Möglichkeit in den nächsten Jahren den deutschen Heringskonsum ganz von deutschen Fischdampfern zu decken.

**An.** - Die Regelung des Salzherings-Stempels im einzelnen. - Dtsch. Fischwirtsch., I, 31, 534-535. Berlin (1934). **b - 1911**

Kommentar der Vorschriften, nach welchen ab 1. Januar 1935 alle Salzheringe deutscher Herkunft, die ohne weitere Bearbeitung zum unmittelbaren menschlichen Genuss bestimmt sind, der Stempelpflicht unterliegen; Einzelheiten der Verpackung, der Prüfung und der Ausführung der Stempelung.

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### *Piscis infumatus et siccus.*

**Cooper D. LeB.** - Pre-Treatment of Fish for Smoking. - Ann. Rep. Biol. Board Canada, 1933, 52. Ottawa (1934). **b - 1912**

Results of preliminary experiments undertaken in order to determine the effect on fish of artificial drying before smoking.

**Cooper D. LeB.** - Smoking of Fish. - Ann. Rep. Biol. Board Canada, 1933, 52-53. Ottawa (1934). **b - 1913**

Possibility to vary the nature of the smoked article by the use of various types of intermediate equipment between the external producer and the smoke-house. Advisability of smoke-house control.

**Griffiths Fr. P. & Lemon J. M.** - Studies on the Smoking of Haddock. 1 fig., 5 tabl., U. S.

Dpt. Comm., Bur. Fish., Invest. Rep., 20, 1-12. Washington, D. C. (1934). **b - 1914**
Introduction. Review of literature. Outline of problem. Experimental preparation of finnan haddie. Chemical and bacteriological control. Purpose of salt in the preparation of finnan haddie. Effect of formaldehyde in the preservation action of smoke. Bacterial versus enzymatic change. Keeping properties of finnan haddie. Conclusions. Literature cited.

**Kunz Karl** - Noch unbefriedigende Lösung des Räucheraalmarktes. - Dtsch. Fischwirtsch., I, 4, 63-65. Berlin (1934). **b - 1915**
Einige Vorschläge und Bedenken zur Regelung des Räucheraalmarktes.

**Kunz Karl** - Für einen geordneten Räucherfisch-Markt. - Dtsch. Fischwirtsch., I, 15, 238-239. Berlin (1934). **b - 1916**
Einige Vorschläge, welche die Richtlinien der Neuordnung des Räucherfisch-Marktes enthalten.

**MacPherson N. L.** - The Dried Codfish Industry. 2 figs., 9 tabl., Rep. Newfoundland Fish. Res. Comm., Ann. Rep., II, 2, 12-27. Plymouth (1934). **b - 1917**
Salt analysis followed by remarks with regard to the quality of salt to be used in the codfish industry. Drying condition in 1933. Figures and a chart showing the effect on humidity of heating outside. Control of the conditions inside a drier. Effect of degree of salting on yield.

**Mann** - Ueber die Tötung der Aale vor der Räucherei. - Fischmarkt, II, 9, 241-243. Cuxhaven (1934). **b - 1918**
Ergebnisse der Versuche über die Aaltötung, mittels (1) Essig, (2) Auf-den-Bodenwerfen, (3) Salz und (4) durch Anwendung von Elektrizität. S. auch : H. J. Bandt & Dr. Willy Nolte, Fisch.-Ztg., XXXVII, 31, 505, 1934.

**Martin Claro** - Methods of smoking Fish around Manila Bay. 2 pl., 3 figs., Philipp. Journ. Sc., LV, 1, 79. Manila (1934). **b - 1919**
The smoking of fish is a very important industry in Manila, the center of which is at Tondo near Bangkusay. The smoking sheds are all owned by Chinese, only outside Manila smoking of fish is done by Filipinos, most women. The principal fish used for making « tinapa » (smoked fish) are : tamban (*Sardinella longiceps*), lapád (*S. perforata*), tonsoy or laolao (*S. fimbriata*) and kabasi (*Anodontostoma chacunda*).

**McFarlane A. S.** - Smoking Experiments. - Ann. Rep. Biol. Board Canada, 1933, 58-59. Ottawa (1934). **b - 1920**
Work on smoking continued at the Atlantic Fisheries Experimental Station to attempt to overcome difficulties experimented in 1932 and chiefly concerned with banding and smoking of herring. The smoke produced was drawn into the house by a fan, which represents the simplest smoke producer of any devised.

**McFarlane A. S.** - Psychrometric Data in Relation to Drying of Fish. - Ann. Rep. Biol. Board Canada, 1933, 59. Ottawa (1934). **b - 1921**
Experiences on hand of psychrometric readings taken at the Fisheries Experimental Station during the summer of 1933, in order to determine how frequently during the warmer weather atmospheric air is too humid to accomplish drying of fish.

**Munson James E.** - Country's Finest Smoked Fish Plant is Opened. 4 ills., Fish. Gaz., LI, 10, 4-5 & 12. New York (1934). **b - 1922**
Description of the equipment and some information as to the yield of a new smoked fish plant built by the United States Smoked Fish Corporation in Brooklyn, N. Y.

**Weigt Wilhelm** - Der Markt braucht erstklassige, frische und widerstandsfähige Räucherfische. - Dtsch. Fischwirtsch., I, 22, 350-351. Berlin (1934). **b - 1923**
Kritische Betrachtungen über die Lieferungen, welche von der Räucherwaren-Industrie auf den Berliner Markt gebracht werden.

**Williamson E. S.** - From « Telephone Booths » to Factory Perfection. 1 photo, 1 fig., Fish. Gaz., LI, 3, 14. New York (1934). **b - 1924**
Informal discussion comparing old with new, speaking of modernization in the smoked fish business.

**A. Zh.** - Le séchage de la morue au Mourman (En russe). - Za Rybn. Ind. Severa, 4, 29-31. Leningrad (1933). **b - 1925**

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## *Refrigeratio fructuum piscatus - Technica refrigerationis.*

**Adams Arthur** - « Frozen Salt ». 4 figs., Fish. Gaz., LI, 9, 10 & 29. New York (1934). **b - 1926**
Description of a new application of the FlakIce method which provides a refrigerant of low, uniform temperature, represented by a frozen eutectic salt, or « Salt Ice », made by mixing water with sodium chloride, or rock salt, in the proportion of 23.3 per cent salt and 76.7 per cent water.

**Beaugé L.** - Points de vue practiques du problème frigorifique. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 449-451. Paris (1933). **b - 1927**

**Bedford Robert H.** - The Red Discolouration or « Rusting » of Frozen Fish in Cold Storage. - Canad. Fisherm., XXI, 1, 9-10. Gardenvale, Que. (1934).

(—) Ann. Rep. Biol. Board Canada, 1933, 112-113. Ottawa (1934). **b - 1928**
This paper is a brief record of the beginning of a study as to the « why » of frozen fish in cold storage becoming red at those parts where they have been cut. In the industry this kind of red discolouration is termed « rusting ». The evidence so far gathered indicates that *Bacteria* may be one of the primary causes of red discolouration or « rusting ».

**Cannicci G.** - Applicazione del ghiaccio secco alla conservazione e ai trasporti del pesce. - Riv. Freddo, 8, 310-313. Roma (1933). **b - 1929**
L'A. riferisce quanto è stato sperimentato sull'azione dell'anidride carbonica sulle varie carni, e particolarmente sul pesce ; afferma la necessità di applicazione del ghiaccio secco per la refrigerazione di vagoni e autocarri adibiti al trasporto del pesce.

**Ellison W. A. Jr.** - The Prevention of Spoilage at Sea. Part II : The Hold. 1 fig., Fish. Gaz., LI, 4, 17-19. New York (1934). **b - 1930**
Second of the two articles of the author (s. Fish. Gaz., LI, 3, 8-10 & 20) dealing with the spoilage which occurs in fish stored in the hold of the boat : condition of hold a factor of spoilage, remedies for hold spoilage, the shallow pen method, preventing spoilage at sides, bilge and wash water.

**Finn D. B.** - The Denaturation of Fish Proteins During Freezing. - Ann. Rep. Biol. Board Canada, 1933, 117-118. Ottawa (1934). **b - 1931**
Account of experiments made to determine the nature of the protein change which distinguishes a frozen fish after thawing from one which has not been frozen.

**Finn D. B.** - The Denaturation of Fish Muscle Proteins by Freezing. 4 figs., Contr. Canad. Biol. & Fish., VIII, 25, 311-320. Toronto (1934). **b - 1932**

The investigation reported here deals with the extent and rate of denaturation at different temperatures in the frozen state, the influence of hydrogen-ion concentration on denaturation, and the ice-water phases in the frozen state.

**Friedman M. H.** - Frozen Oysters Survive if Handled Carefully. - Fish. Gaz., LI, 3, 21. New York (1934). **b - 1933**

Taken from the January issue of « Progress Report of Atlantic Biological Station, St. Andrews, N. B., and Fisheries Experimental Station, Halifax, N. S.». Investigation showing that the Oyster, *Ostrea virginica*, is quite resistant to freezing and that by means of a carefully handling it is quite possible to maintain them in life for a relatively long time.

**Golenzovkij A.** - Système de réfrigération du poisson sur les chalutiers (En russe). - Za Rybn. Ind. Severa, 4, 26-28. Leningrad (1933). **b - 1934**

**Gunton George Edwin** - Advantages of Carbo-Ice Refrigeration. - Canad. Fisherm., XXI, 9, 11. Gardenvale, Que. (1934). **b - 1935**

Information on a Canadian plant manufacturing solidified carbon dioxyde making this product available to fishing industry.

**Monvoisin A.** - La conservation du poisson par le froid. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 274-276 & 312-314. Paris (1933). **b - 1936**

**Young O. C.** - Refrigerator Car Studies. - Ann. Rep. Biol. Board Canada, 1933, 119-120. Ottawa (1934). **b - 1937**

Results of a study of small model refrigerator car having about one-third the standard dimensions, carried out in order to improve the existing type of refrigerator car employed in the transport of frozen fish.

**Young O. C.** - The Relation between Coil Area, Temperature of Cooling Medium and Dehydratation in a Cold Storage Room. 5 figs., 4 tabl., Contr. Canad. Biol. & Fish., n. ser., VIII, 33, 475-487. Toronto (1934). **b - 1938**

**Zarotschenzeff M. T.** - Fish Freezing Advances in Newfoundland. 3 figs., Fish. Gaz., LI, 8, 11-12. New York (1934). **b - 1939**

Some data on the development of Newfoundland's fishing industry and of the evolution of its freezing problems; brief description of the direct contact freezing system, known under the name of the Ottesen system, and of the indirect contact system, known under the name of Petersen system; description of a new improved freezing system for berries installed at the cold storage plant of Monroe & Co. in St. John, and of the bait freezer at Holyrood. Comparison between the air and the brine frozen fish.

**Zarotschenzeff W. M.** - North Carolina Wholesaler Installs Quick-Freezer. 4 figs., Fish. Gaz., LI, 12, 7-8. New York (1934). **b - 1940**

Description of a new quick-freezer installed at the plant of the Charlotte Fish & Oyster Co., Charlotte, N. C.; the principles and action of atomized brine used in the « Z » refrigeration process; freezing operations; plant layout; dual purpose freezing.

**An.** - Cold Storage Holdings of Cured Fish, 1933. - Fish. Gaz., LI, 7, 77. New York (1934). **b - 1941**

Statistic records by species and months. (Cured herring, mild-cured salmon).

**An.** - Holdings of Frozen Fishery Products, 1933. - 1 table, Fish. Gaz., LI, 7, 77. New York (1934). **b - 1942**

Statistic record by geographical sections and months of the holdings of frozen fishery products 1933 (in pounds).

**An.** - Fishery Products Frozen in Various Years, 1920 to 1933. 1 table, Fish. Gaz., LI, 7, 77. New York (1934). **b - 1943**

Statistic record expressed in thousands of pounds.

**An.** - New Refrigerant. - Fish & Oyster Rep., XVI, 2, 7. Tampa, Fla. (1934). **b - 1944**

Some information on « frozen salt », recently introduced in the fishing industry and which can be used for various purposes.

**An.** - Le procédé Bellefon-Folliot de réfrigération du poisson. - Pêche Marit., Pêche Fluviale et Piscicult., XVII, 207-209. Paris (1934). **b - 1945**

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### *Industria conservationis fructuum piscatus - Conditura in thecis - Machinae - Officinae fructibus piscatoriis conficiendis et conservandis.*

**Alfonsi Bianca** - La lavorazione del pesce e i residuati. - Ind. Ital. Cons. Alim., 2, 43-48. Parma (1934). **b - 1946**

Rilevata la necessità di assicurare al prodotto della pesca catturata, una buona conservazione per poterlo agevolmente distribuire in paesi lontani dal centro di pesca ed evitare deterioramenti per opera di organismi unicellulari che attaccano la sostanza organica, si indicano i vari sistemi di conservazione basati per lo più su elementi capaci di arrestare lo sviluppo dei microrganismi (temperatura, secchezza di ambiente, antisettici ecc.). I sistemi maggiormente in uso sono i seguenti: refrigerazione e congelamento, sterilizzazione a mezzo del calore (processo Appert), essiccamento, salagione, affumicamento marinatura. Il materiale grezzo non direttamente utilizzato nell'alimentazione umana, viene sottoposto ad una serie di manipolazioni, e trasformato in farina ed olio di pesce.

**Bedford R. H.** - Preservation of Fish. - Ann. Rep. Biol. Board Canada, 1933, 110-111. Ottawa (1934). **b - 1947**

(1) Results of an investigation on methods for the desinfection of fishing boats and fish canneries, conducted at the Fisheries Experimental Station, Prince Rupert, B. C., and (2) on the pre-cooling of fresh halibut before stowage.

**Behre A.** - Die Konservierungsmittelfrage. - Dtsch. Fischwirtsch., I, 29, 497-499. Berlin (1934). **b - 1948**

Vf., Sachberater des Reichsgesundheitsamtes, beantwortet in vorliegendem Aufsatze die Frage, ob und welche Konservierungsmittel in der Fischindustrie zu gebrauchen sind, und ob die damit hergestellten Fertigwaren durch solchen Zusatz im günstigen oder auch ungünstigen Sinne beeinflusst werden.

**Cameron E. J. & Williams C. C.** - How *Bacteria* Affect the Shrimp Canner. 1 ill., Fish. Gaz., LI, 10, 16-18. New York (1934). **b - 1949**

Illustration of the three divisions, in which contamination of shrimp during packing may be roughly divided. Three types of spore-forming *Bacteria* were repeatedly isolated from wet pack shrimp. The characteristics of these organisms were studied and methods developed to test for the presence of the organisms in canning plants.

**Cerruti Carlo F.** - Una non rara alterazione del tonno in scatola: il tonno «tarlato» o «spugnoso». - Atti VIII Congr. Naz. Igiene (Roma, 19-23 ott. 1932-X), 405-406. Napoli (1933). **b - 1950**

La particolare alterazione del tonno in iscatola sarebbe da ricondurre secondo l'A., a fatti iniziali di decomposizione della carne stessa avvenuti nell'intervallo di tempo tra il momento della cattura e quello dell'inscatolamento del pesce. Questa alterazione non sembra dannosa alla salute; diminuisce tuttavia il valore commerciale del prodotto, e in taluni paesi è motivo sufficiente per vietarne la vendita.

**Cultrera Rolando** - Su un'alterazione dei filetti di acciughe in conserva. 1 fig., Ind. It. Cons. Alim., 2, 31-32. Parma (1934). **b - 1951**

Si è determinata la natura di un'alterazione che subiscono i filetti di acciuga in conserva e si consiglia un metodo per eliminarla o ridurla notevolmente.

**Ellison W. A. Jr.** - The Prevention of Spoilage at Sea. 1 photo, 1 fig., Fish. Gaz., LI, 3, 8-10 & 20. New York (1934). **b - 1952**

The author gives some suggestions in accordance with his opinion that 90 per cent of the fish landed in a soured and spoiled condition can be landed as good as the rest of the catch. His foundings are applicable to all boats whose catch is held at sea for several days. His recommendations are chiefly concerned with foredeck improvement.

**Franchini Antonio** - Sulla conservabilità del pesce azzurro pescato con le sorgenti luminose. - Ann. di Merceol. Sicil., I, 1932-33, 277-281. Acireale (1934). **b - 1953**

Prima di porre il dilemma della maggiore o minore conservabilità del pesce azzurro catturato con le sorgenti luminose e delle varie ripercussioni di ordine economico-sociale che esso suscita, si accenna al principio fondamentale su cui si basano le applicazioni della pesca delle varie specie di sorgenti luminose. I pesci maggiormente catturati con tale sistema di pesca sono i Clupeidi di piccole dimensioni (Sardine, Acciughe, Scombri, Sauri, ecc.) chiamati pesci azzurri.

**Gire G.** - Sulfuration électrolytique des fers-blancs. 18 fig., 1 table, Rev. Trav. Off. Pêches Marit., VII, 2, 223-235. Paris (1934). **b - 1954**

L'A. traite en particulier de la sulfuration électrolytique comme épreuve de porosité des fers-blancs et étudie, en outre, la sulfuration électrolytique de différentes qualités de fers-blancs.

**Gibbons N. E.** - Preservatives for Fresh Fish. - Ann. Rep. Biol. Board Canada, 1933, 54-55. Ottawa (1934). **b - 1955**

Results of a study on the preservation of fresh fish, with special reference to the treatment of fish with solutions of salt and hydrochloric acid.

**Graefe Johs.** - Vollkonserven-Herstellung beruht auf dem Qualitätsgedanken. - Dtsch. Fischwirtsch., I, 15, 237-238. Berlin (1934). **b - 1956**

Betrachtungen über die Entwicklung der deutschen Vollkonservenindustrie mit besonderer Rücksicht der Qualitätsleistungen, Güte und Haltbarkeit. (S. auch Dtsch. Fischw., 9, 1934).

**Hess Ernest** - Canned Scallop. - Ann. Rep. Biol. Board Canada, 1933, 55. Ottawa (1934). **b - 1957**

Continuation of previous work of the Fisheries Experimental Station (Atlantic) on obtaining proper methods for canning scallop muscles, which would allow to avoid the shredding of the muscle due to heat.

**Hess Ernest** - Canned Tuna. - Ann. Rep. Biol. Board Canada, 1933, 55. Ottawa (1934). **b - 1958**

Brief account of the work conducted at the Fisheries Experimental Station (Atlantic) in order to find a method of canning tuna which allows to obtain a meat as light as the product of Californian and Japanese canneries.

**Hunter Albert C.** - Sanitation in the Fish Canning Plant. - 2 ills., 1 photo, Fish. Gaz., LI, 1, 7-8. New York (1934). **b - 1959**

Importance of the sanitation and its benefits in a fish or shellfish cannery: careful selection of raw material; suggestions concerning proper cleansing of boats delivering fish and shellfish to canneries, short discussion of the application of the Federal Food and Drugs Act to interstate traffic in fish and shellfish.

**Kallen J. H.** - Eliminating the Fry-bath from Sardine Canning. 5 figs., Fish. Gaz., LI, 6, 8-10. New York (1934). **b - 1960**

Description of the design and operation of the plant of F. E. Booth Co. which cooks fish in cans using radiant heat in ovens of new design, eliminating fry-bath.

**Merres** - Das Laboratorium der norwegischen Konservenindustrie zu Stavanger. - Dtsch. Fischwirtsch., I, 16, 254-256. Berlin (1934). **b - 1961**

Nach einem Vortrage von Dr. Gulbrand Lunde, Direktor des Forschungslaboratoriums für die norwegische Konservenindustrie zu Stavanger. Bau und Einrichtung des Instituts. Sein Arbeitsprogramm: Untersuchungen der Roh- und Zusatzstoffe sowie der Fertigerzeugnisse zu betriebskontrollischen Zwecken und Versuche, die auf eine Verbesserung der Herstellungsverfahren hinauslaufen.

**Needler A. W. H.** - The Storage of Oysters in the Shell. - Ann. Rep. Biol. Board Canada, 1933, 33-34. Ottawa (1934). **b - 1962**

Results of an inquiry regarding the best method of storing Oysters in the shell commenced in 1933 with the end in view of advising consumers how to keep Oysters for winter use.

**Needler A. W. H.** - The Storage of Oysters in the Shell. - Biol. Board Canada, Bull. XLIV, 2-4. Ottawa (1934). **b - 1963**

Some information concerned with the storage of Oysters in the shell; summary of the methods of preservation with special regard to the properties of a good oyster, the packing of stored Oysters and the conditions of a good storage i. e.: low temperature, the danger of freezing and drying, the impossibility of feeding Oysters when stored in barrels and the signs of deterioration of the same.

**Needler A. W. H.** - The Storage of Oysters in Shell. - Canad. Fisherm., XXI, 12, 12. Gardenvale, Que. (1934). **b - 1964**

Summary of methods used for and conditions of proper storage of Oysters in shell.

**Ragusin A. V.** - Gulf Oyster Canneries Improve Methods. 2 ills., Fish. Gaz., LI, 1, 9. New York (1934). **b - 1965**

Account of the improvements made in the oyster canneries mainly concerned with plant sanitation and handling methods.

**Riddell W. A.** - The Extraction of «Oil» by Various Solvents in the Proximate Analysis of Canned Fish. 1 table, Ann. Rep. Biol. Board Canada, 1933, 118. Ottawa (1934). **b - 1966**

Report on an attempt to substitute ether and petroleum used in standard practice for the extraction of the «oil» (fat, non-saponifiable and lipoid constituents) from canned fish by non-flammable solvents, from which the following ones have been tested: anhydrous ethyl ether, anhydrous acetone, chloroform, carbon tetrachloride, ethylene dichloride, petroleum ether.

**Roubine S.** - Sur la construction des fabriques de conserves dans l'Extrême-Nord (En russe). - Za Rybn. Ind. Severa, 5, 32-34. Leningrad (1933). **b - 1967**

**Schlie Kurt** - Ueber die Totenstarre bei Seefischen und ihren Zusammenhang mit der beginnenden Zersetzung. 1 Abb., 3 Tab., Fischmarkt, II, 11, 289-297. Cuxhaven (1934). **b - 1968**

Bericht über die von dem Vf. ausgeführte Arbeit über den Zusammenhang der Totenstarre bei Seefischen mit der beginnenden Zersetzung (Eine ausführliche Behandlung der Versuche findet sich in der Zeitschrift « Die Kälte-Industrie », H. 10, 134). Vf. behauptet, dass das längere Verharren eines Fisches in der Totenstarre gleichbedeutend mit der längeren Frischerhaltung seiner Qualität ist.

**Schmidt-Nielsen S., Gunneröd K. & Stene Jørgine** - Ueber « gelaugte » Fische. - Kongel. Norsk. Vidensk. Selsk. Forh., VI, 32, 123-126. Trondheim (1934). **b - 1969**

Von Alters her werden in den skandinavischen Ländern sogenannte « gelaugte Fische » (norw. « lutefisk ») meistens *Gadus morrhua* und *G. molva*, zubereitet, und bilden in gekochtem Zustande eine hoch geschätzte Speise. Der Zubereitungsprozess. Analysen der Handelsware. Die Verluste beim Laugen. Bedeutung der Hydroxylionenkonzentration.

**Scholstoff (von) Hans** - Grundsätzliches zur deutschen Fisch - Vollkonserven - Fabrikation. - Dtsch. Fischwirtsch., 9, 146. Berlin (1934). **b - 1970**

Ein Blick auf die bisherige Entwicklung der deutschen Fisch-Vollkonserven-Fabrikation. Allmähliche Erweiterung der Vollkonservenherstellung. Bestimmte Beschränkungen betreffend Produktionsausweitung, welche von der Fischindustrieverordnung vorgesehen worden ist.

**Tjoetta L. L.** - Waschen und Trocknen sterilisierter Dosen. - Dtsch. Fischwirtsch., I, 29, 500-502. Berlin (1934). **b - 1971**

**Tully J. P.** - Small-Scale Canning of Pacific Oysters. - Ann. Rep. Biol. Board Canada, 1933, 103. Ottawa (1934). **b - 1972**

Account of studies made to determine a method of canning that could be used by individual growers who wished to open the Oysters cold, and could only preserve a small number at a time.

**Wille Otto** - Ueber den Aufguss von Bratmarinaden. 1 Tab., Dtsch. Fisch.-Rundschau, 22, 477-478. Bremerhaven (1933). **b - 1973**

Ergebnisse von Untersuchungen über die Bombage der Bratmarinadendosen; Bedingungen, welche die Bombage verhindern.

**An.** - Crab Canning on the Queen Charlottes. - Canad. Fisherm., XXI, 1, 14-15. Gardenvale, Que. (1934). **b - 1974**

Description of the organization and work of a modern plant now packing Canadian crabmeat.

**An.** - New Tuna Can for Point Loma. 3 ills., Fish. Gaz., LI, 3, 15. New York (1934). **b - 1975**

Information on introduction of aluminium containers on the Pacific coast by the Point Loma Tuna Co., California; the advantages of the new type of can.

**An.** - Finland Using New Method For Preserving Fish. - Fish. Gaz., LI, 13, 15. New York (1934). **b - 1976**

Description of a new method for preserving fish, mushroom, meat, etc., based on the conservative properties of acids, in the first place hydrochloric acid. The article is followed by a comment of Mr. H. F. Taylor dealing with the possibility of recognition of the method described in the United States.

## Species edules et commerciales.

### *Pleuronectes platessa et aliae Pleuronectidae.*

**Bedford R. H.** - The Preservation of Fresh Halibut at Sea. Part I. Canad. Fisherm., XXI, 4, 9-10 & 23-26. Gardenvale, Que. (1934).

(—) Fish & Oyster Rep., XV, 12, 2-3 & 6-7. Tampa, Fla. **b - 1977**

Lecture given to the Vessel Owners Association and the Fishermen's Union of Prince Rupert. This first part considers the cause of bad fish, the spreading of infection, the process of preservation itself, the handling of fish after it is caught, cleanliness of hold and amount of ice to use.

**Bedford R. H.** - The Preservation of Fresh Halibut at Sea. Part II. - Canad. Fisherm., XXI, 5, 12-14. Gardenvale, Que. (1934). **b - 1978**

The three conditions that cause ice to melt aboard the vessel, excluding of course the ice melted by the heat from the fish. Method of stowage and icing. Inefficiency of present method. Best method but impracticable. Suggested method. Care in icing pays.

**Fischer E.** - Verpflanzung von Nordseeschollen nach der Ostsee. Hilfe für die Ostseefischerei. - Dtsch. Fischwirtsch., I, 2, 28-30. Berlin (1934). **b - 1979**

Ueberraschende Ergebnisse der im Jahre 1911 unternommenen Untersuchungsfahrt des Reichsforschungsdampfers « Poseidon » zur Verpflanzung von markierten Schollen aus der Nord - in die Ostsee. Anpassung und erstaunliche Wachstumszunahme der verpflanzten Fische. Versuche die Resultate dieses rein wissenschaftlichen Unternehmens für die Praxis nutzbar zu machen.

**Kaendler R.** - Schollenverpflanzung in Dänemark. 4 Abb., Fischmarkt, II, 6, 144-147. Cuxhaven (1934). **b - 1980**

Nähere Einzelheiten dieser Schollenverpflanzungsarbeiten auch an Hand von Abbildungen im Text, welche Vf. während seiner Reise aufgenommen hat. Es wurden in grossem Masstabe Jungschollen aus der Nordsee in die Beltsee verpflanzt, um deren Fischbestand auszufüllen.

**Laurinat Karl** - Die Wiederfänge von in der mittleren und westlichen Ostsee markierten Klieschen. 3 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 6, 237-239. Berlin (1934). **b - 1981**

Vervollständigung der in Bd. XXXXVIII (1932) Nr. 4 der « Mitt. Dtsch. Seefisch.-Ver. » erschienenen vorläufigen Mitteilung über die Aussetzungen von Klieschen, die im Dezember 1930 und März 1931 in der mittleren Ostsee und im Mai 1931 in der Kieler Bucht vorgenommen wurden. Auswertung und Registrierung der inzwischen noch eingegangenen Wiederfänge.

**Molander A. R.** - Om förekomsten av rödspottans yngre årgångar utmed svenska kusten. - Ny Svensk Fiskeritidskr., 23, 265-267. Göteborg (1933). **b - 1982**

**Payne Robert R.** - Romance of Halibut. - Canad. Fisherm., XXI, 6, 21. Gardenvale, Que. (1934). **b - 1983**

Summary of an interesting talk given by the A. in Vancouver pointing out the importance of the development of halibut fishery for the progress of British Columbia as a whole.

**Thompson William F. & Bell F. Heward** - Biological Statistics of the Pacific Halibut Fishery. (2) Effect of Changes in Intensity upon Total Yield and Yield per Unit of Gear. 18 figs., 15

tabl., Rep. Int. Fish. Comm., 8, 3-49. Seattle, Wash. (1934). **b - 1984**

This is the eighth report by the International Fisheries Commission upon scientific results obtained under the terms of the convention of 1924 and that of 1930 between the United States and Great Britain for the preservation of the halibut fishery of the Northern Pacific Ocean, including Bering Sea.

**Sch.** - Verpflanzungen von Schollen. - Fischmarkt, II, 5, 125-129. Cuxhaven (1934). **b - 1985**

Zusammenfassende Wiedergabe einer Uebersicht von H. Blegvad (Journ. Cons. Expl. Mer, VIII, 2, Kopenhagen 1933) über die bisher in Dänemark ausgeführten Versuche von Schollenverpflanzungen.

**An.** - Halibut Regulations Bring Market Improvements. - Canad. Fisherm., XXI, 9, 18-19. Gardenvale. Que. (1934). **b - 1986**

Account of the report of the International Fisheries Commission showing that as a result of its regulations during the third successive year the halibut banks off the British Columbia and Alaska coasts have shown a definite and marked improvement.

**An.** - The 1934 Halibut Catch. - Canad. Fisherm., XXI, 12, 22. Gardenvale, Que. (1934). **b - 1987**

Statistical statements showing the total of halibut landings, the catch of single fishing vessels, the activity of the American fishing fleet.

**An.** - North Pacific Halibut Fishery, 1932 and 1933. 1 table, Fish. Gaz., LI, 7, 77. New York (1934). **b - 1988**

Amount of halibut (in pounds) catch by American and Canadian vessels in Alaska, at Prince Rupert, Vancouver, Vancouver Island and Seattle.

**An.** - Protection of Plaices. - Nordisk Havfisk. Tidsskr., VII, 9, 9-10. København (1933). **b - 1989**

**An.** - Transplanting of Young Plaices. - Nordisk Havfisk. Tidsskr., VIII, 5, 29. København (1934). **b - 1990**

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## *Gadus morrhua et G. callarias.*

**Graham Michael** - Report on the North Sea Cod. 33 figs., Minist. Agricult. & Fish., Fish. Invest. Ser. II, XIII, 4, 1933, 1-160. London (1934). **b - 1991**

Introduction : The world's Cod fisheries. The cod in the North Sea. The English Fishery for cod in the North Sea. The growth of codling in the North Sea until they are 3 years old. Growth after the second year. Assessment of broods. Fluctuations in brood strength. The life-cycle of the cod in the North Sea. Relation of the catch to the stock of cod in the North Sea. Fluctuations in stock. The identity of the North Sea stock. Prediction. Recommendations for future work. List of literature.

**Iversen Thor** - Some Observations on Cod in Northern Waters. Preliminary Report. 8 figs., 5 tabl., Fiskerid. Skr. Ser. Havunders. (Rep. Norw. Fish. Mar. Invest., IV, 8), 3-35. Bergen (1934). **b - 1992**

Account of the fishing and investigations carried out from 1825 in the Barentz Sea, the Bear Island and Spitzbergen Area and the waters off Southeast Greenland and Jan Mayen with a list on the Fishes found in the Spitzbergen area. Tables and figures indicating size groups, catches of fish eggs and young cod, marking experiments, investigations of maturity during 1930, 31, 32 and 33.

See also : Fischmarkt, II, 5, 129-132. Cuxhaven (1934).

**McKay Colin** - Icy Water - Abundance of Cod. - Canad. Fisherm., XXI, 6, 9-10. Gardenvale, Que. (1934). **b - 1993**

Illustration of the French theory that there is a connection between the birth-rate of bergs, or the amount of ice brought down by the Labrador current, and the abundance and quality of the fish on the Banks of Newfoundland and Nova Scotia. Scientific sanction of this theory by means of investigations carried on over a series of years under the direction of M. Le Danois in France.

**McKenzie R. A.** - The Cod Changes Colour. - Canad. Fisherm., XXI, 1, 17-18. Gardenvale, Que. (1934). **b - 1994**

Description of experiments performed during the last two years on cod held in cement tanks with running salt water. The results show that colouration in the cod is subject to great variation depending upon conditions and that it is a very doubtful means of separating different races and schools of fish.

**Lundbeck** - Veränderungen in der Nutzung des Arktisch-Norwegischen Kabeljaubestandes durch die neue Trawlfischerei an der norwegischen Küste. 2 Diagr., Rapp. Pr.-Verb. Cons. Expl. Mer, 3ème partie, appendices, 1933-1934, LXXXIX, 3-4. Copenhague (1934). **b - 1995**

Die Verschiebung der Hochseefischerei vom Barentsmeer nach den norwegischen Bänken ist für den Fischbestand als ein Vorteil zu begrüssen, denn dadurch werden die im Barentsmeer heranwachsenden Jungfische geschont, welche erst später im laichreifen Stadium nach den oben erwähnten Bänken ziehen.

**Rollefsen Gunnar** - VIII. Biologiske og oceanografiske undersøkelser. Skreiens alder. 3 figs., 1 graph., Årsber. v. Norg. Fisk. 1933, Lofotfisket 1933, 2, 90-93. Bergen (1934). **b - 1996**

Deductions as to the age, times of spawning and races on the basis of otoliths. Comparison with the icelandic stock.

**Rollefsen Gunnar** - VIII. Biologiske og oceanografiske undersøkelser. Skreiens alderssammensetning 1934. 2 fig., Årsber. v. Norg. Fisk. 1934, Lofotfisket 1934, 2, 90-92. Bergen (1934). **b - 1997**

Age and sexual maturity determined on the basis of otoliths.

**Rollefsen Gunnar** - VIII. Biologiske og oceanografiske undersøkelser. Skreiens gytning og eggens befruktning. - Årsber. v. Norg. Fisk., 1934, Lofotfisket 1934, 2, 92-93. Bergen (1934). **b - 1998**

Report on the experiments of fecundation of cod eggs at different temperatures carried out at the Biological Station of Trondhjem in the spring of 1934.

**Schnakenbeck** - Neuere Beobachtungen über Kabeljauwanderungen. 1 Abb., Fischmarkt, II, 7, 181-185. Cuxhaven (1934). **b - 1999**

Zusammenfassende Wiedergabe der Ausführung, welche Dr. A. V. Taaning auf der Kopenhagener Tagung der Internationalen Meeresforschung über die Ergebnisse der Markierungen an Kabeljau in Bezug auf seine grossen Wanderungen gegeben hat. Die Ergebnisse der Kabeljau-Markierungen erweitern wesentlich unsere Kenntnisse von den Lebensverhältnissen des Kabeljaus und den Zusammenhängen zwischen den einzelnen Fischereigebieten und erweisen die grosse Bedeutung der Versuche für die praktische Fischerei.

**Sund Oscar** - VIII. Biologiske og oceanografiske undersøkelser. Torskebestanden. 6 fig., tab., Årsber. v. Norg Fisk. 1933, Lofotfisket 1933, 2, 81-90. Bergen (1934). **b - 2000**

Tableaux statistiques et graphiques sur la quantité de Poissons pris par chaque pêcheur et la quantité totale selon âge et poids. Comparaison avec les années précédentes.

**Sund Oscar** - VIII. Biologiske og oceanografiske undersøkelser. Torskebestanden i 1934. 7 fig.

Årsber. v. Norg Fisk. 1934, Lofotfisket 1934, 2, 82-90. Bergen (1934). **b - 2001**
Measurements of lengths in different catches and localities. Quantities captured in 1934, comparison with lengths of cod and captures during 1913-1932 and 1933. Fishery previsions for 1935.

**Sund Oscar** - Torsken og Fiskehavet 1933 (The Cod and the Sea in 1933) 1) Torskebestanden i 1933. (Engl. Rés.). 6 fig., 6 tab., Fiskerid. Skr. Ser. Havunders. (Rep. Norw. Fish. Mar. Invest., IV, 7), 3-12. Bergen (1934). **b - 2002**
Measurements during 1927-1933. Quantities of fish obtained during 1933 compared with those of 1930, 31, 32 and 33, and factors influencing upon it. The cod's lengths and weights and their variations graphically shown from 1913 to 1933.

**Temple W. B.** - French Codfish Bounties Eliminate Competitors. - Canad. Fisherm., XXI, 9, 9-10. Gardenvale, Que. (1934). **b - 2003**
Alarm of the Newfoundland salt codfish export trade at the competition which French-caught fish presents to Newfoundland product, due to the very generous bounties which the French government is paying to its fishermen, and the additional bounty paid by the government of the island of St. Pierre. Petition addressed by the Newfoundland Board of Trade on the subject.

**Tricoche George Nestler** - The Future of Codfish Industry in Newfoundland. - Canad. Fisherm., XXI, 5, 7-8. Gardenvale, Que. (1934). **b - 2004**
Serious crisis of the Newfoundland codfish industry; the decrease of consumption of the foreign markets; competition of Iceland and Danemark; remedies suggested in order to eliminate the causes of the crisis.

**Newfoundland Board of Trade** - Refutes Criticisms of N. F. Codfish Cure. - Canad. Fisherm., XXI, 6, 11-12. Gardenvale, Que. (1934). **b - 2005**
Exception to certain statements regarding Newfoundland's Fish Trade published in an article by George N. Tricoche, entitled « The Future of the Codfish Industry in Newfoundland », appeared in n° 5, 1934 of « Canad. Fisherm. ».

**An.** - Bericht über den Nordseekabeljau. - Fischmarkt, II, 6, 151-155. Cuxhaven (1934). **b - 2006**
Zusammenfassende Wiedergabe des Inhaltes der unter obigem Titel in « Fishery Investigations » (Ser. II, XII, n° 4) erschienenen Abhandlung verfasst von M. Graham.

**An.** - Icy Water Means Abundance of Cod. - Fish. News, 7 July, 8. Aberdeen (1934). **b - 2007**

**An.** - Cod Investigations. 2 figs., 1 table, Rep. Newfoundland Fish. Res. Comm., Ann. Rep., II, 2, 71-77. Plymouth (1934). **b - 2008**
The bank fishery. Relationship of time of day to catch of cod. Relationship of temperature and catch. Predominant age-groups in 1933. Tagging of cod.

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## *Gadus aeglefinus.*

**Vladykov V. D.** - Inshore Spring Fishery of Haddock in the Halifax Area. 1 table, Ann. Rep. Biol. Board Canada, 1933, 39-40. Ottawa (1934). **b - 2009**
Characteristics of the sea bottom east and west of the Sambro peninsula which is very suitable for haddock; dependence of the spring inshore haddock catch in the Halifax area on the water temperature near the bottom. Table showing the relation between water temperatures and haddock catches in spring at the entrance of Halifax Harbour during 1929 to 1933.

**La.** - Untersuchungen über die Eiproduktion beim Schellfisch. - Fischmarkt, II, 7, 185-187. Cuxhaven (1934). **b - 2010**
Zusammenfassende Wiedergabe der Ergebnisse von den Untersuchungen von Dr. D. S. Raitt (Fish. Board Scotl., Scient. Invest., 1932, I (1933), über die Eierzeugung beim Schellfisch, mit besonderer Berücksichtigung der Anspruchnahme seitens der Fischerei des Schellfischbestandes der Nordsee.

**An.** - Council Fears Haddock Depletion. - Canad. Fisherm., XXI, 10, 11. Gardenvale, Que. (1934). **b - 2011**
Brief account of the meeting held by the North American Council on Fisheries Investigations aboard the « Président Théodore Tissier » at Halifax. Text of a Report of a special subcommittee on the Atlantic haddock situation.

**An.** - Haddock Investigations. 1 table, Rep. Newfoundland Fish. Res. Comm., Ann. Rep., II, 2, 77-78. Plymouth (1934). **b - 2012**
Abundance of haddock at the Nova Scotian and Grand Bank; illustration of the trend towards increased catches of haddock, 1931-1933.

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## *Thynnus.*

**Ehrenbaum E.** - Thunfische in den nordeuropäischen Gewässern. 1 Tab., Fischmarkt, II, 5, 116-119. Cuxhaven (1934). **b - 2013**
Beobachtungen von französischer, deutscher und skandinavischer Seite über das Vorkommen von *Thunnus thynnus* L. in den nördlichen Gewässern. Verbreitungsgebiet und Heimat. Fangmethoden. Grösse. Statistische Angaben über den Fang. Wanderungen.

**Krebs L.** - La pêche du thon germon par les voiliers et la conservation du poisson. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 397-398. Paris (1933). **b - 2014**

**Priol E.** - La pêche du thon rouge à Boulogne-sur-Mer. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 139-140. Paris (1933). **b - 2015**

**Takayama I. & Andô S.** - A Study of the « Magro » (*Thunnus*) Fishing in 1930 (In Jap., Engl. Rés.). - Journ. Imp. Fish. Exp. Stat., 5, 1-21. Tokyo (1934). **b - 2016**

**Taylor Fred.** - Tunny Fishing for Beginners. 18 pl., 102 pp., Seeley Service and Co., Ltd. London (1934). **b - 2017**

**Rassegna Economica delle Colonie** - Pesca del tonno in Cirenaica nella campagna 1933. - Rass. Econ. delle Colon., 11/12, 1933, 1089-1092, Roma (1934). **b - 2018**

**An.** - La pesca del Atun en aguas españolas. - Industrias Pesqueras, 145. Vigo (1933). **b - 2019**

**An.** - La prochaine campagne du thon à Concarneau. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 225-227. Paris (1933). **b - 2020**

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## *Clupea harengus.*

**Clark Robert S.** - Herring Larvae. The Mixing of the Broods in Scottish Waters. 1 diagr., 2 chart, 6 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXV, Append., 11-18. Copenhague (1933). **b - 2021**

Frequencies of occurrence of the herring larvae in the collections made by the Scottish Research Vessels throughout the period 1904 to 1932. Total number of larvae caught each month. Relative abundance of the larvae in each month. Increment of the numerical value of the size groups in the shallow inshore areas. Evidence of the overlapping of the broods as seen from the size frequencies of the captures of transition stages. Definition of the origin points of the larvae in time and place by the captures of the newly-hatched larvae. Distribution of the spring and autumn hatching centres of the herring in the Scottish waters. Relative importance of these hatching centres. Monthly composition of catches obtained by nets of the larger transition stages. The mixing of the broods in the summer months.

**Erdmann** - Der Einfluss des Mondes auf die ost-englische Heringsfischerei. 2 Abb., Fischmarkt, II, 12, 315-317. Cuxhaven (1934). **b - 2022**

Nach einigen Bemerkungen und Beispielen über den Einfluss des Mondes und der Naturgewalten im allgemeinen auf das tierliche und pflanzliche Leben, gibt Vf. eine Zusammenfassung des Aufsatzes von R. E. Savage und W. C. Hodgson in dem « Journal du Conseil » IX. 2, 223-239, Copenhague 1934.

**Fischer E.** - Die Trawl-Herings-Fischerei und ihre Bedeutung für die deutsche Fischwirtschaft. 9 Tab., Dtsch. Fischwirtsch., I, 12, 189-193. Berlin (1934). **b - 2023**

Untersuchungen über die Bedrohung des Nutzfischbestandes mit besonderer Berücksichtigung des Heringsbestandes durch die Schleppnetzfisherei. Fortschritte in der Verbesserung des Fanggerätes, welche den Mitfang von kleinen Plattfischen und jungen Heringen ausschliessen. Entwicklung des Trawlheringsfanges in Deutschland; der Trawlheringsfang anderer Nationen (1926-1933). Verhältnis zwischen Treibnetzheringsfischerei und Trawlheringsfischerei Deutschlands.

**Godtfredsen A.** - Det danske Sildefiskeri ved Island. - Nordisk Havfisk. Tidsskr., VIII, 8, 5-7. København (1934). **b - 2024**

**Hart J. L. & Beall D.** - Relationship of Changes in Chemical Composition of Herring to Methods of Processing. - Ann. Rep. Biol. Board Canada, 1933, 87. Ottawa (1934). **b - 2025**

Investigation of the changes in composition of herring, particularly the oil content, with season. Reciprocal relationship between oil and water content.

**Hodgson W. C.** - Herring Problems of East Anglia. The Rate of Growth. Food always Available for Normal Development. - Fish. News, 10-II-34, 20-22. Aberdeen (1934). **b - 2026**

**Hodgson W. C.** - Herring Problems of East Anglia. Variations of the Shoals: Year Groups and their Outstanding Characteristics. - Fish. News, 17-II-34, 22-23. Aberdeen (1934). **b - 2027**

**Hodgson W. C.** - Herring Problems of East Anglia. Mysterious Effect of the Moon: True Case of Phenomena Hard to Discover. - Fish. News, 10-III-34, 24-26. Aberdeen (1934). **b - 2028**

**Hodgson W. C.** - Herring Problems of East Anglia. Science of Forecasting and Practical Application of Knowledge. - Fish. News, 17-III-34, 26-27. Aberdeen (1934). **b - 2029**

**Hodgson W. C.** - Herring Problems of East Anglia. How Accuracy in Forecasting Season's Catches can be secured. - Fish. News, 24-III-34, 26-27. Aberdeen (1934). **b - 2030**

**Hodgson W. C.** - Herring Problems of East Anglia. Records of Catches: Difference between Modern and Pre-war Nets. - Fish. News, 21-IV-34, 24-25. Aberdeen (1934). **b - 2031**

**Hodgson W. C.** - Result of the 1933 Herring Forecast. Calculation of the Age-Composition of Stock again Proves Accurate and Reliable. - Fish. News, 26-V-34, 22-23. Aberdeen (1934). **b - 2032**

**Huntsman A. C.** - Fluctuations in Herring Catches. - Ann. Rep. Biol. Board Canada, 1933, 22. Ottawa (1933). **b - 2033**

Outstanding part of the temperature in determining seasonal fluctuations, and rainfall, as the most important physical factors in causing annual as well as irregularly seasonal fluctuations in the catches of herring in the Bay of Fundy.

**Lissner H.** - La pêche allemande du hareng de chalut. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 309-311. Paris (1933). **b - 2034**

**Makuschok M.** - Le hareng de Mourman (En russe). - Za Rybn. Ind. Severa, 4, 14-19. Leningrad (1933). **b - 2035**

**Mamonov P.** - Problèmes d'actualité de la mise en valeur du hareng de Mourman (En russe). - Za Rybn. Ind. Severa, 5, 1-3. Leningrad (1933). **b - 2036**

**Peace H. L.** - Florida Menhaden Season Gets Under Way. - Fish & Oyster Rep., XV, 11, 4. Tampa, Fla. (1934). **b - 2037**

Actual condition of several industries in Florida; the amount of the menhaden catches; organization of fish producers: oyster-bottoms restocked.

**Reichert-Facilides** - Der Hering im deutschen Wirtschaftsleben. 2 Tab., Dtsch. Fischwirtsch., I, 31, 536-537. Berlin (1934). **b - 2038**

Heringsfangmethoden in der Ostsee; Eigenfang und Einfuhr von grünen und gesalzenen Heringen; immer stärkere Einstellung der deutschen Fischwirtschaft auf den Heringsfang.

**Runnstrøm Sven** - Sildeundersøkelsene 1931-32. 2 fig., 2 tabl., Årsber. v. Norg. Fisk. 1932, 1, 68-73. Bergen (1934). **b - 2039**

Researches on the spawning and races.

**Runnstrøm Sven** - V. The Pelagic Distribution of the Herring Larvae in the Norwegian Waters. 1 fig., 4 Tab., Rapp. Pr.-Verb. Cons. Expl. Mer, (Scient. Rep. North-Eastern Area Comm., 1934), LXXXVIII, 1-6. Copenhague (1934). **b - 2040**

The material for these investigations including 6833 larvae has been gathered from plankton samples originating from the cruises of research vessels during the years 1900-1910 and 1922-1932. The results of the researches are expressed in tables and graphs indicating different size groups, localities and time. Some new information on the spawning places and the transport of fry has been gained.

**Savage R. E. & Hodgson W. C.** - Lunar Influence on the East Anglian Herring Fishery. 6 figs., 1 table on pl., Journ. Cons. Expl. Mer, IX, 2, 223-239. Copenhague (1934).

(—) See also résumé by Erdmann, Fischmarkt, II, 12, 315-317. Cuxhaven (1934). **b - 2041**

The authors have found a definite rhythm in the quantities of Herrings caught off East Anglia, a monthly rhythm with maxima coinciding with the period of full moon, but the preliminary observations on the fisheries of North Shields and Grimsby are not so conclusive. In a table are given dates which represent the midpoints of seven-day periods calculated from the dates of the October and November full moons.

**Smith W. C.** - Manx Herring Fishery Report for 1933. Douglas, I. O. M. (1934). **b - 2042**

**Steffen W.** - Die grosse Heringfischerei. - Jahresber. Dtsch. Fisch., 1932, 166-169. Berlin (1933). **b - 2043**

**Tester A. L.** - The Herring of the Commercial Catch of British Columbia. - Ann. Rep. Biol. Board Canada, 1933, 100-101. Ottawa (1934). **b-2044**

The investigation is primarily concerned with three possible causes of fluctuation, fishing activity, year class variation, and migration.

**Wilhelmi C.** - Neue Wege der deutschen Heringsfischerei. - Fischmarkt, II, 12, 312-315. Cuxhaven (1934). **b - 2045**

Bericht über die von der « Deutsch-Isländischen Co. », Hamburg ausgerüstete Expedition auf dem Fischdampfer « Friedrich Busse » zur Betreibung der Heringsfischerei an der isländischen Nordküste mit der aus Amerika eingeführten Ringwade (Beutelnetz). Bedeutung der Heringsfischerei bei Island für Norwegen (statistische Angaben). Beteiligung verschiedener Nationen an dieser Fischerei.

**Wood Henry** - The Natural History of the Herring in Scottish Waters. 7 figs., 2 charts, 36 pp., The Buckland Lectures, Third Ser. for 1932. Fish. News. Aberdeen (1934). **b - 2046**

Progress made in the scientific study of herring fishing. Description of the methods by which salient facts in the natural history of the herring have been determined and the knowledge applied to the problems of the commercial fisheries.

**Zhilinskij A.** - Sur la question du développement de la pêche du hareng au Mourman (En russe). - Za Rybn. Ind. Severa, 1, 19-22. Leningrad (1933). **b - 2047**

**Deutsche Heringshandel-Gesellschaft m. b. H.. Bremen** - Statistik der deutschen Heringsfischerei im Nordseegebiet für 1933. 1 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 5, 194-195. Berlin (1934). **b - 2048**

Statistische Angaben über die Ergebnisse der Fänge von 6 Reedereien und vergleichende Tabelle der Totalfänge der Heringsfischerei für den Zeitlauf von 1906 bis 1933.

**Sea Fish Commission for the United Kingdom** - First Report. The Herring Industry. - Sea Fish Comm. United Kingdom. London (1934). **b - 2049**

**An.** - Untersuchungen über den Hering in der nordwestlichen Nordsee. - Fischmarkt, II, 7, 187-189. Cuxhaven (1934). **b - 2050**

Zusammenfassende Wiedergabe der gewonnenen Ergebnisse aus den von H. Wood ausgeführten Prüfungen der Zusammensetzung der Marktfänge von Hering, über welchen er auf der in Kopenhagen abgehaltenen Tagung der Internationalen Meeresforschung berichtet hat. Einige Ausführungen über den schottischen Heringsbestand.

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## *Sardinae, etc.*

**Bahr Kl.** - Sardelle (*Engraulis encrasicholus*, Cuv.) vor der Ostpreussischen Samlandküste. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 6, 246. Berlin (1934). **b - 2051**

Bericht über den Fang einer Sardelle vor der ostpreussischen Samlandküste, welcher besondere Beachtung verdient, weil dieser Fang scheinbar den ersten Fall, dass ein Sardelle östlicher als vor der mecklenburgischer Küste angetroffen wurde, darstellt.

**Battle Helen I.** - Temperature and « Clearing » Time for the Sardine. - Canad. Fisherm., XXI, 8, 11. Gardenvale, Que. (1934). **b - 2052**

Experiments conducted at the Atlantic Biological Station in order to determine experimentally the relationship between the time required for digestion or the « clearing » process and the temperature of the water in which the fish are confined.

**Beaugé L.** - Deux remarques sur la sardine. Influence des pluies et loi des complémentaires. 2 graph., Bull. Soc. Océanogr. France, XIII, 70, 1244-1248. Paris (1933). **b - 2053**

Brèves considérations au sujet de l'influence des conditions physico-chimiques de l'habitat sur l'abondance et la raréfaction de la pêche. La sardine de dérive et la sardine de rogue. Liaison entre les précipitations atmosphériques et la présence de la sardine de rogue. Courbe représentant cette liaison. Existence de régions et d'espèces « complémentaires ». Compensation d'une espèce par une autre. Mesures nécessaires pour conjurer les crises de la pêche, dues à de raisons biologiques d'origine hydrologique.

**Bjerkan Paul** - Brislingundersøkelsene 1931-1932. - Årsber. v. Norg. Fisk. 1932, 1, 73-78. Bergen (1934). **b - 2054**

Expeditions, investigations on length, age and fry ; occurrence of *Clupea sprattus* and factors concerned, fishing results from different regions.

**Clark F. N.** - Changing Abundance of the California Sardine, Measured by Length of Scouting Time. Calif. Fish & Game, XIX, 136-141. (1933). **b - 2055**

**Hart J. L.** - Pilchard Fishery. 2 tabl., Ann. Rep. Biol. Board Canada, 1933, 84-86. Ottawa (1934). **b - 2056**

Results of studies conducted in connection with the failure of the pilchard fishery during the 1933 season. Considerations as to the causes of the collapse, chiefly concerned with the reward of fishing effort, the changes in average length of the catch, and the hydrographic conditions of the fishing grounds.

**Hart J. L.** - Catch Statistics of the British Columbia Pilchard. 5 tables, Rep. Comm. Fish. 1933, App. 54-59. Victoria, B. C. (1934). **b - 2057**

Results of an attempt to estimate the abundance of pilchard (*S. coerulea*) from a consideration of catch statistics on the assumption that the size of the catch for a unit of fishing-gear is proportional to the general abundance of the species.

**Meyer Paul-Fr.** - Ueber das Vorkommen von Sardellenschwärmen (*Engraulis encrasicholus* L.) und von Bastardmakrelen (*Caranx trachurus* L.) in der Ostsee. 2 Tab., Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 6, 242-245. Berlin (1934). **b - 2058**

Bericht über zum ersten Male beobachtete Sardellenschwärme im November und Dezember 1933 in den westlichen Ostsee. Häufige Auftreten in manchen Jahren von Sardellenschwärmen in der Nordsee. Unwahrscheinbarkeit der Verfrachtung von Eiern und Larven dieses Fisches. Ursache des Vordringens dieses im Mittelmeer und in den südwesteuropäischen Gewässern beheimateten Fisches in die Ostsee. Vermutungen über das wechselnde Vorkommen jugendlicher Bastardmakrelen in der Ostsee.

**An.** - L'industrie de la conserve de Sardines en France et à l'étranger. - Pêche Marit., Pêche Fluviale et Piscicult., XVII, 265-267. Paris (1934). **b - 2059**

**An.** - Statement Showing the Pilchard Industry of the Province, 1920 to 1933, inclusive. 1 table, Rep. Comm. Fish. 1933, App. 78. Victoria, B. C. (1934). **b - 2060**

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## *Scomber et aliae Scomberidae.*

**Hess Ernest** - Canned Mackerel. - Ann. Rep. Biol. Board Canada, 1933, 55. Ottawa (1934). **b - 2061**

Account of a series of experiments made at the Atlantic Fisheries Experimental Station on different methods of canning mackerel.

**Sette Oscar E.** - Outlook for the Mackerel Fishery, 1934, 2 tabl., U. S. Dpt. Comm., Bur. Fish., Fish. Circ., 17, 1-6. Washington, D. C. (1934). **b - 2062**

A forecast of the probable abundance of the mackerel during the season 1934, on hand of the results of the investigations of its fluctuations carried on by the U. S. Bureau of Fisheries for the last 6 years.

**Sette O. E. & Needler A. W. H.** - Statistics of the Mackerel Fishery off the East Coast of North America 1804 to 1930. 6 figs., 37 tabl., U. S. Dpt. Comm. Bur. Fish., Inv. Rep. 19, 1-48. Washington, D. C. (1934).

(—) See Abstract in : Canad. Fisherm., XXI, 8, 7-8. Gardenvale, Que. (1934). **b - 2063**

This is the third report of the statistical series sponsored by the North American Council on Fishery Investigations.

**An.** - Pickled Mackerel Situation. - Canad. Fisherm., XXI, 2, 19-20. Gardenvale, Que. (1934). **b - 2064**

Account of the fluctuations of catches and prices of pickled mackerel ; large catches in depression years ; suggestions as to the solution of the problem.

**An.** - Forecasting Fish Catches in Advance. - Canad. Fisherm., XXI, 8, 21. Gardenvale, Que. (1934). **b - 2065**

After a brief outlook of the work performed under the supervision of O. E. Sette in order to investigate the migrations of mackerel around the American coasts with the assistance of mackerel fishermen, the article points out the importance of a mutual assistance of fishermen and scientists for the elaboration of forecast of fish catches.

**An.** - The 1934 Mackerel Catch. 1 graph, 1 table, Fish. Gaz., LI, 9, 6. New York (1934). **b - 2066**

Statistic statements ; graph showing the annual catch of mackerel by American vessels, 1804-1933 ; tables containing data on annual landings of the mackerel fleet, 1924-1933.

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## *Anguillae.*

**Gandolfi Hornyold A.** - La civelle. - Bull. Soc. Océanogr. France, XIII, 71, 1249-1256. Paris (1933). **b - 2067**

Cycle évolutif de l'anguille : leptocéphale, civelle (phases larvaires), anguille jaune, anguille argentée. Les migrations de la civelle. Sa distribution. Engins employés pour la pêche des civelles en France et en Espagne. Importation des civelles de France en Espagne. Données statistiques sur la pêche des civelles depuis Bidassoa jusqu'à la Loire pendant la saison de pêche 1922-23. Liste des exportations de civelles pendant la même saison de pêche 1922-23. Liste des exportations de civelles pendant la même saison distribuées selon les gares d'expédition. Règlementation de la pêche des civelles en France. Statistiques de la vente des civelles sur le marché de Saint Sébastien (1926-1932). Autres possibilités d'utilisation de la civelle en dehors de sa consommation comme poisson comestible. Utilisation de la civelle pour le repeuplement des eaux intérieures dans les différents Pays.

**Roehler E.** - Aalwirtschaft in den deutschen Gewässern II. - Fischmarkt, II, 1, 4-6. Cuxhaven (1934). **b - 2068**

II. Neue Aalfütterungsversuche : Bericht über in 1930 in Päwesin bei Brandenburg a. d. Havel unternommene Massnahmen zur Fütterung von Satzaalen durch künstlich in die Gewässer hineingebrachte Futtermittel. Ausführungsmethode und Ergebnisse der Versuche. Drei Möglichkeiten der Versuche. Verwertung der schwer oder gar nicht abzusetzenden Weissfische und sogar des Fischunkrautes, bei dem man auch die Wollhandkrabbe einbeziehen kann.

**Ireland** - Salmon, Sea Trout and Eels Captured in 1927, 1929 and 1931. - Dpt. Fish., Dublin (1934). **b - 2069**

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## *Salmonidae.*

**Bahr Klaus** - Die Neukuhrener Lachsfischerei während der Fangzeiten 1931/32-1933/34. 1 Abb., 2 Tab., Dtsch. Fischwirtsch., I, 24, 384-386. Berlin (1934). **b - 2070**

Das Zahlenmaterial umfasst die Fangerträge einer während dieser drei Fangzeiten annähernd gleichen Anzahl von Fischereifahrzeugen. In den Tabellen sind die in den einzelnen Jahren monatlich gezählten Fangtage und das Durchschnittgewicht in Pfund nach Monaten berechnet, angegeben. Die Figur zeigt Ertragskurven der einzelnen Fangzeiten in Stück.

**Clemens W. A., Foerster R. E., Carter N. M. & Rawson D. S.** - A Limnobiological Survey of Shuswap Lake. - Ann. Rep. Biol. Board Canada, 1933, 75. Ottawa (1934). **b - 2071**

Data obtained during the two-week periods of instruction for hatchery officers at Shuswap lake in the summers of 1931 and 1932 concerning the limnobiology of a portion of the main lake, which is of a great importance for the propagation of salmon and trout.

**Dixon Boris** - The Age and Growth of Salmon caught in the Polish Baltic in the Years 1931-1933. 2 diagr., 1 tabl., Journ. Cons. Expl. Mer, IX, 1, 66-78. Copenhague (1934). **b - 2072**

Measurements of salmon catches. The size of fish. Age. Life in river and sea. Growth : calculated length in cm. Spawning marks. Analysis of small salmon, so-called « mielnica ». Length of body. Age. River and marine periods. Back-calculation of length, in cm.

**Foerster R. E.** - The Relative Efficiencies of Natural and Artificial Propagation of Sockeye Salmon at Cultus Lake B. C. 2 tabl., Ann. Rep. Biol. Board Canada, 1933, 79. Ottawa (1934). **b - 2073**

Results of the third test of the efficiency of artificial propagation with liberation of free-swimming fry commenced during the season 1932-1933. Tables of the data obtained.

**Foerster R. E.** - Transplantation of Sockeye Salmon for Restocking Purposes. - Ann. Rep. Biol. Board Canada, 1933, 81. Ottawa (1934). **b - 2074**

Brief account of operations at Eagle river in 1933 confined to the counting of returning adult sockeye from the marking of 1929, 1930 and 1931.

**Foerster R. E.** - Experimental Tests of Sockeye Salmon Artificial Spawning and Fertilization Methods. - Ann. Rep. Biol. Board Canada, 1933, 81-82. Ottawa (1934). **b - 2075**

Results of an experiment made in 1932-33 and which confirms the results obtained in previous years.

**Foerster R. E.** - Pond Retention of Sockeye Salmon. 1 table, Ann. Rep. Biol. Board Canada, 1933, 82-83. Ottawa (1934). **b - 2076**

Results of an experiment in pond retention of sockeye salmon carried out in 1932 with a view to determine the value of such retention in comparison with distribution as free-swimming fry. Account of the recoveries of the retained fish which were marked and liberated into Cultus lake.

**Foerster R. E.** - Brown Trout Feeding Tests. 1 table, Ann. Rep. Biol. Board Canada, 1933, 83. Ottawa (1934). **b - 2077**

Account of a series of feeding tests conducted on brown trout in retaining ponds at the Cowichan lake hatchery to determine the value of certain rations as compared with the usual beef liver diet.

**MacFarlane P. R. C.** - Salmon of the River Tay, 1930. 1 diagr., 6 tabl., 1 pl., Fish. Scotland Salmon Fish., V, 3-20. Edinburgh (1934). **b - 2078**

The present report is based on a collection of 1,795 sets of scales from salmon taken in the nets on the Tay troughout the season 1930. Its especial interest consists in the variety of the main river and its tributaries, and the consequent diversity of salmon living in them.

**Maurice Henry G.** - Salmon and Fresh Water Fisheries. Report for the Year 1933. 1 diagr., 3 tabl., 6 pl., H. M. Stat. Off., Minist. Agricult. & Fish., 3-44. London (1934). **b - 2079**

Prefatory letter. General: The season of 1933, Furunculosis. Pollution. Work at Alresford Experimental Station. Annual Reports of Fishery Boards. Administration. Miscellaneous. Appendices.

**Motherwell J. A.** - The Salmon Spawning Areas. 1 table, Rep. Comm. Fish., 1933, App. 48-53. Victoria, B. C. (1934). **b - 2080**

Results of the inspections of the spawning areas of the Fraser, Skeena, Rivers Inlet and Nass Systems.

**Nall Herbert G.** - Sea Trout of the Montrose District, the Bervie, the North Esk, the South Esk, and Coast Nets. Part I. The District and Its Sea Trout. 2 graphs, 16 tabl., 6 figs., 7 pl., Fish. Scotland, Salmon Fish., III, 5-63. Edinburgh. (1934). **b - 2081**

Preface. Technical terms. Introduction and survey of results. Bervie Water. North Esk. South Esk. Coast Net (excluding the Bervie). Summary. Appendix: Brown Trout.

**Nall Herbert G., Menzies W. J. M. & Macfarlane P. R. C.** - Sea Trout of Lewis and Harris. Further Notes on Collections of Scales from this District. 1 map, 42 tables, 6 pl., Fish. Scotland, Salmon Fish., IV, 3-71. Edinburgh (1934). **b - 2082**

Preface. Technical terms. Introduction and survey of results. Details of samples from the several centres. Summary. Appendix I: Brown trout. Appendix II: North Harris salmon. The senior author of the paper is responsible for analysisg the results and writing the paper. The descriptive section on North Harris is written by Mr. W. J. M. Menzies, the Appendix on North Harris Salmon by Mr. Macfarlane, who also made the photomicrographs of scales and the map.

**Pellegrin J.** - La pêche du saumon en Ecosse. - Bull. Soc. Centr. Aquicult. et Pêche, XL, 10/12, 105-116. Paris (1933). **b - 2083**

**Poulsen Erik M.** - Remarks on the Artificial Propagation of Salmon and Sea Trout. - Rapp. Pr.-Verb. Cons. Expl. Mer., XCI, 15-16. Copenhague (1934). **b - 2084**

On hand of comparisons between natural and artificial propagations with regard to the number of spawning fish, the number of eggs fertilized, the hatching of eggs and the loss from « the tiny fry stage » to the smolt stage the A. discusses the value of the artificial propagation without however giving any definitive answer to its efficacy, for which further statistical observations will be necessary.

**Pritchard A. L.** - Efficiency of Artificial Propagation in Establishing a Run of Pink Salmon. 2 tabl., Ann. Rep. Biol. Board Canada, 1933, 93-94. Ottawa (1934). **b - 2085**

The conclusion which seems warranted from the experiments undertaken is that while the transplantation no doubt contributed to the general run of pinks, it was not successful in building a run in the area where no run occurred.

**White H. C.** - The Killing of Smolts and Parr by Anglers. - Ann. Rep. Biol. Board Canada, 1933, 42. Ottawa (1934). **b - 2086**

Necessity of organizing an educational campaign in order to instruct anglers who very often do not know that they destroy young salmon.

**White H. C.** - Restigouche Salmon Fry in East Apple River, N. S. - Ann. Rep. Biol. Board Canada, 1933, 43. Ottawa (1934). **b - 2087**

Results of observations on migrations, growth and survival of the 25,000 fry hatched from eggs of salmon from the Restigouche river, and planted in East Apple River, N. S., on July 15, 1932, during their second summer.

**Yamagawa Makoto & Nishizawa Tanzo** - Chemical Study on Protamine VI. 1) Acid Hydrolysis of Salmine. 19 tabl., Journ. Imp. Fish. Inst., XXX, 2, 97-116. Tokyo (1934). **b - 2088**

Results of a study performed on salmine sulphate, isolated and purified by Kossel's method from the sperm of Japanese Salmon, *Oncorhynchus keta*. Material. Analytical methods of free aminoacids after partial hydrolysis. Arginine and monoaminoacids set free by partial hydrolysis. Residue in the partial hydrolysis.

**An.** - Predictions of 1934 Salmon Runs. - Canad. Fisherm., XXI, 6, 25. Gardenvale, Que. (1934). **b - 2089**

Summary of the Preliminary Digest of the sockeye salmon run of 1933 to the four principal watersheds of British Columbia, and predictions based on same for 1934, by Drs. W. A. and Lucy S. Clemens of the Pacific Biological Station.

**An.** - Optimistic Outlook in Salmon Industry. - Canad. Fisherm., XXI, 8, 17, Gardenvale, Que. (1934). **b - 2090**

Good outlook for the salmon pack in British Columbia; lessening of the fears of depletion of the salmon and halibut areas; actual conditions of the salmon canning industry.

**An.** - Salmon Trap Vote Will Affect B. C. Fishermen. - Canad. Fisherm., XXI, 11, 25. Gardenvale, Que. (1934). **b - 2091**

Some considerations regarding the ballotting of the referendum on the abolishment of fish traps in the Puget Sound area, and the favorable effect the abolishment of the trap would have on the Canadian export trade.

**An.** - « Seelachs » im Urteil des Lebensmittelrechtes. - Dtsch. Fischwirtsch., I, 23, 366-367. Berlin (1934). **b - 2092**

Zusammenfassende Wiedergabe des Standpunktes des Lebensmittelrechts über die Frage der einwandfreien Bezeichnung von Seelachs für den Köhler oder Blaufisch (*Gadus virens* L.) mit besonderer Berücksichtigung des mit Anilinfarbe rot gefärbten Köhlers in Oel.

**An.** - Pack of British Columbia Salmon, Season 1933. 1 table, Rep. Comm. Fish., 1933, app., 74. Victoria, B. C. (1934). **b - 2093**

Statistic data showing the origin of Salmon caught in each district.

**An.** - Statement Showing the Salmon Pack of the Province, by Districts and Species, from 1918 to 1933, inclusive. 1 table, Rep. Comm. Fish. 1933, 74-77. Victoria, B. C. (1934). **b - 2094**

Statement concerning Fraser, Skeena Rivers, Rivers Inlet, Smith Inlet, Nass River, Vancouver Island District, Queen Charlotte and other Districts, and total packed by districts in 1918 to 1933, inclusive.

**An.** - Statement Showing the Sockeye-Pack of the Entire Fraser River System from 1894 to 1933, inclusive. 1 table, Rep. Comm. Fish. 1933, App., 77. Victoria, B. C. (1934). **b - 2095**

**An.** - Statement Showing the Sockeye-Pack of the Province by Districts, 1918 to 1933, inclusive. 1 table, Rep. Comm. Fish. 1933, App., 78. Victoria, B. C. (1934). **b - 2096**

**An.** - Salmon. - Rep. Newfoundland Fish. Res. Comm., Ann. Rep., II, 2, 66-71. Plymouth (1934). **b - 2097**

Some results of the biological study of the life history of the salmon of Newfoundland. Greater quantity of small summer fish during 1933 than in 1932. Relation of catches to water-temperature. The spring fishery at Bay Bulls. The outlook for 1934.

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## *Squali.*

**Bonde (von) Cecil** - Shark Fishing as an Industry. 6 figs., 2 pls., 1 table., Fish. & Mar. Biol. Surv., Rep. N° 11, Invest. Rep. 2, 3-19. Pretoria (1934). **b - 2098**

Methods of capture of shark. Industrial uses of Elasmobranchs: Leather and Byproducts: 1) Shagreen; 2) Fins; 3) Meat; 4) Fertilizer, stock and animal fodder; 5) Oils from shark and dogfish; 6) Glue; 7) Other uses. List of the commoner species of Elasmobranchs occurring in South African seas.

**Kaganovskaja S.** - Methods for Ascertaining the Age and Composition of the Catch of *Squalus acanthias* L. (In Russ.). 1 table, 3 figs., Bull. Far East. Branch Acad. Sc., U. S. S. R., 1/2/3, app. 5-6. Vladivostok (1933). **b - 2099**

Methods employed by the Pacific Institute of Fisheries for the determination of age and composition of the catches of *S. acanthias* L. on hand of observations of the number of rings on its thorns.

**Walford L. A.** - The Commercial Uses of Sharks and Rays. - Calif. Fish & Game, XIX, 3, 179-188. (?) (1933). **b - 2100**

**Young & Mazet H. S.** - Trente ans de pêche aux Requins. 23 fig., pl., 309 pp., Payot. Paris (1934). **b - 2101**

La vie aventureuse du Capitaine Young qui, de pêcheur amateur, devint pêcheur professionnel et fit la chasse aux Requins dans les eaux de toutes les mers. Description détaillée des différentes variétés de Squales, de leurs caractéristiques, de leur habitat et des moeurs de chaque espèce.

**An.** - Haifisch auf dem Fischmarkt. - Fischmarkt, II, 4, 101-102. Cuxhaven (1934). **b - 2102**

Die grosse Bedeutung der Haifische in der Seefischerei Nordeuropas; die erneute Zunahme der Fangmengen; kritische Betrachtungen über die internationale Statistik des Haifischfanges, welche im Büro der Internationalen Meeresforschung in Kopenhagen bearbeitet wird, mit besonderer Berücksichtigung des norwegischen Haifischfanges.

**An.** - Der « Grosse Mako » ein springender Haifisch. - Fischmarkt, II, 8, 217-218. Cuxhaven (1934). **b - 2103**

Bericht über einen springenden Haifisch der Südsee, welcher dem amerikanischem Blatte « Natural History » entnommen ist. Der Fisch, über den bisher keinerlei Berichte veröffentlicht sind, führt den Namen « Mako », während als wissenschaftlicher Gattungsname *Isurus* angegeben wird. Das Merkwürdigste an diesem Fisch ist die Fähigkeit gewaltige Luftsprünge auszuführen, wenn er am Haken festgekommen ist.

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## *Varia.*

**Belloc Gérard** - Catalogue illustré des Poissons comestibles du Maroc et de la côte occidentale d' Afrique (du Cap Spartel au Cap Vert). Première Partie: Poissons cartilagineux. 38 fig., Rev. Trav. Off. Pêches Marit., VII, 2, 117-193. Paris (1934). **b - 2104**

Ce catalogue contient les dénominations et diagnoses de 68 espèces de Poissons cartilagineux appartenant aux groupes des Squaloïdes, des Batoïdes, des Chiméroïdes, des Ganoïdes et des Cyclostomes. Il est complété par un index alphabétique des Poissons cartilagineux contenant leurs noms acoréens, anglais, canariens, espagnols, français, italiens, portugais, et des dialects sénégalais.

**Fick H.** - Vom Maifischfang auf der Unterelbe. - Fischmarkt, II, 175-176. Cuxhaven (1934). **b - 2105**

Einfluss der zunehmenden Ausdehnung und Industrialisierung des Städtegebietes, Hamburg, Altona und Harburg auf das Zusammendrängen des Laichgebietes von dem Maifisch oder Finte in der Unterelbe; die Fischereigeräte, welche zum Fange vom Maifische gebraucht werden; Erhöhung der Fangfähigkeit der Maifischnetze; erwünschte Hebung des Verbrauches an Maifischen zur Besserung der schwierigen Lage der Elbfischer.

**Hickling C. F.** - Le merlu et sa pêche. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 390-391. Paris (1933). **b - 2106**

**Leach Glen C.** - Propagation and Distribution of Food Fishes, Fiscal Year 1932, tabl., U. S. Dpt. of Comm., Bur. of Fish., App. IV to Rep. Comm. of Fish. for 1933, 531-569. Washington, D. C. (1933). **b - 2107**

Introduction. Part 1. Fish Production; Propagation and Rescue Work: Species handled. Output. Cooperation with other conservation agencies. Cooperative fish nurseries. State fish-cultural activities. Salvage operations. Transfers of eggs between stations. Assignments of fish eggs to State, territories, and foreign countries. Output of stations and substations. Egg collections. Notes on operations. The aquarium.

Part 2. Distribution of fish and fish eggs. Method of distribution.

**Leach Glen C.** - Propagation and Distribution of Food Fishes, 1933. 8 tabl., U. S. Dpt. Comm. Bur. Fish., Append. IV Rep. Comm. Fish. for 1933, 451-484. Washington, D. C. (1934). **b - 2108**

The development of the system of Federal fish hatcheries.

Introduction: Species handled. Output. Cooperation with other conservation agencies. Cooperation with sportsmen's organizations. Salvage operations. Assignment of fish eggs to States, Territories, and foreign countries. Transfers of eggs between stations. Output of fish. Egg collections. Notes on operations. Aquarium. Fish-cultural notes. Distribution operations.

**Meseck** - Zum Rückgang der Kaulbartschererträge im Stettiner Haff. 1 Diagr., Dtsch. Fischwirtsch., I, 6, 95. Berlin (1934). **b - 2109**

Besprechung der Ursachen des Kaulbarschrückganges im Stettiner Haff. Bericht über die wichtigsten Ergebnisse der fischereibiologischen Untersuchung, an Hand einer Veröffentlichung von Dr. E. Neuhaus, welche in der « Zeitschrift für die Fischerei », 1934, S. 1-35 veröffentlicht worden ist.

**Moorhouse F. W.** - Commercial Sponges from the Barrier Reef. 2 pl., Rep. Great Barrier Reef Comm., IV, part 1, 3, 30-34. Brisbane (1933). **b - 2110**

Description of three commercially important sponges from the reefs and cays of the Barrier Reef. Some experiments for the study of growth and farming possibilities as well as hints for the preparation of the sponges.

**Villadolid V. Deogracias** - Kanduli Fisheries of Laguna de Bay Philippine Islands. 2 tabl., Philipp. Journ. Sc., LIV, 4, 545-552. Manila (1934). **b - 2111**

The Kanduli of Laguna de Bay belongs to the catfish group, *Arius* species, family *Ariidae*. Factors and positive signs of depletion. Remedial and regulatory measures.

**Zenkevich L., Brotzky V. A. & Dektereva A.** - Fish-food in the Barents Sea. Part II. - Rep. first Session State Oceanogr. Inst., 1931, 4, Moscow (1933). **b - 2112**

**Eh.** - Der Sandspierling, einer der häufigsten Fische. 2 Abb., Fischmarkt, II, 7, 176-181. Cuxhaven (1934). **b - 2113**

Vermehrung unserer Kenntnis vom Meere in den letzten 40 Jahren dank den zahlreichen neuen Instituten und Meereslaboratorien, die in den letzten Jahrzehnten in fast allen Kulturländern gegründet wurden. Ergebnisse neuerer Untersuchungen über die grosse Individuenzahl, in der der Spierling auftritt, sein Laichen, seine Nahrung; einige Betrachtungen über den « grossen Sandspierling », *Ammodytes lanceolatus* Lesueur.

**Stt.** - Die Pillauer Stichlingsindustrie. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 4, 142. Berlin (1934). **b - 2114**

Entwicklung und Bedeutung der Stichlingsindustrie von Pillau. Herstellung aus Stichlingen von Fischtran und Fischmehl. Einzelheiten über die Stichlingsfänge und ihre Verarbeitung an Hand der Angaben von der Fabrik « Germania ».

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### *Ostreae et alia Mollusca - Molluschicultura.*

**Bezian J. L.** - Notions actuelles sur la salubrité de l'huître. - Ostréicult. et Cult. Mar., 10, (1933). **b - 2115**

**Bruce Charles** - Recherches sur les pétoncles en 1932. - 3-ème Rapp. Ann. Pêch. Canada, 1932-33, App. 7, 185. Ottawa (1934). **b - 2116**

Compte rendu des recherches entreprises en vue de la localisation de gisements de pétoncles avec un bateau-dragueur à pétoncles le long de la côte de l'Ile-du-Prince-Edouard et de la côte orientale des Iles-de-la-Madeleine.

**Clark A. E.** - Oyster Spawning in Bideford River-1933. - Ann. Rep. Biol. Board Canada, 1933, 18. Ottawa (1934). **b - 2117**

Results of a study carried out in order to determine approximately the dates, and the amount of spawning of the Oysters in Bideford River P. E. I.

**Costard M.** - La reconstitution des gisements huîtriers de Granville. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 484. Paris (1933). **b - 2118**

**Coulson E. J.** - The Iodine Content of Oysters. 5 tabl., Fish & Oyster Rep., XV, 10, 4-5 & 8-9. Tampa, Fla. (1934). **b - 2119**

Preliminary results of a study on the variations in iodine content of Oysters with respect to locality and season.

**Elsey C. R.** - The Eastern Oyster Situation in the Boundary Bay Area in 1933. - Ann. Rep. Biol. Board Canada, 1933, 78. Ottawa (1934). **b - 2120**

Results of systematic observations of the seasonal cycle of the eastern oyster in the Boundary Bay region made in order to determine the fullest possibilities of its exploitation. Investigation on damages caused by the Eastern oyster drill, *Urosalpinx cinerea*.

**Gaarder Torbjørn & Bjerkan Paul** - Østers og østerskultur i Norge. 48 fig., 96 pp., A. s. John Griegs Boktrykkeri. Bergen (1934). **b - 2121**

The North-European oysters: Structure and biology. Chemical composition. Dangers threatening the oysters. Breeding of oysters. Breeding of oysters in Norway: Pools and researches on pools, material for breeding. Norwegian literature on oysters and breeding of oysters.

**Galtsoff P. S.** - The Use of Slag for Oyster Culture. - Fish Magaz., March, New York (1934). **b - 2122**

**Havinga B.** - Austern- und Muschelkultur. 12 Tab., 44 Abb., i. T. u. auf 19 Taf., Handb. Seefisch. Nordeuropas, 5, 1-64. Stuttgart (1932). **b - 2123**

I. Die holländische Austernkultur: Geschichtliche Entwicklung, Brutgewinnung, Aufzucht, Beschaffenheit der Bänke, Handel und Produktion, Verwaltungstätigkeit, Fahrzeuge und Betriebe, Austernkultur auf den holländischen Watten. II. Austernkultur in Deutschland. III. Austernkultur in Dänemark. IV. Austernkultur in Grossbritannien, V. Austernkultur in Norwegen, VI. Allgemeine Betrachtungen und Ausblikke, VII. Miessmuschelkultur: Muschelsaatgewinnung, Aufzucht, Handel und Produktion, Fahrzeuge, Fanggeräte und Betriebe, Miessmuschelzucht in anderen Gewässern.

**Iredale T. & Roughley T. C.** - The Scientific Name of the Commercial Oyster of New South Wales. - Proc. Linn. Soc. N. S. Wales, LVIII, 278. Sydney (1933). **b - 2124**

**Johnson F. F.** - Aquatic Shell Industries. - 5 figs., 9 tabl., U. S. Dpt. Comm., Bur. Fish., Fish. Circ., 15, 1-17. Washington, D. C. (1934).

(—) Fish & Oyster Rep., XV, 12, 4-5, 8-9 & 12-13. Tampa, Fla. (1934). **b - 2125**

Introduction. History. Sources of raw material. Manufacture. Production statistics. Aquatic shell products and their use. Seasons of manufacture. Distribution of shell products. Selling practices.

**Lambert L.** - Note sur l'élevage, le parcage et le commerce des Bigorneaux sur les côtes de France. - Ostréicult. et Cult. Mar., Juin. (1933). **b - 2126**

**Lambert L.** - La moule et la mytiliculture. - Ostréicult. et Cult. Mar., Août. (1933). **b - 2127**

**Lo Giudice Pietro** - Molluschicultura. - Boll. Pesca, Piscicolt. e Idrobiol., IX, 5, 1933, 782-790. Roma (1933).

(—) III Corso magistrale marittimo peschereccio, 11 pp., Tipogr. A. Manuzio, Ist. Poligr., Stato. Roma (1933). b - 2128

Le specie oggetto di coltivazione appartengono alla classe dei Lamellibranchi. Quelle di maggior importanza economica sono le Ostriche e i Mitili; esse costituiscono due distinte industrie, l'ostreicultura e la mitilicultura. Vengono pure coltivati altri Lamellibranchi appartenenti ai generi: *Venus*, *Cardium*, *Tapes*, *Solen*, *Donax*. Luoghi di coltivazione, produzione annuale, valore nutritivo e salubrità di questi Molluschi eduli.

**Manley-Bendall** - Un triomphe de la vérité scientifique. A propos des perles fines de culture. - Bull. Soc. Océanogr. France, 73, 1287-1292. Paris (1933). b - 2129

Information sur différentes décisions judiciaires qui considèrent les perles de culture comme de véritables perles fines.

**McKay Colin** - Oyster Farming in British Columbia. - Canad. Fisherm., XXI, 8, 21-22. Gardenvale, Que. (1934). b - 2130

Development of oyster farming in British Columbia since 1915; appearance of a disease which destroyed most of the Oysters; different kinds of Oysters cultivated in British Columbia waters.

**McMillin Harvey C.** - California Builds an Oyster Industry. 4 figs., Fish. Gaz., LI, 12, 9-10 & 14. New York (1934). b - 2131

Organization of the cultivation of native, eastern or Japanese Oysters in California: Recommendations made by the State Division of Fish & Game and the U. S. Bureau of Fisheries for use of area suitable for this cultivation. Results obtained.

**Moorhouse F. W.** - The Commercial *Trochus* (*Trochus niloticus*). 2 app., Rep. Great Barrier Reef Comm., IV, part 1, 2, 23-29. Brisbane (1933). b - 2132

Production and industrial development. Legislation. Migrations, growth and reproduction.

**Needler Alfreda Berkeley** - Crowding and Sex Reversal in *Ostrea virginica*. - Ann. Rep. Biol. Board Canada, 1933, 30. Ottawa (1934). b - 2133

Results of studies of sex ratio among the Oysters on the beds near the Prince Edward Island Marine Station, showing that the degree of crowding may be responsible for the swing towards maleness although it is not sufficient appreciably to affect health or growth.

**Needler A. W. H.** - Mortality of Scallops in the Southern Gulf of St. Lawrence. - Ann. Rep. Biol. Board Canada, 1933, 30-31. Ottawa (1934). b - 2134

Brief account of serious mortality of Scallops, causing depletion of formerly productive beds, occurred in the southern Gulf of St. Lawrence in 1927-28 and 1933. The explanation is being sought in parasitism by a micro-organism and in unusual hydrographic conditions.

**Needler A. W. H.** - Oyster Investigations at Shediac, N. B. - Ann. Rep. Biol. Board Canada, 1933, 31-32. Ottawa (1934). b - 2135

Results of investigation of the oyster cultural possibilities of the Shediac area in connection with the development of the industry there, carried on by the Department of Fisheries during 1932 and 1933; study of statistics of the fishery, of spat collection and experimental tonging.

**Needler A. W. H.** - Collection of Spat; Use of Floats for Exposing Cultch. - Ann. Rep. Biol. Board Canada, 1933, 32. Ottawa (1934). b - 2136

Results of trials with floats for exposing cultch for the collection of oyster spat in order to avoid losses from starfish; trials of concrete coated tiles and of rope tarred and sanded.

**Needler A. W. H.** - Rearing of Spat. - Ann. Rep. Biol. Board Canada, 1933, 32-33. Ottawa (1934). b - 2137

Results of attempts made in 1933 of rearing of oyster spat on floats with two chief ends in view: to produce small oysters of sufficient size to escape most of the loss from starfish, and to make use of spat collected on concrete-coated cardboard collectors.

**Needler A. W. H.** - Size of Oysters Destroyed by Starfish. - Ann. Rep. Biol. Board Canada, 1933, 33. (1934). b - 2138

Destruction of small Oysters by starfish as one of the chief obstacles to oyster culture in the Malpeque bay area. Results of trials conducted in 1933 to determine approximately how large a starfish must be relative to an oyster, to kill the latter.

**Needler A. W. H.** - Rapport sur l'ostréiculture pratiquée par le Ministère des Pêcheries en 1932-33. - 3-ème Rapp. Ann. Pêch. Canada, 1932-33, App. 6, 178-184. Ottawa (1934). b - 2139

Ostréiculture expérimentale dans la rivière Bideford, Ile-du-Prince-Edouard. L'ostréiculture dans la région de Charlottetown. Amodiation de fonds ostréicoles à l'Ile-du-Prince-Edouard. Recherches à Shédiac, Nouveau-Brunswick.

**Pinci Giovanni** - Perle coltivate e perle naturàli. 204 pp., Tip. Off. Graf. Mantero, Tivoli (1934). b - 2140

Monografia sulla industria della perla coltivata, e sulla concorrenza della stessa alla perla naturale, con note sui luoghi di pesca e di coltivazione.

**Pritchard A. L.** - The Razor Clam (*Siliqua patula*) from North Beach, Graham Island, Queen Charlotte Islands, B. C. in 1932. - Ann. Rep. Biol. Board Canada, 1932, 96. Ottawa (1933). b - 2141

Results of investigation on the change occurring at times in the appearance of the Clams, which show that the conditions observed are normal and associated with spawning.

**Prytherch Herbert F.** - Scientific Method of Oyster Farming. 10 figs., Scient. Monthly, XXXVIII, February, 118-128. New York (1934). (—) See also: Fish & Oyster Rep., XV, 8, 2-3 & 10-11. Tampa, Fla. (1934). b - 2142

Co-operation of oystermen and scientists. The species of oyster cultivated in the United States. The fecundity of the oyster and the annual fluctuation of egg production. Long Island Sound, the greatest oyster-farming region in the World. The time of spawning of the oyster, the development, the setting. Different types of spat collectors. The oyster-growing bottoms. The feeding of the oyster. The preparation of the oysters for market.

**Quinn A. H.** - How the Miles Oyster Co. Modernized Its Plant. 2 figs., Fish. Gaz., LI, 2, 18-20. New York (1934). b - 2143

Account of how, with the aid of modern equipment, the company now does more business in a smaller plant.

**Teissonnière Maurice** - Salubrité des coquillages. 1 table, Rapp. Pr.-Verb. Comm. Expl. Scient. Méditerranée, VIII, 273-297. Paris (1934). b - 2144

Epidémiologie. Organisation de la défence sanitaire. Etat de la réglementation et du contrôle sanitaire en ce qui concerne les Moules sur le littoral méditerranéen français: Production. Entrepôt-Vente. Base d'évaluation de la salubrité des eaux et des coquillages. Identification du colibacille. Détermination d'un critérium bactériologique de salubrité. Epuration. Index bibliographique.

**Thurlow C. & Nelson Ph. D.** - The Use of Furnace Slag as Oyster Cultch. 6 figs., Fish. Gaz., LI, 8, 4-6. New York (1934). b - 2145

Results of experiments carried on at Delaware Bay and account of a six years study of the habits of oyster larvae which set upon the exposed Cape May shores of Delaware Bay, New Jersey. Advantages and disadvantages of slag employed as cultch.

**Tully J. P.** - Chemical Analysis of Oysters. - Ann. Rep. Biol. Board Canada, 1933, 102. Ottawa (1934). **b - 2146**

Results of analysis of the Pacific coast species of commercial Oysters (*Ostrea gigas*, *O. virginica*, and *O. lurida*) undertaken with a view to determine the variations existing in the water content, carbohydrates, proteins, fats, and ash, over the year.

**Voisin P.** - L'élevage des Huîtres. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 154-155. Paris (1933). **b - 2147**

**Voisin P.** - L'engraissement de l'huître. - Pêche Marit., Pêche Fluviale et Piscicult., XVI, 193-195. Paris (1933). **b - 2148**

**An.** - New Equipment and Supplies for the Oyster Dealer. 2 figs., Fish. Gaz., LI, 9, 9 & 14. New York (1934). **b - 2149**

Description of new types of oyster skimmer, tin container, paper containers now in use by oyster producers and shippers.

**An.** - An Improved Method of Shipping Oysters. 2 figs., 1 graph., 1 table, Fish. Gaz., LI, 12, 4-5, New York (1934). **b - 2150**

Series of tests using specially designed fibreboard shipping container with « dry-ice » as refrigerant showing certain advantages over prevailing method.

**An.** - Oyster Loans. 2 photos, Fish. Gaz., LI, 13, 9 & 12. New York (1934). **b - 2151**

Brief account of the progressing of the program of the FCA for making production credit available to oyster planters in three important oyster centers.

**An.** - Oyster Parasite Threatens Production in Florida. - Fish. Gaz., LI, 13, 11 & 27. New York (1934). **b - 2152**

Some information of the invasion in the Apalachicola Bay bed of a parasitic natural enemy of the oyster known as the wafer or « leech » and being a turbellarian flatworm, *Stylochus inimicus*. Unusually high salinity is held responsible for the spreading of the parasite.

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## *Crustacea.*

**Dewberry E.** - Habits and Haunts of Edible Crabs - Fish. News, 4-VIII-34, 22-23. Aberdeen (1934). **b - 2153**

**Fick H.** - Ueber das Auftreten der Dorngarnele in der Elbe. - Fischmarkt, II, 1, 11. Cuxhaven (1934). **b - 2154**

Notiz über das beobachtete Auftreten in den deutschen Gewässern ausser der Wollhandskrabbe, eines anderen Krebses, der Dorngarnele, welche unter den Fischern unter dem falschen Namen der ihr verwandten Ostseegarnele eingebürgert ist.

**Graef Johannes** - Die Wollhandkrabbe in der Elbemündung. - Dtsch. Fischwirtsch., I, 2, 30-31. Berlin (1934). **b - 2155**

Einige Betrachtungen über die Verbreitung der Wollhandkrabbe in der Elbe und die daraus folgende besondere Bedeutung ihrer Vernichtung in diesem Gebiete. Die notwendigen Massnahmen zur Vertilgung dieser Seuche und zur Verwertung der Fänge ; Verarbeitung der Wollhandkrabbe zu Krebserzeugnissen für menschlichen Genuss.

**Higgins Elmer** - A Story of the Shrimp Industry. 19 figs., Scient. Monthly, XXXVIII, May, 429-443. New York (1934). **b - 2156**

Beginning with some statistical notes on the ever growing shrimp industry the A. here gives an account of a research trip from New Orleans to the Gulf through Barataria Bay. Observations carried out on board : hydrologic observations, measures of length, growth rates, annual life cycle, eggs and larvae and their preservation. Fishing methods and gear. Canning processes.

**Johnson Fred F. & Lindner Milton J.** - Shrimp Industry of the South Atlantic and Gulf States, with Notes on Other Domestic and Foreign Areas. 31 figs., 22 tabl., U. S. Dpt. Comm., Bur. Fish., Invest. Rep. 21, 2-83. Washington, D. C. (1934). **b - 2157**

The shrimp industry of the South Atlantic and Gulf States : Introduction. Natural history. The shrimp fishery. Notes on the shrimp industry of other domestic areas and of foreign countries. Bibliography.

**Lombardi Dina** - Nota su alcune pesche profonde dello Ionio. - Boll. Pesca, Piscicolt. e Idrobiol., X, 2, 211-215. Roma (1934). **b - 2158**

La fauna carcinologica profonda dello Ionio presenta una notevole analogia con quella del fondo a Scampi del M. Ligure : su 12 specie di Decapodi prese in considerazione, 10 risultarono comuni ai due mari.

**Peace H. L.** - News of the Florida Shrimp Industry. 1 table, Fish & Oyster Rep., XV, 10, 10. Tampa, Fla. (1934). **b - 2159**

Information of the Florida shrimp fishing fleet ; boats under construction ; increase of the shrimp catches.

**Peace H. L.** - Crab and Shrimp Industries Are Active on the Georgia Coast. - Fish & Oyster Rep., XV, 13/14, 7. Tampa, Fla. (1934). **b - 2160**

Brief description of the actual condition of the crab and shrimp industries on the Georgia coast.

**Peace H. L.** - With Florida and South Carolina Shrimp Fleet. - Fish & Oyster Rep., XV, 13/14, 14. Tampa, Fla. (1934). **b - 2161**

Actual condition of the Carolina's shrimp fisheries and industry.

**Peace H. L.** - News of the Florida Shrimp Industry. - Fish & Oyster Rep., XVI, 2, 6 & 11. Tampa, Fla. (1934). **b - 2162**

News of the catches and the shrimp fishing fleet.

**Smith Jas. W.** - The South African Crayfish Canning Industry. - Canad. Fisherm., XXI, 9, 21-22. Gardenvale, Que. (1934). **b - 2163**

Story of the development of the canning industry of the spiny lobster or crayfish in South Africa from its beginning in 1900 and description of the canning methods employed.

**Templeman W.** - Spring, Summer and Fall Lobster Fishing in the Southern Part of the Gulf of St. Lawrence. 4 figs., 1 table., Biol. Board Canada, Bull. XLIII, 3-13. Ottawa (1934). **b - 2164**

Historical account of legal seasons in the area under consideration. Trend of lobster catch. Condition of shell. Importance of shell condition. Discussion and conclusions.

**Wille Otto** - Zur Kenntnis der Garnele und Garnelenerzeugnisse als Nahrungs- und Futtermittel. 24 Tab., Abh. Inst. f. Seefisch. 5, 5-21, Wesermünde (1930). **b - 2165**

Einleitung. Die Untersuchungsmethodik. Die chemische Zusammensetzung der Garnele und Garnelenerzeugnisse : 1) Das ganze Tier und Gammel. 2) Das Fleisch. 3) Die Schalen. 4). Krabbenextrakte. 5) Produkte der Konservenindustrie. 6) Haushaltszubereitungen.

**Ministry of Agriculture and Fisheries** - The Mitten or Chinese Crab (*Eriocheir sinensis* H.

Milne-Edwards). - Fish. Notice, 22, 1-2. London (?). **b - 2166**

Its coming in Europe from China. Its migratory habits, its ecology ; the spawning season. Many disadvantages attached to its presence.

**F.** - Die Krabben- und Wattfischerei in der Elbmündung im Jahre 1933. - Fischmarkt, II, 4, 103. Cuxhaven (1934). **b - 2167**

Einige Angaben über die Tätigkeit der Krabbenfischergenossenschaft und den Buttfang in den Watten ; die Plage der Wollhandkrabbe.

**An.** - The Lobster Industry. - Canad. Fisherm., XXI, 1, 16. Gardenvale, Que. (1934). **b - 2168**

Drop in U. S. dollar affects shipper's earnings. New size limit imposed. Restriction of the migrations of fishermen from one district to another.

**An.** - The Lobster Industry. - Canad. Fisherm., XXI, 2, 18. Gardenvale, Que. (1934). **b - 2169**

Bad conditions in January 1934 and better outlook for spring business. Inclination of Maine fishermen towards reducing their legal size to conform with those of Massachussetts and others.

**An.** - The Lobster Industry. 1 table, Canad. Fisherm., XXI, 4, 14-15. Gardenvale, Que. (1934). **b - 2170**

Account of the lobster fisheries in March, 1934 ; development of shipments of chilled lobster meat.

**An.** - The Lobster Industry. 1 table, Canad. Fisherm., XXI, 5, 15-16. Gardenvale, Que. (1934). **b - 2171**

Bad weather conditions in April. Progress with the N. R. A. code for the American Wholesale Lobster Dealers ; the new size standard. Development of the canning of lobster. Prospective effect of the Marketing Bill upon the lobster industry. The Lobster Fishery Regulations of 26th March 1934. Preliminary figures of the Canadian Lobster Catch.

**An.** - The Lobster Industry. -Canad. Fisherm., XXI, 7, 17-18. Gardenvale, Que. (1934). **b - 2172**

Demand for live Lobsters in June, 1934. Increase of the equipment of floating cars for storing live Lobsters ; statistics of the catches of lobster ; conditions of the market ; their regulations.

**An.** - The Lobster Industry. - Canad. Fisherm., XXI, 8, 14-15. Gardenvale, Que. (1934). **b - 2173**

Conditions of the lobster fishery in July 1934. Very difficult market and lobster industry conditions.

**An.** - The Lobster Industry. - Canad. Fisherm., XXI, 9, 14-15. Gardenvale, Que. (1934). **b - 2174**

Activity in canned lobster markets during August 1934 ; the catch of the late season ; uncertainty of the situation of the lobster industry ; the Newfoundland lobster pack ; marketing Boards ; their activity.

**An.** - The Lobster Industry. - Canad. Fisherm., XXI, 10, 14. Gardenvale, Que. (1934). **b - 2175**

Account of lobster catch in September 1934 which proves to be disappointing. The influence upon the canning industry.

**An.** - The Lobster Industry. - Canad. Fisherm., XXI, 11, 17. Gardenvale, Que. (1934). **b - 2176**

Account of the poor conditions of the lobster catch during autumn 1934 ; the various theories suggested as reasons for the failure in the fishery last year and confirmed in the present year. Statements concerning the development of lobster shipping and the trade of *Crustacea* in general with especial reference to the new French quota.

**An.** - The Lobster Industry. - Canad. Fisherm., XXI, 12, 17. Gardenvale, Que. (1934). **b - 2177**

Condition of the catch during November 1934 ; the trial of a size limit ; search by the Department of Fisheries for some better means of combatting the illegal catching and packing of Lobsters.

**An.** - Grosse Fänge von Nordischen Garnelen. - Fischmarkt, II, 10, 273-274. Cuxhaven (1934). **b - 2178**

Bericht, an Hand von Angaben, welche in Dansk Fiskeritidende vom 22. August 1934 veröffentlicht worden sind, über eine starke Entwicklung der Fischerei von nordischen Garnelen von Skagen aus ; Beschreibung der Fanggeräte und des Fangobjektes, mit besonderer Berücksichtigung seiner Verbreitung und seiner Bedeutung für die Konservenindustrie.

**An.** - A Modern Shrimp Plant. 7 figs., Fish. Gaz., LI, 12, 6. New York (1934). **b - 2179**

7 figures illustrating some scenes in the Thunderbolt, Ga., plant of L. P. Maggioni & Co. whose layout and equipment has already been described in the October issue of the magazine.

**An.** - Importance of Shrimp Shown by U. S. Data. - Fish & Oyster Rep., XVI, 2, 10. Tampa, Fla. (1934). **b - 2180**

Some information on the development of the shrimp fishery on hand of data published in a study issued by the U. S. Bureau of Foreign and Domestic Commerce's Bureau of Fisheries ; urgency of conservation of the shrimp.

**An.** - Die Kenntlichmachung von borsäurehaltigen Krabben und Krabbenkonserven. - Mitt. Dtsch. Seefisch.-Ver., XXXXIX, 5, 198-199. Berlin (1934). **b - 2181**

Wortlaut der Verfügung des Reichsministers des Innern über die im Titel erwähnte Kenntlichmachung.

**An.** - Lobsters. 1 table, Rep. Newfoundland Fish. Res. Comm., Ann. Rep. II, 2, 64-66. Plymouth (1934). **b - 2182**

Statistical statements showing the development of lobster catch in Newfoundland waters during 1933 and the trend of this fishery.

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## *Balaenae, Delphini, Phocae, etc.*

**Aagaard Bjarne** - Den Gamle Hvalfangst : Kapitler av dens Historie. ills., maps., 166 pp., Gyldendals Norsk Forlag. Oslo (1933). **b - 2183**

History of whaling and description of its development in the XIVth, XVIth, XVIIth, XVIIIth centuries as well as its actual conditions. The author deals also with the development of the different methods of catch, the finance of whaling, the subsidiary industries, such as sealing, ship-building, sail-making. The work is illustrated by reproductions of old engravings and maps.

**Hjort J.** - Whales and the Fear of Extinction. - Fish. News, 14-IV-34, 16. Aberdeen (1934). **b - 2184**

**Hjort J., Lie J. & Ruud Joh. T.** - Pelagic Whaling in the Antarctic. IV. The Season 1933-1934. 10 figs., 7 tabl., 3 pl., Hvalraad. Skr., Scient. Results Mar. Biol. Res., 9, 5-38 & 43-59. Oslo (1934). **b - 2185**

Introduction. Analysis of the material. Whaling grounds. The monthly catches. Catches in the different areas. Composition of the stock of Whales. On the occurrence of Whales in the different parts of the Antarctic Ocean. Discussion.

**Ommanney F. D.** - Whaling in the Dominion of New Zealand. 3 pl., Discovery Rep. (Govmt. Depend. Falkland Isls.), 239-252. Univ. Press. Cambridge (1933). **b - 2186**

**Steinert Hermann** - Walfang und-forschung in der Antarktis. - Geogr. Ztschr., 3, 155-163. Leipzig (1933). **b - 2187**

**Townsend C. A.** - The Newfoundland Seal Fishery. - Science, LXXX, 2074, 289. New York (1934). **b - 2188**

Official records of the catch of the Newfoundland seal fishery for over a hundred years show that the fishery has not declined to a serious extent, as is stated by the Secretary of the Society for the preservation of the fauna of the Empire.

**Eh.** - Wale und Walfang. - Fischmarkt, II, 1, 17-23. Cuxhaven (1934). **b - 2189**

Unter dem Titel « Whales and Whaling » hat der bekannte norwegische Meeresforscher Professor Dr. Johann Hjort, Oslo in « Hvalraadets Skrifter », n° 7, 1933 eine kurze, aber sehr interessante Schilderung der Geschichte des Walfanges und der neueren Untersuchungen über die Biologie der Wale veröffentlicht, aus deren Inhalt in den vorliegenden Ausführungen einiges wiedergegeben ist.

**Sdt. E. (Steinerdt)** - Walfang. 4 Tab., Fischmarkt, II, 8, 211-215. Cuxhaven (1934). **b - 2190**

Statistische Angaben über den Walfang an Hand der neuen Ausgabe des « Hvalfangerregister », mit besonderer Berücksichtigung der Zahl der Walfangdampfer der verschiedenen am Walfange beteiligten Länder, der aktiven Walfangreedereien mit Angaben des Fangmaterials, der Entwicklung des Walfanges (1909-1932), die Walfangergebnisse Norwegens und der einzelnen Fangfelder.

**Stt.** - Weitere Beschränkung des Walfanges. - Fischmarkt, II, 4, 102-103. Cushaven (1934). **b - 2191**

Ungünstige Lage des Walfischfanges ; der Entschluss von norwegischen und englischen Walfanggesellschaften betreffs einer weiteren Beschränkung des Walfischfanges ; einige Angaben über die in 1934 vorgesehene Ausbeute ; keine vorläufige Besserung der Lage.

**An.** - Der Walfang 1932/33. 1 Tab., Fischmarkt, II, 7, 189-190. Cuxhaven (1934). **b - 2192**

Statistische Angaben an Hand der Statistischen Uebersicht ausgegeben vom Komitee für Walfang-Statistik bei der norwegischen Regierung, für die Fangzeit 1932/33 und Sommer 1934.

**An.** - Die Seehundsjagd bei Neufundland. - Fischmarkt, II, 7, 191-192. Cuxhaven (1934). **b - 2193**

Bericht über die gegenwärtigen Verhältnisse der Seehundsjagd bei Neufundland an Hand von in der « Times » veröffentlichten und der « Fish Trade Gazette » entnommenen Daten.

**An.** - Antarctic Whaling Season, 1932-33. - Polar Rec., 5, 56. Cambridge (1933). **b - 2194**

Summary of the situation in the whaling industry, whose activity is limited by the quota agreement described in « Polar Record », n° 4.

**An.** - Antarctic Whaling Season, 1932-33. - Polar Rec., 6, 127. Cambridge (1933). **b - 2195**

Summary of the situation in the whaling industry at the end of the season 1932-33 : considerable decline in the stock of Whales especially in the western area.

**An.** - Antarctic Whaling. 1 table, Polar Rec., 7, 88-89. Cambridge (1934). **b - 2196**

(1) Season 1932-33. (2) Season 1933-34. Table containing statements on the floating factory expeditions operating in the Antarctic, 1932-33.

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## *Plantae marinae.*

**Burgwitz G.** - Ueber Verwertung von Meeresalgen zur Gewinnung von Hefen und Alkohol (Russ. Text, dtsch. Rés.). 4 Taf., Bull. Acad. Sc., U. R. S. S., Cl. Sc., Mathém. & Natur., 6, 837-848. Léningrad (1933). **b - 2197**

Ergebnisse einer neuen Untersuchung über die Alkoholgewinnung aus Meeresalgen durch Gärung derselben. Die Versuche sind mit *Laminariae* und *Alariae* von der Murmansküste ausgeführt worden.

**Fujikawa Kiyoshi & Kashiwada Ken'ichi** - Color of « Asakusa-nori » in Relation to Chlorophyl Content. (In Jap., Engl. Rés.). 4 tabl., 1 diagr., Journ. Jap. Soc. Scient. Fish., II, 4, 159-161. Tokyo (1933). **b - 2198**

The dried commercial preparation of the marine Alga, *Porphyra tenera*, known by the name of « Asakusa-nori » in Japan is widely consumed as food over here. It is graded on the market according to its color, lustre, taste, flavor and form. The chemical analysis of the AA. has shown in the material from Corea that the grading by the color is given in terms of relative amount of chlorophyl in the preparation.

**Koudrjavtzev V. I.** - Sur la question de l'utilisation des Algues marines à l'aide de microorganismes (En russe, rés. allem.) - Bull. de la filiale de l'Extrême Orient de l'Acad. Sc., U. R. S. S., 1/2/3, 99-108. Vladivostok (1933). **b - 2199**

**Treumann I.** - Agar-agar aus den Rotalgen des Küstengebietes des Fernen Ostens (Russ. Text, Dtsch. Rés.). - 1 Tab., Bull. Far East. Branch Acad. Sc., U. S. S. R., 1/2/3, 109-114. Vladivostok (1933). **b - 2200**

Nach Untersuchungen einer ganzen Reihe von Algen ist es dem Institut endlich gelungen in der Rotalge *Ahnfeltia plicata* ein allen Anforderungen für eine wirtschaftlich vorteilhafte Bereitung von Agar Agar entsprechendes Material zu finden. Verbreitung, Produktion und Bereitungsmethode.

**B. Tsch.** - Les Algues marines pour l'alimentation du bétail (En russe). - Sov. Sever., 6, 92-93. Moskva (1933). **b - 2201**

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Ministère de la Marine Marchande : b - 1861
Ministero dell'Aeronautica - Ufficio Presagi : a - 1652
Ministero dell'Agricoltura e delle Foreste - Divisione pesca : b - 1654, 1703
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## VOLUMEN VIII

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# ABBREVIATIONES

**a.** - annus, anno, année, an, año
**Aardr.** - Aardrijkskundig
**Abb.** - Abbildungen
**Abh.** - Abhandlung(en)
**Abt.** - Abteilung
**Acad.** - Academia, Académie, Academy
**Accad.** - Accademia
**Akad.** - Akademia, Akademie, Akademi, Akademiia; Akademische
**Algol.** - Algologique
**Amer.** - America; American, Americano
**Anat.** - Anatomia, Anatomie, Anatomy; Anatomico(a), Anatomique, Anatomical, Anatomisch
**Ann.** - Annales, Annali, Annals, Annaler, Annalen, Anais, Analele; Annuel, Annual
**Annot.** - Annotationes, Annotations
**Annu.** - Annuario, Annuaire
**Anu.** - Anuario
**Anz.** - Anzeiger
**App.** - Appendice, Appendix
**Aquic.** - Aquiculture
**Arb.** - Arbok
**Arbeit.** - Arbeit(en)
**Arch.** - Archivium , Archivio, Archive(s), Archiv, Archivo
**Arct.** - Arctic
**Ark.** - Arkiv(et)
**Arsb.** - Arsbok
**Arsber.** - Arsberetning
**Ass.** - Associazione, Association
**Astron.** - Astronomia, Astronomie, Astronomy; Astronomico(a), Astronomique, Astronomical, Astronomisch
**Austr.** - Australian
**Avd.** - Avdelning

**Bacteriol.** - Bacteriology, Bacteriologie; Bacteriological, Bacteriologisch
**Bacteriol.** - Bactériologie; Bactériologique
**Batteriol.** - Batteriologia; Batteriologico(a)
**Bd.** - Board
**Begr.** - Begründet
**Beitr.** - Beitrag, Beiträge
**Ber.** - Bericht(e)
**Biol.** - Biologia, Biologie, Biology; Biologico(a), Biologique, Biological, Biologisch, Biologisk
**Bl.** - Blatt, Blätter
**Bol.** - Boletim, Boletin
**Boll.** - Bollettino
**Bot.** - Botanica, Botanique, Botany, Botanik; Botanical, Botanisch, Botanisk
**Brit.** - Britain; British
**Bul.** - Buletin, Buletinul
**Bull.** - Bulletin, Bulletijn, Bulletino
**Bur.** - Bureau
**Calif.** - California
**Camp.** - Campagnes

**Canad.** - Canadian
**Cat.** - Catalana
**Centr.** - Centrale, Central(e)
**Chem.** - Chemistry; Chemical
**Choz.** - Chozjajstvo
**Cienc.** - Ciencias
**Circ.** - Circulaire, Circular
**Cl.** - Classe
**Col.** - Colonie, Colony; Colonial(e)
**Coll.** - Collegio, Collège, College
**Com.** - Commerce, Comercio; Commerciale, Commercial, Comercial.
**Comit.** - Comitato
**Comm.** - Committee, Commission
**Commiss.** - Commissioner
**Comp.** - Comparata, Comparée, Comparative
**Conf.** - Conferentia, Conferenza, Conférence, Conference
**Congr.** - Congresso, Congrès, Congress, Congreso
**Cons.** - Consiglio, Conseil
**Contr.** - Contribution(s)
**Corr.** - Corriere
**C. R.** - Compte(s) Rendu(s)
**Cult.** - Cultura

**Dir.** - Direction, Directorate
**Div.** - Divisione, Division
**Dpt.** - Department
**Dtsch.** - Deutsch

**Econ.** - Economia, Economic, Economy
**Ed.** - Editore, Editeur, Editor
**Engl.** - English
**Eng.** - Engineer; Engineering
**Entomol.** - Entomology
**Erdk.** - Erdkunde
**Ergebn.** - Ergebnisse
**Españ.** - Español (a)
**Exp.** - Experimentalis, Expérimentale, Experimental
**Exped.** - Expedition(s)
**Expéd.** - Expédition(s)
**Expl.** - Exploration(s)

**Fac.** - Facoltà, Faculté, Faculty
**Fenn.** - Fennica
**Fig.** - Figura(e)
**Fis.** - Fisica, Fisiche, Fisicas
**Fisch.** - Fischerei
**Fischerb.** - Fischerbote
**Fischereibl.** - Fischereiblatt
**Fischwirt.** - Fischwirtschaft
**Fish.** - Fishery, Fisheries; Fishing
**Fisher.** - Fisherman
**Fisiol.** - Fisiologia; Fisiologico(a)
**Fisk.** - Fiskeri
**Fol.** - Folia
**Forh.** - Forhandlinger
**Forh.** - Förhandlingar
**Forsch.** - Forschung(en)
**Fragm.** - Fragmenta
**Franc.** - Français

**Gaz.** - Gazette
**Gen.** - Generale, General: Genootschap
**Gén.** - Général
**Geod.** - Geodesia, Geodesy, Geodäsie; Geodetico, Geodetical, Geodätisch
**Géod.** - Géodésie; Géodésique
**Geof.** - Geofisica, Geofisico
**Geogr.** - Geographia, Geografia, Geography, Geographie, Geografiia; Geografico(a), Geographical, Geographisch, Geografisk, Geograficeskii
**Géogr.** - Géographie; Géographique
**Geol.** - Geologia, Geology, Geologie, Geologîia; Geologico(a), Geological, Geologisch, Geologiskîi
**Géol.** - Géologie; Géologique
**Geoph.** - Geophysics; Geophysic(al), Geophysisch
**Geoph.** - Géophysique
**Ges.** - Gesellschaft
**Gesch.** - Geschichte; Geschichtlich
**Giorn.** - Giornale
**Govmt.** - Government

**Handb.** - Handbuch
**Handl.** - Handlingar
**Hidrogr.** - Hidrografinen
**Hist.** - Historia, Histoire, History; Historique, Historical, Historisch
**Histol.** - Histologie, Histology; Histologique, Histological, Histologisch
**Hrsg.** - Herausgegeben
**h. t.** - hors texte
**Hydrobiol.** - Hydrobiologie; Hydrobiologica, Hydrobiologique
**Hydrogr.** - Hydrographie, Hydrography; Hydrographique, Hydrographic(al), Hydrographisch
**Hydrol.** - Hydrologie, Hydrology; Hydrologique, Hydrologic(al), Hydrologisch

**Ichtyol.** - Ichtyologie, Ichtyology; Ichtyologique, Ichtyological, Ichtyologisch
**Idrobiol.** - Idrobiologia; Idrobiologico(a)
**Ill.** - Illustrazione, Illustration(s)
**Imp.** - Imperial, Impérial
**Impr.** - Imprimerie
**Ind.** - Industria, Industrie, Industry; Industriale, Industriel(le), Industrial, Industriell
**Inst.** - Institut, Institute, Instituto, Instituut, Institutt
**Instit.** - Institution
**Int.** - Internazionale, International(e)
**Invest.** - Investigation(s)
**Ist.** - Istituto
**Istol.** - Istologia; Istologico(a)
**It.** - Italia; Italica, Italiano(a)
**Ittiol.** - Ittiologia; Ittiologico(a)
**Izv.** - Izvêstîia

**Jahresber.** - Jahresbericht(e)
**Jap.** - Japonica, Japonenses, Japonaise, Japanese
**Journ.** - Journal

**Kgl.** - Kongelig
**Kl.** - Klasse
**Kol.** - Kolonie; Kolonial
**Komm.** - Kommission
**Kon.** - Koninklik
**Königl.** - Königlich
**Kungl.** - Kunglig

**Labor.** – Laboratorium, Laboratorio, Laboratoire, Laboratory
**Lám.** - Lámina(s)
**Lett.** - Lettere, Lettres
**Linn.** - Linnéen(ne), Linnean

**Mag.** - Magazin, Magazine
**Malacol.** - Malacologia, Malacologie, Malacology; Malacologico(a), Malacologique, Malacological
**Mar.** - Marina(o), Marine, Marinara
**Marit.** - Maritime
**Maritt.** - Marittimo(a)
**Matem.** - Matematica
**Mathem.** - Mathematics, Mathematik, Mathematic(al), Mathematisch
**Mathém.** - Mathématique
**Med.** - Medicina, Medicine, Medizin; Medico(a), Medical, Médizinisch
**Méd.** - Médecine; Médical(e)
**Medd.** - Meddelanden, Meddelelser
**Meded.** - Mededeelingen
**Mem.** - Memoranda, Memoria(e), Memoirs, Memorial, Memorias
**Mém.** - Mémoire(s)
**Meteorol.** - Meteorologia, Meteorology Meteorologie, Meteorologîia; Meteorologico(a), Meteorological, Meteorologisch, Meteorologisk, Meteorologiceskîi
**Météorol.** - Météorologie; Météorologique(s)
**Microsc.** - Microscopie; Microscopique, Microscopical
**Mikrosk.** - Mikroskopisch
**Minist.** - Ministero, Ministère, Ministry, Ministerium
**Miscell.** - Miscellaneous
**Mitt.** - Mitteilung(en)
**Mus.** - Museo, Muséum, Musée, Museum, Museu

**N.** - Nuovo, nouveau, new, neu.
**Nac.** - Nacional
**Nachr.** - Nachricht(en)
**Nat.** - National(e)
**Natur.** - Naturale, Naturel(le), Natural, Naturales
**Natural.** - Naturaliste, Naturalist
**Naturhist.** - Naturhistorisch, Naturhistorisk
**Naturv.** - Naturvidenskabelig, Naturvetensskaplig
**Naturwiss.** - Naturwissenschaft(en); Naturwissenschaftlich
**Naut.** - Nautico(a), Nautique, Nautical, Nautisch, Nautisk
**Naz.** - Nazionale
**Ned.** - Nederland, Nederländisch, Nederlandsch
**Néerl.** - Néerlandais(e)
**Norw.** - Norwegian
**Novit.** - Novitates

**Obs.** - Observatoire, Observatory, Observer, Observatorium, Observatorio
**Occas.** - Occasional
**Oceanogr.** - Oceanografia, Oceanography; Oceanographica, Oceanografico(a), Oceanographic(al), Oceanograficeskij
**Océanogr.** - Océanographie; Océanographique
**Oesterr.** - Oesterreich; Oesterreichisch
**Off.** - Office; Officiel(le), Official, Offisiell
**Osserv.** - Osservatorio

**Palaeobiol.** - Palaeobiologia, Palaeobiologie; Palaeobiologica, Palaeobiologisch
**Palaeontogr.** - Palaeontographia, Palaeontographie
**Palaeontol.** - Palaeontologia, Palaeontologie; Palaeontologisch
**Paleontol.** - Paleontologia, Paleontology; Paleontologico(a), Paleontological
**Paléontol.** - Paléontologie; Paléontologique
**Parasitol.** - Parasitologie, Parasitology
**Parassitol.** - Parassitologia
**Pathol.** - Pathologie, Pathology; Pathologique, Pathological
**Pêch.** - Pêcheries
**Perm.** - Permanent(e)
**Pescher.** - Peschereccio
**Philipp.** - Philippine
**Phys.** - Physique, Physics, Physik; Physical, Physisch
**Physiol.** - Physiologia, Physiologie, Physiology; Physiologique, Physiological, Physiologisch
**Piscicult.** - Piscicultura, Pisciculture
**pl.** - planche, plate
**Pol.** - Polonais(e), Polish, Polisch
**Pont.** - Pontificia
**pp.** - pagine, pages
**Proc.** - Proceedings
**Profess.** - Professionale, Professionnel, Professional
**Protistenk.** - Protistenkunde
**Protistol.** - Protistologia, Protistologie, Protistology
**Pr.-Verb.** - Procès-Verbal (Verbaux)
**Pubbl.** - Publicazioni
**Publ.** - Publication

**Quart.** - Quarterly

**R.** - Reale, Regia, Royal(e)
**r.** - rekke
**Rapp.** – Rapporto, Rapport
**Rass.** - Rassegna
**Rec.** - Record(s)
**Rech.** - Recherches
**Rend.** - Rendiconto(i)
**Rep.** - Report(s)
**Res.** - Results
**Rés.** - Résumé
**Résult.** - Résultats
**Resúm.** - Résúmenes
**Rev.** - Revue, Review, Revista
**Ric.** - Ricerca
**Riun.** - Riunione
**Riv.** - Rivista
**Russ.** - Russian, Russisch

**S.** – Seite
**S** - South
**Sällsk.** - Sällskap
**Sc.** - Scientia, Scienza(e), Science(s
**Scient.** - Scientifico, Scientifiq Scientific
**Selsk.** - Selskab
**Senckenb.** - Senckenbergish
**Ser.** - Serie
**Sér.** - Série
**Sitz.-ber.** - Sitzungsbericht(e)
**Skr.** - Skrift(er)
**Smiths.** - Smithsoni an
**Soc.** - Societas, Società, Société, S ciety, Sociedad, Sociedade, S cietatia
**Sper.** - Sperimentale
**Stat.** - Station(s), Stationary
**Statist.** - Statistica, Statistics, St tistik; Statistique, Statistica Statistisch, Statisticeskîi, St tistisch, Statisticeskii, Statistik
**Staz.** - Stazione
**Suppl.** - Supplemento, Supplément Supplement

**Tabl.** - Table(s), Tableaux
**Taf.** - Tafel(n)
**Talassogr.** - Talassografico
**Tav.** - Tavole
**Techn.** - Techniques(), Technical
**Thalassogr.** - Thalassographique
**Tidskr.** - Tidskrift
**Tijdschr.** - Tijdschrift
**Trab.** - Trabajos
**Trans.** - Transactions
**Trav.** - Travail, Travaux

**Univ.** - Universitas, Università, Un versité, University, Universität Universidad, Universidade, Universitet
**Unters.** - Untersuchungen
**U. S.** –United States

**Ver.** - Verein
**Verh.** - Verhandelingen, Verhandlungen
**Veröff.** - Veröffentlichungen
**Vet.** – Vetenskap, vetenskaplig
**Vgl.** - Vergleichende
**Vidensk.** - Videnskabelig

**Wetensch.** - Wetenschap; Wetenschappelijk
**Wirtsch.** - Wirtschaft
**Wiss.** - Wissenschaften, Wissenschaftlich

**Zap.** - Zapiski
**Zool.** - Zoologia, Zoologie, Zoology Zoològica, Zoologique, Zoological, Zoologisch, Zoologiceski
**Ztg.** - Zeitung
**Ztrbl.** - Zentralblatt
**Ztschr.** - Zeitschrift

(—) - Dello stesso autore, Du même auteur, Of the same author, Von demselben Verfasser, Del mismo autor etc.

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*Signalationes maritimae (fixae, fluctuantes, luminosae et per radio, sonorae et ultrasonorae) – Libri pharorum, lanternarum, signalationum – Communicationes* . » 24

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Varia

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Generalia

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Chemia et Physica Maris

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Procreatio

*Maturitas sexualis – Cellulae sexuales – Physiologia fecundationis – Caracteres sexuales secundarii – Genetica* . . . » 164

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# I.

# GENERALIA NAVIGATIO

## Navigationis historia - Itinera.

**Almagià Guido** - Sommario esame delle operazioni navali sulle guerre napoleoniche [*Compendium de proeliis navalibus bello Napoleonico perdurante*]. Riv. Cult. Mar., X, 7/8, 45-56. Roma (1935). **a - 1**

**Almeida (de) Joao** - Notas à margem sobre a descoberta do Brasil [*De inventa Brasilia. Notae marginales*] (Av. rés. franç.). Bol. Soc. Geogr., Maio-Out., 51 Ser., 35-37. Lisboa (1933). **a - 2**

Discussion du problème débattu de la découverte du Brésil par Pedro Alvares Cabral; exploration de la côte brésilienne par les Portugais avant la découverte « officielle » de ce pays par Cabral; rapprochement entre la découverte du Brésil et celle de l'Amérique par Colomb qui aurait été instruit dans les secrets de la navigation atlantique par les Portugais.

**Anderson R. C.** - The Royalists at Sea, 1651-1653 [*De regis fautoribus eorumque activitate maritima 1651-1653*]. Mar. Mirr., XXI, 1, 61-90. London (1935). **a - 3**

In addition to the description already published at some length in Mar. Mirr. (IX, p. 34; XIV, p. 320; XVII, p. 135) of the operations of the Royalist fleet and of the Parliamentary forces opposed to it during the years 1648, 1649 and 1650, in the present paper are followed the fortunes of Prince Rupert's command from its leaving Toulon in 1651 to the arrival of its last surviving ship at Nantes in 1653.

**Anger H.** - Rätebund. Neue Forschung im Felde [*Respublica Sovietica. Inquisitiones novae. Navigationes scientiae causa susceptae*]. Peterm. Mitt., LXXX, 3, 88. Gotha (1934). **a - 4**

Kurze Notiz (der Sowjetskij sewer Nr. 5, 1933, Moskau, entnommen) über den ersten erfolgreichen Versuch, Waren auf dem nördlichen Seewege von Archangel nach dem Lena-Delta zu befördern.

**Austen H. C. M.** - Sea Fights and Corsairs of the Indian Ocean. Being the Naval History of Mauritius from 1715 to 1810 [*De proeliis navalibus deque piratis ad Oceanum Indianum pertinentibus. Historia navalis insulae Mauritii ab a. 1715 ad a. 1810*]. R. W. Brooks. Govmt. Print. Port Louis, Mauritius (1934). **a - 5**

**Balbo Italo** - Croisière sur l'Atlantique [*De navigatione quadam speculatoria per Oceanum Atlanticum*]. 46 pl., 1 carte, 269 pp., Plon, Paris (1934). **a - 6**

Traduction française du journal de bord d'une escadre de vingt-quatre avions menant à bien un vol en masse de 20.000 kilomètres.

**Ballard G. A.** - The Three British Armoured Corvettes [*Tres corbitae Anglicae armis instructae*]. 6 pls., 3 diagrs. Mar. Mirr., XXI, 1, 12-30. London (1935). **a - 7**

Description of three armoured ships of comparatively small displacement, the « Favorite », « Pallas », and « Penelope », which practically had nothing in common with each other except a kind of third-grade tonnage, and not even that in common with their very numerous unarmoured contemporaries classified as corvettes, but represent the only case in which the term « armoured corvette » was used in British service. The ships have been built in 1860-1870.

**Bank S.** - Le dernier port. Le « Tchéljouskine » à Mourmansk [*Portus extremus. Agitur de navi* « Tscheljuskin » *in* Murmansk].( En russe). 4 fig., Karelo-Mourm. Kraj, 3/4, 8-9. Leningrad (1934). **a - 8**

**Baratta M.** - Il porto di Pompei [*Portus Pompejanus*]. Athenaeum, XI, 250-260. Pavia (1933). **a - 9**

**Barents W.**, übers. v. **Schoenborn (von) E.** - Die Reisen des Wilhelm Barents zur Entdeckung der nordöstlichen Durchfahrt in den Jahren 1594-97 [*De navigationibus a Guilielmo* Barents *peractis ad inveniendum transitum nord-occidentalem a. 1594/97*]. 140 S., Becker Verl. Würzburg (1934). **a - 10**

Uebersetzt und bearbeitet aus dem französischen von E. Grafen von Schönborn.

**Barlow Nora** - Charles Darwin's Diary of the Voyage of H. M. S. « Beagle », Edited from the MS. by. . . [*Caroli* Darwin *diarium de navigatione peracta regia navi* « Beagle » *nomine. Editum a manuscripto. . .*]. Ills., maps. xxx + 452 pp., Univ. Press. Cambridge (1933). **a - 11**

The diary printed is contained in eighteen little pocket books, of which a typewritten copy was made in 1891 by the late Mr. Horace Darwin, and it is from this and from the original that the present volume has been prepared by Mrs Barlow, a daughter of Mr. Horace Darwin. It represents a record of Charles Darwin's daily life on board the « Beagle » and of his land excursions and illustrates the terrible discomforts of such a voyage a hundred year ago.

**Bertacchi Cosimo** - Ancora delle antiche misure della terra in relazione alla scoperta di Colombo [*De veterrimis Terrae mensuris quoad inventionem Columbianam*]. Universo, XV, 10, 865–867. Firenze (1934). **a - 12**

L'A. prendendo lo spunto da un breve studio pubblicato recentemente ne « L'Universo », cita misurazioni fatte dai greci e le ammesse corrispondenti lunghezze lineari

del nostro sistema. Tratta poi dell'importante misura araba proponendo lo studio dei diversi valori lineari attribuiti al miglio arabo. Conclude infine che l'incosciente sostituzione di valori arbitrari all'unità lineare araba diede occasione all'inattesa scoperta, da parte di C. Colombo, di un continente nuovo.

**Bistrup H. A. Q.** - Katalog over Litteratur vedrørende Polaromraadenes og Verdenshavenes Opdagelse og Udforskning, Hval - og Sælfangst, Personalhistoria, Tidskrifter, Aarsskrifter og andre Periodica [*Elenchus rerum quae ad inventiones et inquisitiones regionum polo proximarum pertinent. Elenchus extenditur ad balaenarum et phocarum capturam, ad exploratorum historiam, ad ephemerides, annales, periodicasque publicationes*]. 390 pp., Levin & Munksgaard. København (1933). **a - 13**

**Boulenger Jacques** publ. par . . . - Voyages et aventures de François Leguat en deux îles désertes (1690–1698) [*De Francisci* Leguat *navigationibus et fortunis maritimis in duabus quibusdam insulis desertis* (*1690/1698*)]. 234 pp., Plon, Paris (1934). **a - 14**

Histoires, voyages et aventures de dix protestants qui, lors de la Révocation de l'Edit de Nantes, émigrèrent à l'étranger et, secourus par le Marquis de Duquesne réfugié en Hollande, consentirent à aller coloniser une des Mascareignes, l'île Rodrigues.

**Brander J.** - Het eiland Jan Mayen en de overwintering aldaar van 1633-1634 [*De hiemali mora in insula* Jan Mayen *ab a. 1633 ad a. 1634*]. Pl., carte, 103 pp., Ed. par « Histor. Genootsch. Oud-Westfriesland ». Hoorn (1934). **a - 15**

**Breitfuss Leonid** - Das katastrophale Ende der Driftfahrt des Eisbrechers « Tscheljuskin » [*Calamitosus exitus navigationis navi glacieiruptrici nomine* « Celjuskin » *susceptae*]. Peterm. Mitt., LXXX, 3, 87. Gotha (1934). **a - 16**

Ausrüstung, Reisebeschreibung, gegenwärtige Lage.

**Broek D'Obrenan Charlie (van den)** - Voyage aux Iles Galapagos [*De navigatione ad insulas* Galapagos]. 1 carte, 6 photos, Géogr., Terre, Air, Mer, LXIII, 1, 1-19. Paris (1935). **a - 17**

Après quelques brèves remarques concernant l'histoire de la découverte des Iles de Galapagos, les essais de leur colonisation et la composition de l'Archipel, l'A. décrit une visite qu'il a faite à ces îles au cours du voyage de circumnavigation de « la Korrigane » en juillet 1934 avec référence à la richesse de la flore et de la faune marine et terrestre de l'Archipel.

**Burpee Lawrence J.** - John Cabot, who sought Cipangu [*De Johanne* Cabot *qui* Cipangu *quaesivit*]. Figs., Canad. Geogr. Journ., VI, 259-267. Montreal (1933). **a - 18**

**Busch Fritz Otto & Docter Heinz** - Germanische Seefahrt [*Historia navigationum Germanicarum*]. Zahlr. Abb. Brunnen-Verlag, Welli Bischoff. Berlin (1934). **a - 19**

Deutsche Archäologie der Wikinger.

**Cabruja J.** - El barco en la Historia [*Navis apud historiam*]. Rev. Soc. Geogr. Cuba, VII, 1-2. La Habana (1934). **a - 20**

**Chakhovskaja N. D.** - Le dernier voyage du capitaine Scott [*De cap.* Scott *eiusque postrema navigatione*]. (En russe). Ill. 197 + 3 pp., Posrednik. Moskva (1934). **a - 21**

**Chappell Edwin**, Transcr., Edit. & Collat. by. . . - The Tangiers Papers of Samuel Pepys [*Documenta Tingitana ad Samuelem* Pepys *pertinentia*]. Navy Rec. Soc. Publ., LXXIII. London (1935). **a - 22**

The present volume is divided into five parts, three of which are of special interest to naval readers. The volume represents a vivid picture of the life of British Navy in the days of Pepys and an interesting account of the historic incident in which he played such an important rôle.

**Charcot J.** - Voyages aux Iles Feroë [*De navigationibus ad insulas* Feroë]. Fig., 95 pp., Soc. Edit. Géogr. Paris (1934). **a - 23**

Récits de voyages échelonnés sur 30 années, contenant la description de l'archipel et de son évolution au cours de l'époque considérée.

**Charcot J.** - Dans l'Antarctique [*De navigationibus per regiones Antarctidis*]. Géogr., Terre, Air, Mer, LXIII, 3, 238. Paris (1935). **a - 24**

Episode de collaboration anglo-française dans la découverte et l'exploration dans la région antarctique.

**Charine G.** - La campagne du « Tchéljouskine » [*De navigatione, navi* « Tscheljuskin » *peracta*]. (En russe). 1 fig., Izv. Goss. Gheogr. Obstch., LXVI, 2, 329-331. Leningrad (1934). **a - 25**

**Chatterton E. Keble** - To the Mediterranean in « Charmina » [*De navigatione ad Mare Mediterraneum versus, navi peracta* « Charmina » *nomine*]. Ills., sketch-map. xii + 240 pp., Rich & Cowan. London (1934). **a - 26**

Description of the voyage of the « Charmina », a beautiful 6-ton auxiliary yawl, from the Atlantic coast of Brittany south to the Gironde, and thence by the Canal de la Garonne and the Canal du Midi to Sète on the Gulf of Lyons, with a final coastwise passage to Toulon. The author's main purpose is to provide a detailed guide to others who may follow the same track.

**Chokaljskij J.** - Peary et la découverte du Pôle Nord le 9 avril 1909 [*Agitur de* Peary *deque Polo invento die 9 Aprilis 1909*]. (En russe). Meteor. Vestn., 4/7, 154-156. Leningrad (1934). **a - 27**

**Coutinho Gago** - Gaspar Côrte–Real (av. rés. franc.). 2 fig., Bol. Soc. Geogr., Nov. e Dez., 3-20. Lisboa (1934). **a - 28**

Résumé des études de l'Amiral Coutinho, héros de la première traversée aérienne de l'Atlantique Sud, sur les expéditions de Côrte-Real, démontrant sur la base d'une vaste documentation, que toute la côte américaine, de la Floride au Groenland, a été découverte par Gaspar Côrte-Real. Une mention spéciale est faite dans le but de démontrer la priorité des Portugais dans la découverte de l'Amérique, du voyage effectué à ce qu'il paraît par Joao Vaz Côrte-Real à la Terre des Morues (Terre-Neuve) en 1474, c.-à-d. avant l'expédition de Colomb.

**Cresswell M.** - Notes on the History and Development of Navigation [*De historia et progressibus artis navigandi*]. 1 chart. Mar. Obs., XII, 117, 12-14. London (1935). **a - 29**

Part I: Historical, Voyages, Discoveries and Development. Brief account of the development of shipping from the voyages of the Phoeniceans, the epoch-making voyages of Columbus, Vasco de Gama and Magellan, followed by the efforts of Drake, Dampie, Cook and others which were completed by the construction of the Suez and Panama Canals. (To be continued).

**Crouse N. M.** - The Search for the Northwest Passage [*De indagato transitu nordoccidentali*]. Ills., 533 pp.. Columbia (1935). **a - 30**

Description of the preliminary voyages in search for the Northwest Passage. Account of the attempts of Arctic explorers to penetrate the ice barrier and narrative of the successful voyage of Amundsen in 1905.

**Curtis C. D.** - Blake and Vendôme. [Blake *et* Vendôme]. Mar. Mirr., XXI, 1, 56-60. London (1935). **a - 31**

Full English translation of the letters included by Guizot as Appendix XX to volume one of the « History of Oliver Cromwell and the English Commonwealth » giving a full description of Blake's attack on the French squadron, published in reply to the Rev. J. R. Powell's Query n/31 in the October, 1932, issue of « The Mar. Mirr. ».

**Czibulcha (von) Alfons** - Berühmte Weltfahrer. Von Marco Polo bis Sven Hedin [*Totius mundi preclari exploratores. A Marco* Polo *ad* Sven Hedin]. 330 S. Berlin (1933). **a - 32**

**Danjskij R.** - Les vainqueurs de l'Arctique. La campagne héroïque du « Tchéljouskine » [*De navigatoribus qui asperitates Arctidis superaverunt. Agitur de heroica navigatione navi peracta nomine* « Tscheljuskin »]. (Deux édit., en russe et ukranien.). Ill. 82+79 pp., Oukr. Rob.. Kharjkov (1934). **a - 33**

**Delage Edmond** - La guerre sous les mers [*Bellum submarinum*]. Bernard Grasset. Paris (1934). **a - 34**

Histoire de la guerre sous-marine au cours du dernier conflit mondial. Illustrations et descriptions de beaucoup de points et aspects importants et pourtant souvent inconnus, de la guerre sous-marine.

**Delage Edmond** - Images Maritimes [*Expositio picturarum maritimarum*]. Temps, Feuilleton, 19 Janv. Paris (1935). **a - 35**

Chronique de récentes expositions maritimes et de quelque publication, à savoir: l'encyclopédie de l'Illustration qui vient de paraître, à caractère marin et artistique. Quelques idées générales sur l'histoire de la navigation.

**Denucé J.** - De Molukken in de Spaansch - Portugeesche ontdekkingsgeschiedenis [*Insulae Moluccae apud historiam inventionum geographicarum hispanicarum et lusitanarum*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LII, 3, 449. Leiden (1935). **a - 36**

Ueber den Namen Molukken. Historische Daten von 1494-1529. Vorlesung mit Lichtbildern gehalten in Rotterdam den 9. April 1935.

**Derjoughine K. M.** - Exploration des mers de l'URSS au point de vue biographique pendant les derniers 15 ans [*De exploratis maribus ad Rempublicam Sovieticam pertinentibus ex biographia exploratorum annum iam quintum decimum*]. (En russe). Troudy 1º Vses. Gheogr. Sjezda (11-18 avr. 1933), 2, 36-45, Soc. Géogr. Etat. Léningrad (1934). **a - 37**

Données sur les explorations de la mer de Barents, la mer de Kara et la mer de Bering.

**Djakonov M. A.** - Quatre mille milles sur le « Sibirjakov » [*De navigatione navis* « Sibirjakow » *quatuor milia milia passuum*]. (En russe). Dess. de L. Kantorovitch., 60 pp. Ed. Soc. Ecriv. Léningrad (1934). **a - 38**

**Djakonov M. A.** - Vingt-cinq ans depuis la découverte du Pôle Nord [*De inventione Poli Nordici vigesimo quinto recurrente anno*]. (En russe). 4 fig., Vestn. Znan., 5, 291-294. Leningrad (1934). **a - 39**

**Dubourcq P. L.** - Ostica, een antieke zeehaven [*Agitur de Ostica, portu vetere maritimo*]. Haagsch Maandbl., 81-91. 's-Gravenhage (1935). **a - 40**

**Floris Peter** - His Voyage to the East Indies in the « Globe », 1611-1615. The contemporary Translation of His Journal Edited by W. H. Moreland [*Agitur de Petro* Floris *eiusque navigatione ad Indias Orientales, navis* « Globe » *auxilio, ab a. 1611 ad a. 1615. Eius diarii translatio in anglicam linguam modernam edita ab* H. W. Moreland]. 3 maps, lxx + 164 pp. Works iss. Hakluyt Soc., Ser. II, LXXIV, London (1934). **a - 41**

Story of the seventh voyage of Captain Peter Floris on board « The Globe » translated into modern English. The Captain was on the service of the East India Company and organized trade in the Bay of Bengala and the Gulf of Siam.

**Foster Will. (Ed.)** - The Voyage of Best (Thom.) to the East Indies, 1612-1614 [*De navigatione a* Best (Thom.) *suscepta in Indias Orientales (1612/14)*]. Map, 316 pp. Iss. Hakluyt Society Ser. II, LXXV. London (1934). **a - 42**

**Froger A.** - Les services maritimes France-Algérie depuis 1830 jusqu'à nos jours [*De servitiis maritimis a Gallia in Algariam ab a. 1830 in hodiernum tempus*]. 7 pl., phot., 34pp. Soubiron. Alger (1933). **a - 43**

**Ganong W. F.** - Crucial Maps in the Early Cartography and Place - Nomenclature of the Atlantic Coast of Canada [*Chartographiae veteris tabula crucialis ac nomenclatura portuum ad litora atlantica Canadensia pertinentium*]. 4 charts, Trans. R. Soc. Canada, XXVI, Sect. II, 125-177. Ottawa (1932). **a - 44**

**Giani A.** - Salomone Ireneo Pacifico inventore della bussola [*Salomon Irenaeus Pacificus inven-*

*tor buxidae*]. Riv. Cult. Mar. X, 1/2, 169-173. Roma (1935). **a - 45**

**Golder F. A.** - Bering's Voyages, Vol. I & II [*De navigationibus a* Bering *susceptis. Vol. Ium et IIum*]. 47 maps and photos., 371 & 290 pp., Amer. Geogr. Soc. New York (1935). **a - 46**

An account of the efforts of the Russians to determine the relation of Asia and America. The two volumes present an authoritative discussion of the two great expeditions conceived by Peter the Great on which were discovered Bering Strait and the northwest coast of North America from the southern tip of the Alaska panhandle to the westernmost of the Aleutian Islands. Volume I contains the English translation of the log books and Official Reports of the first and second expedition, 1725-1730 and 1733-1742. Volume II contains the first translation in English of the account of the sea voyage of the second expedition published in German in 1793, by the naturalist Georg Wilhelm Steller, who accompanied Bering. It is translated and in part annotated by Leonhard Stejneger.

**Gromov B.** - Le voyage du « Sibirjakov » [*De navigatione, navi* « Sibirjakov » *peracta*]. (En russe). 253 pp., Ed. « Sov. Lit. ». Moskva (1934). **a - 47**

**Gromov B.** - Trajet océanique jusqu'à l'Océan Pacifique [*De navigatione quadam per Oceanum usque ad Pacificum mare*]. (En ukrainien) 98 pp., Ukr. Rab. Kharjkov (1934). **a - 48**

Le voyage du brise-glace « Sibirjakov » en 1932.

**Groza I. R. & Doubenskij P. S.**, sous la rédaction de... – Aux valeureux vainqueurs de l'Arctique [*In memoriam navigatorum qui Arctidis asperitates superaverunt*]. (En russe). Ill., 2 cartes h. t., 178 pp., Oghiz-Sotzekghiz. Moskva (1934). **a - 49**

Recueil d'articles décrivant l'épopée du « Tchéljouskine ».

**Grubb Kenneth C.** - From Pacific to Atlantic [*Agitur de navigatione ab Oceano Pacifico ad Atlanticum*]. Chart & phot., x + 243 pp. Methuen & Co. London (1933). **a - 50**

**Gummá** - Una expedición catalana al Norte de California [*De navigatione a Catalanis suscepta in Californiam Nordicam*]. O Instituto, LXXXVII, 5. Coimbra (1934). **a - 51**

**Gweng-Tzam Dschu** - Die Binnenschiffahrt auf dem Jangtse-Kiang seit 1900 [*De navigatione interna secundum flumen* Jangtse Kiang *ab a. 1900 in hodiernum tempus*]. vi + 95 pp., Richard Mannheim. Berlin (1933). **a - 52**

**Hackel J.** - Remnants of Camp Schmidt Found [*De inventis relictis in castris ad* Schmidt *pertinentibus*]. (In Russ. & Engl.) Bull. Arct. Inst., 11/12, 409-410, 431-432. Leningrad (1934). **a - 53**

Information on several pieces of timber, barrels with kerosene, benzine and other things, belonging evidently to the camp Schmidt found in the neighbourhood of Wrangel Island; importance of the find of remnants from the vessel and camp Schmidt for the study of the currents in the Chukchee Sea.

**Hansen S.** - Færöernes förste bebyggelse [*De priore advectione colonorum in insulas* Faroe]. Nord. Tidskr., 506-513. Stockholm (1933). **a - 54**

**Hayes Gordon** - The Conquest of the North Pole: Recent Arctic Exploration [*De polo boreo deque recentioribus explorationibus regionum arcticarum*]. 16 pl., 317, Thornton Butterworth Ltd. London (1934). **a - 55**

**Henderson G. C.** - The Discoverers of the Fiji Islands [*De navigatoribus qui insulas* Fiji *invenierunt*]. 21 charts, 32 ills. xi + 324 pp., John Murray. London (1933). **a - 56**

Account of the work of the various seamen - Tasman, Cook, Bligh, Wilson and Bellingshausen, who have all contributed to the discovery of the entire Fiji group, on hand of the text of their journals, which the authors comment with great accuracy.

**Hennessy J.** - History of the Magnetic Compass [*De buxida magnetica eiusque historia*]. 5 figs, Mar. Obs., XII, 120, 149-151. London (1935). **a - 57**

Chinese Services. Norwegian history. Italian compass. Following progress. Sir W. Thomson's compass. « Dead Beat » compass.

**Hennig R.** - Die Geographie des Homerischen Epos. Eine Studie über die erdkundlichen Elemente der Odyssee [*De geographia apud epos Homericum. Studium geographicum Odysseae*]. Neue Wege z. Antike. I. Reihe, Darstell., H. 10, 101 S., B. G. Teubner. Leipzig (1934). **a - 58**

Vf. versucht in der vorliegenden Arbeit an Hand neuester wissenschaftlicher Forschung die Wege Odysseus' durchzuprüfen und behauptet, dass die erdkundlichen Kenntnisse der antiken Griechen viel weitgreifender gewesen sind, als man bis jetzt angenommen hatte.

**Hennig Richard** – Zusammenstellung der wichtigsten geographischen Entdeckungsreisen des Altertums und Mittelalters [*De notandis navigationibus explorandi causa susceptis antiquis temporibus et medio aevo*]. Peterm. Mitt., LXXX, 2, 45-47. Gotha (1934). **a - 59**

Einleitende Bemerkungen über die geplante Arbeit des Vf:s, welche infolge der Wirtschaftsdepression noch nicht veröffentlicht worden ist. Verzeichnis der vom Vf. studierten und an Hand der vorhandenen in - und ausländischen Spezialliteratur kritisch geprüften Entdeckungs - reisen des Altertums und Mittelalters.

**Hermann Albert** - Unsere Ahnen und Atlantis. Nordische Seeherrschaft von Skandinavien bis nach Nordafrika [*De majoribus nostris deque Atlantide. Marium imperium a Scandinavia ad Africam Nordicam*]. 90 Abb., 168S., Klinkhard & Biermann. Berlin (1934). **a - 60**

In diesem neuen Werke über die Atlantis führt Vf. einige Hypothesen vom historischen Standpunkte aus an und behauptet ausserdem seinerseits an Hand von ausgeführten Ausgrabungen und Untersuchungen, dass die Atlantis im südlichen Tunis, und zwar im Tritonschen Tale, sich befunden habe. Dieselbe Meinung ist seinerzeit auch von Berious und Vivien de Saint-Martin ausgesprochen worden. Vf. behauptet die « Atlanten » seien nördlicher Herkunft gewesen, « Leute der Frya », deren Typus noch heutzutage in einigen Berbern erkennbar sei.

**Herwerden (van) P. J.** - De Groninger zeevaart in de tweede helft der 19e eeuw [*De Groninga*

*ac navigatione ad eam pertinente, secunda dimidia parte sec. XIX$^{i}$*]. Van Gorcum & Comp. Assen (1935). **a - 61**

**Hobbs Herbert Williams** - Peary's Discovery of the North Pole [*De polo boreo a* Peary *invento*]. Science, LXXXI, 2102, 361-363. New York (1935). **a - 62**

Critical review of Hayes' work « The conquest of the North Pole ». Considerations in defence of Peary.

**Hoever Otto** - Von der Galiot zum Fünfmaster. Unsere Segelschiffe in der Weltschiffahrt von 1780-1930 [*Navigationis velicae historia* (*1780-1930*). Zahlr. Ill. u. Abb. 518 S., Angelsachsen-Verl. Bremen (1934). **a - 63**

Vf. bringt in den sieben Kapiteln seines Werkes eine erschöpfende Darstellung der Entwicklung der Schiffstypen innerhalb des genannten Zeitraums. Es wird die deutsche Segelschiffahrt geschildert mit besonderer Berücksichtigung der auf der Weser gebauten und beheimateten Segelschiffe. Es sind auch ausländische Segelschiffe beschrieben, weil ihre Typen die Voraussetzung des Baues einiger deutschen Segelschiffe gewesen sind. Ausser der Bauart, beschreibt Vf. auch das Schicksal einzelner Schiffe bis auf ihr Ende, schildert ihre Reisen und Erfolge und die Wechsel des Reeders oder der Flagge.

(S. « Besprechung » v. E. Römer, Seewart, IV, 1, 22-23, 1935).

**Houben H. H.** - Sturm auf den Südpol. Abenteuer und Heldentum der Südpolfahrer [*De exploratoribus regionum antarcticarum eorumque fortunis et rebus gestis*]. 3 Kart., 46 Abb., 306 S., Verl. Ullstein. Berlin (1934). **a - 64**

Lebensvolle Darstellung der gewaltigen Leistung der Entdeckungsgeschichte der Antarktis von James Cook bis zum Admiral Byrd über einen Zeitraum von 260 Jahren.

**Howard Dora** - The English Activities on the North Coast of Australia in the First Half of the Nineteenth Century [*De Anglica frequentia ad litora nordaustraliensia, prima dimidia parte sec. XIX$^{i}$*]. 2 maps, R. Geogr. Soc. of Australasia. South Austr. Branch, Proc. of the Soc. for the Sess. 1931–1932, XXXIII, 194, 21 pp. Adelaide (1933). **a - 65**

**Hutton W. M.** - Cape Horn Passage [*De promunturio nomine* Horn. *Agitur de transitu*]. 16 pls. vii + 157 pp., Blackie & Son, Ltd. London, Glasgow & Bombay (1934). **a - 66**

**Ingram Bruce S.** - The Occupation of Tristan da Cunha [*Agitur de insula* Tristan da Cunha *eiusque occupatione*]. Mar. Mirr., XXI, 1, 31-32. London (1935) **a - 67**

Some additional information about the hoisting of the British flag at Tristan da Cunha contained in a manuscript in the possession of the author, entitled « A Private Journal of the Proceedings of a party of men employed on the Island of Tristan da Cunha, commencing the 14th of August 1816 and ending the 27th of November 1816 », written by Midshipman William Burnaby Greene of H.M.S. « Falmouth ».

**Irving John** - The Navigation of Small Yachts [*De navigatione in pamphiliunculis*]. Diagrs., charts, viii + 296 pp., E. Arnold & Co. London (1934) **a - 68**

The scope of this book is to provide the cruising yachtsman with the necessary instruction for coastwise voyages and for the shorter open-sea passages. The methods described are based upon the use of simple instruments and of three or four standard books of reference, and require no knowledge of trigonometry on the part of the navigator.

**Ivanov** - Comment a péri le « Tchéljouskine » [*Quo modo navis* « Tcheljouskine » *periit*]. Za Roudou i Min., 13, 7. Moskva (1934). **a - 69**

**Ivantchouk M.** - 14 mois sur la Terre de François-Joseph (Impressions d'un hivernant) [*De hiematione in Terra Francisci Josephi, 14 menses*]. 2 edit. (En russe & ukranien.). Ill., 1 carte h. t., 124-119 pp., Oukr. Rob. Kharjkov (1934). **a - 70**

Impressions au cours de l'hivernage en 1931-1932 dans la Baie Tikhaja.

**Jansen P. G.** - Il Continente antartico e la scoperta del Polo australe [*Agitur de terra continentali antarctica deque invento polo australi*]. 304 pp., 15 tav. f. t., 2 cart. G. B. Paravia. Torino (1935). **a - 71**

Storia succinta degli eroismi e degli ardimenti umani volti al riconoscimento ed alla conquista delle lontane terre ignote dell'Antartico.

**Jourjev B. N.** - Navigation vers le delta du fleuve Petchora [*Agitur de quadam navigatione ad deltam fluminis* Petschora]. (En russe). 5 tabl. Khoz. Severa, 5, 73-83. Arkhangheljsk (1934). **a - 72**

**Jouzhyne D.** - L'épopée héroïque [*Agitur de calamitosa navigatione navis* « Tcheljouskine »]. (En russe). 7 fig., Karelo-Mourm. Kraj, 3/4, 1-7. Leningrad (1934). **a - 73**

L'expédition et le naufrage du « Tchéljouskine ».

**Joyce Elliott L. E.** (Edit.). - Wafer Lionel, A new Voyage and Description of the Isthmus of America. With Wafer's secret Report (1698) and Davis's Expedition to the Gold Mines (1704) [*Agitur de dom.* Lionel Wafer *eiusque nova navigatione, cum descriptione isthmorum Americanorum. Adiunguntur relatio secreta ad* Wafer *pertinens* (*a. 1698*) *et descriptio navigationis cuiusdam ad auri fodinas, anno 1704 a* Davis *susceptae*]. Maps, plates. Publ. Hakluyt Soc., LXXIII, 2nd ser., 211 pp. Oxford (1934). **a - 74**

A new edition with notes and appendices of this work issued first in 1699. The book offers a great historical and ethnographical interest with description of the A:s voyages in East and West Indias and round Cape Horn. In an appendix are dealt with the Cuna-Indians and the old Spanish colonisation.

**Judd Alfred** - The Conquest of the Poles and Modern Adventures in the World of the Ice [*De navigationibus ad polos deque rebus gestis inter glacies ab hodiernis exploratoribus*]. 17 pls., 364 pp., Nelson & Son. London (1934). **a - 75**

Account of the thrilling adventures of Robert E. Peary who discovered the North Pole on April 6, 1909

and Captain Robert F. Scott who attained the South Pole in January 1912 one month after Roald Amundsen who had succeeded in arriving there already on December 16, 1911.

**Kammerer Albert** - Les portugais dans la Mer Rouge et en Abyssinie: l'expédition de Cristophoro de Gama [*De Lusitanis per Mare Rubrum navigantibus usque in Aethiopiam. De navigatione a Cristophoro* de Gama *suscepta*]. Rev. Hist. Diplom., XLVIII, 330-354. Paris (1934). **a - 76**

**Keuning J.** - Een reusachtige aardglobe van Joan Bluit het midden der zeventiende eeuw [*Agitur de permagno quodam globo terrestri medio sec. XVII° ad Johannem* Blaeu *pertinente*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LII, 4, 525-538. Leiden (1935). **a - 77**

Geschichtlicher Ueberblick der Entdeckungsfahrten nach Indien von 1596 bis zur Mitte des 18. Jahrhunderts mit besonderer Berücksichtigung der von der « Vereinigten Oost-Indischen Compagnie » ausgeführten Arbeit. Vorgeschichte, Bereitung und Ausgabe der Weltkarte von Blaeu, verschiedene Teile und Exemplare dieser Karte. Die grosse Rolle der niederländischen Kartographie in der Mitte des 18. Jahrhunderts in Verbindung mit der West- und Ostindischen Compagnie.

**Keyes R.** - The Naval Memoirs of Admiral of the Fleet, Sir Roger Keyes: The Narrow Seas to the Dardanelles, 1910-1915. [*Memoriae nauticae ad Classis praefectum Dom.* R. Keyes *pertinentes. Agitur de accessibus Hellesponti* (*1910-1915*)]. Num. ills., maps, diagrs. E. P. Dutton & Co. New York (1934). **a - 78**

(—) Rev. by Rear Admiral C. P. Snyder, in « U. S. Nav. Inst. Proc. », LXI, 383, 112-113, Annapolis, Md (1935).

After a very interesting introduction, the author describes in a few chapters the development of the submarine, the training for war, and the war operations of this arm under his leadership. The rest of the book is devoted to the Gallipoli campaign.

**Keyes R.** - The Naval Memoirs. The Narrow Seas to the Dardanelles 1910-1915 [*Memoriae nauticae. De angustis maribus deque Hellesponto*]. Thornton. London (1934). **a - 79**

**Kolbine** - Sur la découverte d'une île dans la Mer de Kara [*De inventa quadam insula in mari nomine* Kara]. (En russe). Morsk. Sborn. (Recueil Marit.), 2, 132-133. Leningrad (1934). **a - 80**

Sur la découverte en automne 1933 par le brise-glace « Tchéljuskine » d'une île sur longitude 82°22'5'' E et latitude 72°27' N dans la Mer de Kara.

**Kretschmer Konrad** - Die verschollene Kolumbuskarte von 1498 in einer türkischen Weltkarte von 1513 [*De amissa tabula Columbiana a. 1498, in atlante quodam Turcico a. 1513 reperta*]. Peterm. Mitt., LXXX, 2, 48-50. Gotha (1934). **a - 81**

Rezension des von Paul Kahle in 1933 herausgegebenen Werkes.

**Krotkov** - Les opérations des sous-marins allemands dans le Nord [*De navibus submergibilibus Germanicis earumque rebus gestis per regiones nordicas*]. (En russe). Morsk. Sbornik, 6, 113-118. Leningrad (1934). **a - 82**

Description de l'activité des sous-marins allemands au cours de la Grande Guerre dans les mers polaires (Golfe de Kola).

**La Ronciere Ch. de & Clerc-Rampal G.** - Histoire de la Marine Française. Préface du Vice-Amiral Lacaze [*Classis Gallicae historia. Almiragius* Lacaze *praefatus est*]. 790 fig., 6 pl., 1 carte, vi + 408 pp. Larousse Ed. Paris (1934). **a - 83**

Documentation sur les évènements, auxquels prirent part les marins français dans les opérations de guerre, dans les explorations maritimes et en particulier dans le développement de l'Empire Colonial Français. Description des caractéristiques des navires qui ont servi au cours des diverses époques de cette histoire, ainsi que des progrès réalisés dans les constructions navales. Histoire et illustration des grandes batailles, auxquelles a participé la Marine Française.

**Laurentz Patrick** - Visit of Russian Squadrons in 1863 [*Agitur de visitatione cuiusdam classiculae Russae a. 1863*]. 2 figs., U. S. Nav. Inst. Proc., LXI, 385, 692-698. Annapolis, Md. (1935). **a - 84**

Historical account of the visit of the Russian frigate « Osliabia » and a Russian cruiser squadron to New York in 1863 and its political significance and consequences.

**Lee Ida** - The First Sighting of Australia by the English [*De Anglis eorumque primo appulsu in Australiam*]. Ill., Geogr. Journ. LXXXIII, 4, 317. London (1934). **a - 85**

Voyage of the « Trial », captain John Brooke, wrecked on North West Australian coasts (1622). Circumstances in which Australia was sighted for the first time by English sailors.

**Lefèvre Renato** - Un genovese a Mogadiscio nel 300 ? [*Agitur de quodam genuense qui a. 1300 civitatem* Mogadiscio *attigit*]. Riv. Colonie It., 7, 569-575. Bologna (1934). **a - 86**

Si riferisce sui tentativi di circumnavigazione africana effettuati probabilmente da un genovese sino a Mogadiscio nel 1300, secondo la relazione di un anonimo frate spagnolo.

**Lefranc Georges** - En naviguant dans le passé et dans le présent: III. Les grands voyages de l'Antiquité [*Historia navigationum temporibus praeteritis et hodiernis*]. 4 cartes h. t., 276 pp. Libr. Rev. Naut. Paris (1933). **a - 87**

La légende de l'Atlantide. Les grands voyages de l'antiquité: l'expédition des Argonautes, le périple de Hannon, la relation du voyage d'Himilcon de Rufus Festus Avienus, la vie du Perse Sastapès, la conquête par Carausius de la Grande-Bretagne au IIIème siècle.

**Le Marquand Henry** - Forbin. Précédé d'une lettre de Claude Farrère [*De* Forbin *eiusque vita. Praecedit epistula Claudii* Farrère]. 223 pp., Le Masque. Paris. **a - 88**

Vie mouvementée de Forbin qui, après avoir été grand amiral de Siam à la suite de son célèbre voyage en compagnie de l'abbé de Choisy, devint chef d'escadre de Louis XIV.

**Levar M.** - Le monde capitaliste sur le sauvetage des hommes du « Tchéljouskine » [*Agitur de pecuniosis hominibus deque auxilio navi* « Tchéljouskin » *inlato*]. (En russe). 1 fig., Karelo-Mourm. Kraj, 3/4, 17-21. Leningrad (1934). a - 89

**Lewis Blanche Mac Leod** - Along the North Shore in Cartiers Wake [*De navigatione ad litora nordica secundum sulcum a* Cartier *apertum*]. Num. figs., 1 pl., Canad. Geogr. Journ., VIII, 5, 200-221. Montreal (1934). a - 90

**Linschoten (van) Jan Huygen** - Itinerario, voyage ofte Schipvaert van-naer Oost ofte Portugaels Indien 1579-1592, 3ᵉ deel. Beschryvinghe van de gantsche custe van Guinea, Manicongo etc. Volcht noch de beschryvinghe van West-Indien, met hare caerte [*Iter seu navigatio, itus et reditus, in Orientem versus, ad Indias Lusitanas (1579-1592). Pars IIIª. Descriptiones litorum ad Guineam et* Manicongo *pertinentium. Sequitur etiam descriptio Indiarum Occidentalium cum annexa tabula*]. Portr., maps, figs., 337 pp. Werken uitgeg. door de Linschoten-Vereen, XXXIX, C. P. Burger Fr. & F. W. T. Hunger. 's-Gravenhage (1934). a - 91

**Löchstöer J.** - Litt av den Nautiske Mils historie [*De historia mensurarum maritimarum*]. Norsk Tidsskr. f. Sjövesen. Mars, 121-128, Horten (1934). a - 92
(—) Voir rès. franç. dans: Rev. Hydrogr. XI, 12, 136-138. Monaco (1934).

Résumé des unités de mesure des distances à la mer, qui ont été employées au cours des temps. L'auteur s'est servi, entre autres, d'un article paru dans les « Ann. d. Hydrogr. » de 1913: « Zur Geschichte der Seemeile » par H. Wagner.

**Lozano y Rey Luis** - Excursión científica a la costa del Sahara Español [*Navigatio scientiae causa ad litora regionis Saharianae hispanicae*]. Num. fig., Bol. Soc. Geogr. Nac., LXXV, 4, 195-230. Madrid (1935). a - 93

Reseña de las labores de exploración realizadas en aquellos Territorios por los españoles, que hasta ahora han sido poco intensas, en parte por las dificultades que ofrece aquel pais insumiso.

**Lumbroso Alberto** - Napoleone ed il Mediterraneo [*De Napoleone deque mari Mediterraneo*]. (I libri del mare della Lega Navale Italiana). P. de Fornari & C. Genova (1934). a - 94

Vent'anni di guerra oceanica fra Gran Bretagna e Francia. Sulla preoccupazione di Napoleone di togliere all'Inghilterra l'egemonia marittima. L'A. vuole anche dimostrare che Napoleone dette alla Marina molte cure, frustrate, però, dalla mancanza di degni ammiragli.

**Machado Carlos Roma** - Resumo dos principais territorios, locais, ilhas, regioes, descobertos, conquistados ou ocupados, visitados, ou sob a influência des portugueses, na Africa, Asia, América e Oceania desde a dinastia de Aviz ate a dos Filipes, ou seja de 1415 a 1580 [*Compendium notitiarum ad praecipua territoria, insulas, regiones inventas vel captas vel etiam in dicione Populi Lusitani pertinentium, in Asia, Africa, America, Oceania a dynastis* de Aviz *ad dynastas* Filipes, *idest ab a. 1415 ad a. 1580*]. (Av. rés. franç). Bol. Soc. Geogr., Ser. 52, 1/2, 27-36. Lisboa (1934). a - 95

**Machado De Faria e Maja Carlos Roma** - As viagens dos portugueses ha Africa e ha Asia [*De navigationibus a Lusitanis peractis in Africam et Asiam*]. Soc. Geogr. Lisboa, Bol. LI, 11 & 12, 26-40. Lisboa (1933). a - 96

**Magnaghi Alberto** - Una curiosa documentazione dei servigi resi dal Portogallo alle Scienze geografiche nell'Epoca delle grandi scoperte [*Documenta quaedam notanda de beneficiis quae Lusitani contulerunt in Scientias geographicas, aetate magnarum inventionum geographicarum*]. Riv. Geogr. It., XLI, 6, 145-168. Firenze (1934). a - 97

**Mais S. P. B.** - A Modern Columbus [*Columbus hodiernus*]. 25 pl., xiii + 401 pp. Rich & Cowan, Ltd. London (1934). a - 98

**Malinovskij L.** - L'enseignement de l'épopée arctique [*Quae nos docent navigationes in regiones arcticas*]. (En russe). Grazhd. Aviatzia, 5, 1-4. Moskva (1934). a - 99

Description de l'expédition de 1934 du brise-glace « Tchéljouskine » et les enseignements concernant l'exploration des régions polaires qui en dérivent.

**Maranini G.** - La costituzione di Venezia [*De Venetiarum constitutione*]. La Nuova Italia. Venezia (1931). a - 100

**Maranini G.** - La Costituzione di Venezia dopo la serrata del Maggior Consiglio [*De constitutione Venetiarum. Notae historicae*]. La Nuova Italia. Venezia (1934). a - 101

**Mason Michael** - Where Tempests Blow upon the Land of Magellan [*De navigatione ad terram Magellanicam super quam tempestates halitant*]. Ill., charts, xiv + 182 pp. Hodder & Stoughton. London (1933). a - 102

Voyage on board a small towing boat through the Patagonia fjords.

**Mc Culloch J. H.** - A Million Miles in Sail: Being the Story of the Sea Career of Captain G. C. Dixon [*De Cap.* G. C. Dixon *eiusque vita maritima*]. Ills., 256 pp., Hurst & Blacket. London (1933). a - 103

The book contains an account of forty years of sail, since Captain Dixon went to sea as a child in the « Vaughin », a 900-ton barque commanded by his father sailing from Liverpool to Valparaiso in 1881, and left, as master, the four-masted barque « Elginshire » in Liverpool in 1919. The book represents a very interesting account of the later days of sail, and contains some valuable observations, such as data concerning the height and length of seas, a chapter on the Sargasso, remarks on icebergs, and notes on the bottle-paper records which Captain Dixon kept for 15 years for the U. S. Hydrographic Office.

**Mezheritcher L.** - Héroïsme incarné dans des photos [*De heroica navigatione navis* « Tcheljouskine » *ex photographiis*]. (En russe). 2 photos, Sov. Photo, 4/5, 6-8. Moskva (1934). **a - 104**

Description du matériel photographique réuni par P. K. Novitzkij, membre et photographe de l'expédition du « Tchéljouskine ».

**Mikkelsen K.** - Opdagelsen av Ingrid Christensen Land [*De inventa Terra* Ingrid Christensen]. Map, Norsk Geogr. Tidsskr. V, h. 6, 2, 372-376. Oslo (1935). **a - 105**

Eingehende Reisebeschreibung; ausgeführte Lotungen.

**Mirsky Jeannette** - To the North! The Story of Arctic Exploration from Earliest Time to the Present [*De historia navigationum ad regiones nordicas ab antiquis temporibus in hodiernum tempus*]. Ills. & maps, xix + 386 pp. The Viking Press. New York (1934). **a - 106**

(—) Northern Conquest. 16 pls. xx + 386 Hamish Hamilton. London (1934).

Historical review of arctic exploration, in which special attention is paid to the work of English and American explorers.

**Mladiáta János** - A tenger és a tengeri hajózás a memzetek kulturalis és gazdasági életében [*De mari et navigationibus pro erudita et economica vita omnium gentium*]. (En hongrois). A Tenger, XXV, 1/4, 1-7. Budapest (1935). **a - 107**

**Mollema J. C.** - De eerste schipvart naar Indië onder Cornelis de Houtman [*De prima navigatione in Indias, duce* Cornelis de Houtman]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LII, 1, 220-291. Leiden (1935). **a - 108**

Conférence avec des projections lumineuses tenue le 7 décembre 1934 à la Haye. Description du voyage des navires « Maritius, Amsterdam en Hollandia » et le « Duyfken » en 1595-1597.

**Moreland W. H. (Edit.)** - Floris (Peter), his Voyage to the East Indies in the Globe 1611-1615 [*De navigatione Petri* Floris *in Indias Orientales* (*1611-15*). Publ. Hakluyt Soc., LXXIV, 2nd ser., 164. London (1934). **a - 109**

Contemporary translation of his journal edited by Moreland. Peter Floris is Pieter Willemsz. van Elbing who was in the Dutch Service of India about 1600 to 1608. The expedition dealt with here was undertaken on behalf of the East India Company, in London from England to the Coast of Coromandel.

**Murray Marischal** - Ships and South Africa: A Maritime Chronicle of the Cape, with Particular Reference to Mail and Passenger Liners from the Early Days of Steam down to the Present [*Chronica maritima promunturii Bonae Spei. Agitur particulatim de navibus tabellariis et vectoriis a temporibus inventionis navium vaporalium in tempus hodiernum*]. 332 ills., xxvi + 360 pp., Univ. Press. Oxford (1933). **a - 110**

In the first part of his work the author gives a history of steam navigation to South Africa from the year 1825 and tells in the same time the story of the development of the steamship companies giving also an account of the most glorious voyages performed by different ships belonging to those companies; in three chapters he deals with the story of the part taken by South African shipping in the Great War, while two others contain accounts of shipwrecks and disasters. The second part of the volume has two sections, of which the first is entitled « The Shipping Lines and their Story », and the second gives some information on 190 vessels in alphabetical order which have belonged to the Union Castle, and Union Castle Lines.

**Neeser Robert W.** - Historic Ships of the Navy. « Constellation » [*De historicis navibus ad classem pertinentibus. Navis nomine* « Constellation »]. U. S. Nav. Inst. Proc., LXI, 386, 539-544. Annapolis, Md. (1935). **a - 111**

Story of the first « Constellation », a sailing frigate of 36 guns built by « the War and Treasury Departments » at Baltimore, Md., under the terms of the Act of March 27, 1794. Dimensions, armament and staff of the frigate. Its life and career until October 30, 1917, day on which her name was changed to « Old Constellation », in order that her original name might be perpetuated in the Navy. Brief account of the second « Constellation », a battle cruiser of 43,500 tons displacement, and the keel of a third « Constellation » laid on August 18, 1920.

**Nibbi G.** - Nelle isole della Felicità [*De navigatione ad insulas Beatitudinis*]. Carabba. Lanciano (1934). **a - 112**

Viaggio all'Arcipelago delle isole della Società e di Tahiti.

**Nordov M.** - L'expédition du « Tchéljouskin » [*De navigatione navi* « Tscheljuskin » *peracta*]. (En russe). 4 fig., Vestn. Znan., 5, 278-284. Leningrad (1934). **a - 113**

**Novikov N.** - Voyage autour du monde de Lidtke sur la chaloupe militaire « Senjavine » en 1826 et 1829 [*De navigatione per orbem a* Lidtke *peracta in militari scapha nomine* « Senjavine » *a. 1826 et a. 1829*]. (En russe). 29 fig., 1 carte h. t. 260 pp., Mosk. Tov. Pissat. Moskva (1933). **a - 114**

Chapitre XII de l'intéressant ouvrage: « Exploration du littoral de la Mer de Bering ».

**Novitskij P.** - Ma quatrième campagne polaire [*De quarta navigatione ad polum ab auctore peracta*]. (En russe). 7 photos., Sov. Photo, 4/5, 4-5. Moskva (1934). **a - 115**

**Oellrich H.** - Segler-Reisen von Europa nach Australien und zurück [*De navigationibus velorum tantum auxilio ab Europa in Australiam et contrarie*]. 1 Taf., Seewart, IV, 1, 9-10. Deutsche Seew. Hamburg (1935). **a - 116**

1. Reisen von Europa nach den Häfen des Spencer Golfs; 2. Reisen von Europa nach Afrika und weiter nach dem Spencer Golf. I. Reisen von Australien um Kap Horn nach Europa, II. Reisen von Australien um Kap Hoffnung nach Europa.

**Olsen Örjan** - La conquête de la terre. Histoire des découvertes et des explorations des origines à nos jours. Tome III [*Historia inventionum geographicarum et explorationum ab antiquis temporibus in hodierna. Vol. III*$^{um}$]. 76 fig., 271 pp., Payot. Paris (1934). **a - 117**

Ce III$^{\text{ème}}$ volume de « La conquête de la terre » commence avec le deuxième voyage de Colomb et termine avec le tour du monde de Magellan; de nombreuses gravures d'après les documents anciens ornent le texte.

**Olszewicz Boleslaw** - La prétendue découverte de l'Amérique en 1476 [*De simulata Americae inventione a. 1476*]. Soc. Polonaise d'Hist., La Pologne au VII Congr. Intern. Sciences Histor., III, 143-150. Varsovie (1933). **a - 118**

**Ostrovskij B. G.** - Ceux qui sont partis trop tot [*De prioribus exploratoribus regionum polo proximarum qui maturius profecti sunt*]. (En russe). Ill. 257 pp., Poljarn. Bibl., Ed. Inst. Arct. URSS. Leningrad (1934). **a - 119**

Biographies, descriptions de l'activité des explorateurs polaires morts sur la brèche: G. J. Sjedov, V. A. Roussanov, G. L. Broussilov et E. V. Tolj. Bibliographie (60 titres).

**Palmer Wayne Francis** - Men and Ships of Steel. A Story in Pictures of a Navy in Its Ascendency [*Historia classis ad Americae Status Foederatos pertinente*]. 275 photos., 160 pp., Will. Morrow & Co. New York (1935). **a - 120**

This volume is a broad panorama of the U. S. Navy, Marine Corps, and Coast Guard. The book is divided into sections under the headings of « Heritage », « Birth », « Life », « Death », and beyond death « The Fleet Steams On».

**Pelliot P.** - Les grands voyages maritimes chinois au début du XV$^e$ siècle [*De navigationibus a Sinis peractis ineunte sec. XV°*]. T'oung Pao, XXX, 237-432. Leyden (1933). **a - 121**

**Pepulim Domingos** - Fenìcios e Portugueses-O Periplo de Africa [*Phoenices et Lusitani. Primus Africanus periplus*]. (Rès. franç.). Bol. Soc. Geogr., Maio-Out., 51 Ser., 8-14. Lisboa (1933). **a - 122**

L'A. établit quelques points de contact entre l'action des Portugais et celle des Phéniciens en matière d'exploration maritime. Il décrit l'état des connaissances géographiques au temps de D. Alphonse V et de l'Infant D. Henri le Navigateur. Les voyages des Portugais à cette époque. Considérations sur la possibilité de l'effectuation de la part des Phéniciens de la circumnavigation du continent africain. Importance de la connaissance de la part des Portugais des traditions phéniciennes; les principales forces mobiles qui poussèrent les navigateurs portugais à la découverte de nouvelles terres; erreurs accumulées dans l'interprétation de la politique des découvertes et des navigations.

**Pescio Amedeo** - Domina maris. (I libri del mare della Lega Nav. It.) 258, S. de Fornari & C. Genova (1934). **a - 123**

Le vicende gloriose della Marina genovese nel secolo XIII e nei primi anni del secolo successivo.

**Petrov G. G.** - Hiver sur le Cap Schmidt [*Hiematio apud promunturium* Schmidt]. (En russe). Za Osvojenije Arkt., 251-255. Leningrad (1935) **a - 124**

**Pirey Saint-Ably** - Le Du Guesclin de la mer. L'Amiral Jean de Vienne, 1341-1396 [*Agitur de Almiragio Johanne* de Vienne *qui dici potest* Du Guesclin *maritimus*]. Avent. & Lég. de Mer, 221 pp., Le Masque. Paris (1934). **a - 125**

La vie et les aventures de Jean de Vienne qui se distingua à côté de Du Guesclin dans la lutte contre les Navarrais, fut nommé maréchal à 23 ans par le roi Charles V et gagna la campagne de 1380 contre les Anglais, étant alors Amiral de France depuis le 27 décembre 1373.

**Polledro-Leo Galetto Alfredo** - L'odissea del Celiuskin [*De calamitosa navigatione navis* « Celiuskin »]. 200 pp. Mondadori, Milano (1935). **a - 126**

**Prestage Edgar** - The Portuguese Pioneers [*Lusitani praecones*]. Maps., xiv + 352 pp., The Pioneer Histories, ed. by V. T. Harlow & J. A. Williamson. A. & C. Black. London (1933). **a - 127**

This volume contains the history of Portuguese exploration and covers the whole period of Portuguese expansion from the voyage to the Canaries in 1341 to the first landing in Japan in 1568. It brings to full significance the effort whereby Portugal « discovered half a world in the course of a century ». The author discusses also the Portuguese claim to the discovery of Australia and deals in the last chapter of his work with the nautical and cartographical science of the Portuguese and with the ships and seamen of the period of the great voyages.

**Prowse G. R. F.** - Exploration of the Gulf of St. Lawrence. (1499-1525) [*De exploratione Sinus Sancti Laurentii (1499-1525)*]. Charts, 32 pp, typewr. Winnipeg (1933). **a - 128**

Second edition entirely rewritten for the Cartier Quadricentenary 1934.

**Ramusio Giov.-Battista**, tr. de l'Ital. par le Gén. Langlois et M. J. Simon - A la découverte de l'Amerique du Nord. Navigations et voyages (XVIème siècle) [*De navigationibus et itineribus secolo XVI susceptis ad regiones Americae septentrionalis explorandas*]. Coll. Textes rel. anciennes civilisations Mexique et Amér. Centr. publ. sous la direct. de M. J. Genet, VIII, iii + 117 pp. Paris (1933). **a - 129**

**Rasmussen Knud** - Rasmussens Thulefahrt: 2 Jahre im Schlitten durch unerforschtes Eskimoland [*De itinere a* Rasmussen *duo annos suscepto trahearum auxilio per inexploratam regionem quam Esquimeses incolunt*]. 349 S., Societäts-Verl. Frankfurt a/M. (1934). **a - 130**

**Ratto H. R.** - Marinos y Pilotos de la época del Virreinato [*De nautis et pilotis ad aetatem quae* Virreinato *nomen habet pertinentibus*]. Bol. Centro Naval, a. LII, 504. Buenos Aires (1934). **a - 131**

**Recht P.** - Les Belges à la recherche du passage Nord-Est au XVIème siècle [*Belgae transitum nordorientalem quaerentes seculo XVI°*]. Bull. Soc. R. Belge de Géogr., LVIII, 2, 73-93. Bruxelles (1934). **a - 132**

**Richmond H.** - Naval History and the Citizen [*De historia nautica deque civibus*]. Univ. Press. Cambridge (1934). **a - 133**

**Roever (de) J. W.** - Vaart door het Suezkanal. N. a. van het 65-jarig bestaan van het kanal 17 nov. 1869-1934 [*Traiectus canalis* Suez, *LXV° jubilaeo recurrenti ab apertione canalis. 17 Novembris 1869-1934*]. Onze Aarde, 399-404. Amsterdam (1934). **a - 134**

**Ross C.** - Zwischen U. S. A. und dem Pol: durch Kanada, Neufundland, Labrador und dem Arktis [*De quadam navigatione ab Americae Statibus Foederatis ad Polum, per Canadensem et Labradoricam regiones, per Terram Novam et Arctidem*]. F. A. Brockhaus. Leipzig (1934). **a - 135**

**Rutten L.** - Oude Land - en Zee - Verbindingen in Midden-Amerika en West-Indië [*De veteribus communicationibus terrestribus et maritimis inter Americam centralem et Indias occidentales*]. 5, 1 Karte a. T, 1 Tab., Tijdschr. Kon Ned. Aardr. Gen. Tweede Reeks LI, 4, 551-600. Leiden (1934). **a - 136**

Bericht über die biogeographischen und geologischen Methoden und die damit gewonnenen Ergebnisse in Bezug auf die Kenntnisse der prähistorischen, wechselnden Landes- und Meeresverbindungen zwischen Zentral-America und Westindien. Das Vorkommen der Fossilien, mit tabellarischer Uebersicht der verschiedenen geologischen Perioden von Zentral-Amerika und Westindien und die daraus gezogenen Schlussfolgerungen. Erörterung des vorwiegenden ozeanischen oder kontinentalen Charakters des Golfs von Mexiko und der Karibischen See.

**Sakellari N.** - Sur le « Krassine » à travers deux océans [*De navigatione in navi* « Krassin » *per duos Oceanos*]. (En russe). 2 fig. Morsk. Sborn., 10, 121-124. Leningrad (1934). **a - 137**

**Sandifiord R.** - Una gloriosa impresa della Marina Toscana [*De gloriosa quadam expeditione classis Tuscae*]. 1 Fig. f. t. Riv. Cult. Mar., X, 718, 57-64. Roma (1935). **a - 138**

La presa della città di Bona di Barberia (16 settembre 1607).

**Sauvaire Jourdan** - La navigation dans la Baie d'Hudson [*De navigatione per bajam Hudsoniam*]. 8 fig., La Nature, 2930, 499-503. Paris (1934). **a - 139**

**Schmidt O. J.** - Le voyage du « Sibirjakov » et le problème de la Voie Maritime du Nord [*De navigatione navis* « Sibirjakov » *ad inveniendum cursum maritimum nordicum*]. (En russe). Vodn. Transp., 2/3, 24-25. Moskva (1934). **a - 140**

**Schmidt O. J., Baevskij I. L. & Mekhliss L. Z.,** sous la rédaction de... - La campagne du « Tchéljouskine ». Vol. I & II [*De navigatione navis* « Tchéljouskine » *Vol. Ium et IIum*]. (En russe). Portr., ill., 3 & 2 cartes h. t., 472 & 468 pp., Gheroïtch. Epop., Ed. « Pravda ». Moskva (1934). **a - 141**

**Schoenborn (von) E.** - Die Reisen des Wilhelm Barents 1594-97 zur Entdeckung der nordöstlichen Durchfahrt. Aus dem französischen Original des Gerard de Veer von 1609 übersetzt und bearbeitet von... [*De navigationibus peractis a Gulielmo Barents (1594-97) ad inveniendum transitum nordoccidentalem. Opus translatum et elaboratum ab archetipo Gallico ad Gerardum de Veer pertinente, a. 1609...*]. 16 Abb., 141 S., Univ.–Druck. Würzburg (1934). **a - 142**

Tagebuch der täglichen Erlebnisse während Wilhelm Barents' abenteuerlicher Reise. Ein naiver, ohne vorgefasste Meinung, geschriebener Bericht.

**Scott R.,** trad. par **Ragozina Z. A.** - Le journal du Capitaine R. Scott. Trad. et Rev. de l'angl. [*Diarium Cap.* Scott. *Translatum et recognitum ab archetipo Anglico*]. (En russe). Portr. & fig., 1 carte & 1 prof. h. t., 329 pp., Poljarn. Bibl., Ed. Inst. Arct. URSS, Leningrad (1934) **a - 143**

**Seabrook W. B.** - L'île magique [*De insula magica*]. Didot. Paris (1934). **a - 144**

L'auteur nous porte à travers l'île de Haïti.

**Singer Max** - Les héros de l'Union Soviétique [*Heroes Reipublicae Sovieticae idest nautae navis* « Tcheljouskine »]. (En russe). Nov. Mir, IV, 142-155. Moskva (1934). **a - 145**

Description populaire et artistique de l'expédition du « Tchéljouskine ».

**Sottas Jules** - Un navire de la flotte de la reine Hats-hep-sout [*Agitur de navi quadam ad classem reginae* Hats-hep-sout *pertinente*]. 3 fig., Bull. Soc. Océanogr. France, 60, 1073-1079. Paris (1931). **a - 146**

Conférence faite au « Sabord » le 27 avril 1931 et illustrant un modèle de navire égyptien de la XVIIème dynastie avec référence spéciale à une expédition au pays de Pount par la reine Hats-hep-Sout, dont les scènes taillées au ciseau figurent sur les murs du temple Deir-el-Bahari. Les tableaux montrent la flotte commerciale de la reine, composées de cinq galères; ils sont traités avec un souci de détail et d'exactitude formant ainsi, pour l'archéologie, une mine de renseignements.

**Swanson Claude A.** (Under the direction of) - Naval Documents Related to the quasi-War Between the United States and France. Naval Operations from February 1797 to October 1798 [*Documenta nautica de quasi bello inter Americae Status Foederatos et Galliam. Agitur de expeditionibus navalibus a mense Februario 1797 ad mensem Octobrem 1798*]. U. S. Govmt. Pr. Off. Washington (1935). **a - 147**

Official publication prepared by the Office of Naval Records and Library, Navy Department, under the supervision of Captain Dudley W. Knox, U. S. Navy (ret.) By authority of an Act of Congress approved March 15th 1934.

**Swanson John R.** - The Landing Place of De Soto [*Locus ubi* De Soto *escensionem fecit*]. Science, LXXX, 2076, 336-337. New York (1934). **a - 148**

Coordinates of the landing place. General description of the coast in Spanish and English. The lines reported by the author were written almost seventy-three years after De Soto landed. He concludes that it was in Tampa Bay that De Soto discharged his army.

**Sykes Sir Percy** - A History of Exploration, from the Earliest Times to the Present Day [*De explorationum historia ab antiquissimis temporibus in hodiernum*]. Ills., maps, xiv + 374 pp., G. Routledge & Sons. London (1934). **a - 149**

An introduction into the history of exploration, on hand of original narratives of those who have taken part in the unveiling of Earth's surface.

**Szymanski H** – Deutsche Segelschiffe. Die Geschichte der hölzernen Frachtsegler an den deutschen Ost- und Nordseeküsten vom Ende des 18. Jahrhunderts bis auf die Gegenwart [*Historia navium commercialium ad litora germanica Maris Baltici et Maris Nordici a seculo XVIII° exeunte in hodiernum*]. 252 Abb., Inst. f. Meereskunde, Veröff., N. F., B. 10. Berlin (1934). **a - 150**

**Tchernov A.** - Les fils héroïques d'un grand Pays [*De nautis navis* « Tcheljouskine », *filiis heroicis populi Russi*]. (En russe). Za Roudou i Min., 13, 6-7. Moskva (1934). **a - 151**

Récit des aventures des membres de l'expédition du brise-glace « Tchéljouskine » – fait par eux-mêmes: par l'aviateur M. S. Babouchkine, J. J. Gackel, V. G. Vassiliev et autres.

**Vaillat L.** - Le périple marocain [*Periplus mauretanicus*]. Flammarion. Paris (1934). **a - 152**

**Valentiner Max** - U-38. Wikingefahrten eines deutschen U-Bootes [*De explorationibus a quodam navi submergibili germanica peractis*]. A. G. Ullstein. Berlin (1934). **a - 153**

Kriegsabenteuer des Kommandanten Valentiner an Bord des *U-38.*

**Valette de La J.** - Steam Navigation to the East Indies [*De vaporali navigatione in Indias Orientales*]. The Asiatic Review, April, 342 pp. London (1933). **a - 154**

**Verchynine I.** - Travaux scientifiques de l'équipage du « Tchéljouskine » [*De operibus scientificis peractis a nautis navis* « Tscheljouskin »]. (En russe). 4 fig., 1 carte, Vestn. Znan., 8, 486-492. Leningrad (1934). **a - 155**

**Wagner H. R.** - Spanish Explorations in the Strait of Juan de Fuca [*De exploratione ab Hispanis peracta in Freto* Juan de Fuca]. 13 charts, v + 323 pp. Five Arts Press. Santa Ana (1933). **a - 156**

**Wiese W. J.** - Sur le « Sibirjakov » dans l'océan Pacifique [*De navigatione per oceanum Pacificum in navi* « Sibirjakov »]. (En russe). Ill., 1 carte h. t., 2 portr. 146, pp. Poljarn. Bibl. Ed, Adm. Centr. Voie Nord. Léningrad (1934). **a - 157**

**Williams C. H.** - Magellan [*Magellanus*]. Mar. Obs., XII, 119, 102-106. London (1935). **a - 158**

Detailed and artistic history of the life and voyages of this Portuguese hero.

**Williamson J. A.** - Edit. from the Text of 1622 by. . . The Observations of Sir Richard Hawkins [*De observationibus peractis a Dom. Richardo* Hawkins]. Maps., xcii + 190 pp. The Argonaut Press. London (1933). **a - 159**

(—) Review of the book by V. T. H. inGeogr. Journ., LXXXIII, 4, 340–341. London (1934).

The present text carefully printed from a photostat reproduction of the original text of Sir Richard Hawkin's « Observations », constitutes a mine of information on naval organization and everyday life on board ship in the time of Elisabeth. In an introduction the Editor gives a detailed survey of the origin and development of Elisabethan scheme for establishing a great British Empire in the South Sea.

**Worsley F. A.** - Shackleton's Boat Journey [*De navigatione in naviculis ad* Shackleton *pertinentibus*]. Philip Allan & Co. London (1933). **a - 160**

**Wright A. Irene (Ed.)** - Nederlandsche Zeevaarders op de eilanden in de Caraïbische Zee en aan de kust van Columbia en Venezuela gedurende de jaren 1621-1648 [*De Hollandesibus navigatoribus ad insulas Caraibicas et litora Columbiana et Venezuelensia ab a. 1621 ad a. 1648*], 434 pp. Publ. Histor. Genootsch., Utrecht, Deel I, 1621-1641, 3rd ser., n. 63. Utrecht (1934). **a - 161**

Documents principally from Archivo general de Indias, Sevilla. Transl. by C. F. A. van Dam.

**Wright J. K.** - Some Broader Aspects of the History of Exploration: A Review [*De navigationum explorandi causa historia. Aspectus majoris momenti. Recensio*]. Geogr. Rev., XXV, 2, 317-320. New York (1935). **a - 162**

On hand of 18 several works dealing with exploration, the author emphasizes the various broader aspects of the latter and formulates some criticism as to the contents and maps of the books reviewed.

**Zinger Max** - Les héros de l'Union Soviétique [*De nautis navis* « Tcheljouskine », *populi Sovietici filiis heroicis*]. (En russe). 47 pp. Zhourn.-Gaz. Obj., Bibl. Ogonjok, 31. Moskva (1934). **a - 163**

L'expédition du brise-glace « Tchéljouskine » en 1933.

**American Geographical Society** - Special Publication No. 17. The Discovery of the Amazon [*De inventione fluminis quod ab Amazonibus nomen capit*]. xiv + 467 pp., H. C. Heaton, New York (1934). **a - 164**

Translated from the Spanish by Bertram T. Lee. Report according to the account of Friar Gaspar de Carvajal and other documents.

**Molodaja Guardia Edit.** - L'équipage du « Tchéljouskine » est sauf [*Nautae navis* « Tscheljouskine » *salvi sunt*]. (En russe). Ill., 1 carte h. t. 110 pp. Oghiz. Moskva (1934). **a - 165**

**Ordnance Survey Office** - The International 1 : 1000000 Map. Report for 1933 [*De charta internationali 1 : 1000000. Relatio a. 1933*]. 7 tabl., 28 pp. Central Bureau. Southampton (1934). **a - 166**

**Secção de Historia da Sociedade de Geografia** - Comemoração do descobrimento dos Açores [*De inventis insulis* Açores. *Commemoratio*]. (Rés. franç.). Bol. Soc. Geogr., 52 Ser., 3/4, 91-105. Lisboa (1934). **a - 167**

Se fondant sur les chroniques de l'époque et sur les documents historiques résumés et cités en détail, la Section d'Histoire de la Société de Géographie de Lisbonne commémore dans le présent article la découverte des Açores et attribue une grande importance aux connaissances sur la navigation astronomique réunies par l'école de Sagres dans cette découverte; elle met en évidence la science nautique portugaise qui contribua aussi à d'autres découvertes ultérieures, y-compris celle de l'Amérique.

**I. D. N.** - La première apparition sur les Cartes Marines du Continent australien [*Tabulae nauticae Australiam repraesentantes*]. 2 petites cartes, Rev. Hydrogr., XI, 2, 95-96. Monaco (1934). **a - 168**

Sur un document contenu dans le vol. V, des Monumenta Cartographica (édité par le Dr. F. C. Wieder, bibliothécaire de l'Université de Leyde, publié à la Haye en 1933 par la firme Martinus Nijhoff) présentant un intérêt tout spécial pour le cartographe. Il est intitulé: La Découverte de l'Australie par le yacht « Het Duyfien » 1606. Cette carte représente le trajet suivi par ce yacht tant à son voyage d'aller qu'à son voyage de retour au cours d'une visite aux terres situées à l'Est de Banda, jusqu'à la Nouvelle-Guinée.

**Sch. S. N.** - The English in Kamtschatka, 1779 [*Agitur de Anglis eorumque rebus gestis in* Kamtschatka, *a. 1779*]. 3 ills., Geogr. Journ., LXXXIV, 5, 417-419. London (1934). **a - 169**

This article is in part a summary and in part a translation of an essay in the Russian historical monthly « Istoritscheskij Vestnik » for February 1885 and contains an account of Captain Charles Clerke's adventures and death in Kamtschatka, where he arrived on May 1st, 1779 after Captain Cook's death in order to carry out his project of exploring and surveying Bering Strait and the Arctic Ocean.

**An.** - Perdus dans les glaces. Expédition polaire de G. L. Broussilov sur le bateau de chasse « Sv. Anna » [*De navigatione ad polum a G. L.* Brussilov *peracta in navicula venatoria, nomine* « Sv. Anna »]. (En russe). Ill., 282 pp. Poljarn. Bibl., Ed. Inst. Arct. URSS. Leningrad (1934). **a - 170**

**An.** - Le camp de Schmidt dans les glaces [*De castris inter glacies a* Schmidt *constitutis*]. (En russe). 92 pp., Sev. Kraj. Izd. Arkhangheljsk (1934). **a - 171**

Souvenirs des membres de l'expédition du « Tchéljouskine » originaires d'Arkhangheljsk.

**An.** - Wreck of the S/S « Cheljuskin » [*De naufragio navis* « Celjuskin »]. (In russ. & engl.). Bull. Arct. Inst., 2, 49 & 92. Leningrad (1934). **a - 172**

Text of the wire received by the Arctic Institute from the Chief of the expedition on the Soviet steamer « Cheljuskin » briefly describing the wreck of the ship occurred on February 13th, 1934, completed by an account of Captain V. I. Voronin, which indicates the exact position of the wrecked ship.

**An.** - The Voyage of the S/S « Sedov » to Novaja Zemlja [*De navigatione ad* Novaja Zemlia *navi vaporali* « Sedov » *ad Rempublicam Sovieticam pertinente peracta*]. Bull. Arct. Inst., 2, 73, 109. Leningrad (1934). **a - 173**

Brief account of the voyage made in order to take on board the « Sedov » the crew of the wrecked ship « Vostorg », made in Winter 1933.

**An.** - Sea-Transport Expedition to the Lena River in 1933 [*De expeditione cuiusdam classis navium mercatoriarum ad flumen* Lena *a. 1933*]. Bull. Arct., Inst., 6/7, 290-292. Leningrad (1934). **a - 174**

Brief account of the voyage of three steamers to Nordwick Bay - mouth of the River Lena -, and to the Tixi Bay, being escorted through the ice by the ice-breaker « Krassin ». The note is especially concerned with the condition of the ice on the route of the vessels.

**An.** - Revue de la navigation dans les eaux arctiques en 1934 [*De navigatione per maria arctica a. 1934*]. (En russe). Bull. Arct. Inst., 1/2, 1-4. Leningrad (1935). **a - 175**

Après un court résumé du sauvetage des naufragés du brise-glace « Tchéljouskine » un aperçu des principaux objectifs des expéditions polaires maritimes effectuées sur les brise-glace « Lidtke », « Yermak », « Krassine », « Malyghine », « Roussanov », « Saddo » et « Sibirjakov », ainsi que sur le navire-hydrographe « Taymyr » est donné d'une liste des principaux évènements de l'exploration polaire soviétique depuis 1928 jusqu'à 1934.

**An.** - Trouvaille des documents de Nagourskij et Abrjaschitov [*De inventis documentis ad* Nogurskij *et* Abrjaschitov *pertinentibus*]. (En russe). Bull. Arct. Inst., 1/2, 24-25. Leningrad (1935). **a - 176**

Texte de deux documents qui constituent un témoignage du premier vol en avion au-dessus de l'Arctique effectué en 1914 par l'aviateur militaire russe Nagourskij à la recherche de l'expédition de Sedov, Roussanov et Broussilov.

**An.** - Nordostdurchfahrt des Russischen Eisbrechers « Sibirjakow » [*Traiectus maritimus a Septentrione ad Occidentem navis glacieiruptricis russae* « Sibirjakov »]. Geogr. Zeitschr., 5, 305-306. Leipzig (1933). **a - 177**

**An.** - Résultats de l'hivernage de l'expédition de la Lena [*De navigatione ad flumen* Lena. *Resultatus ex hiematione prope insulas* Samuel]. (En russe). Meteor. Vestn., 8/9, 283-284. Leningrad. **a - 178**

Description de l'hivernage près de l'Ile Samuel.

**An.** - Le voyage des sous-marins italiens dans la partie Nord de l'Océan Atlantique [*De navigatione ab italicis navibus submergibilibus peracta in Oceanum Atlanticum septentrionalem*]. (En russe). 2 fig., Morsk. Sbornik, 6, 131-135. Leningrad (1934). **a - 179**

Traduction abrégée de l'italien de l'article *La crociera Nord-Atlantica del gruppo Balilla*, publié dans le n° de janvier 1934 de la « Rivista Marittima ». Voyage des sous-marins au détroit de Davis.

**An.** - Les héros du « Tchéljouskine » [*Heroici nautae navis* « Tceljuskin »]. (En russe). Naschi Dostizh., 4, 2-4. Moskva (1934). **a - 180**

**An.** - The North-East Passage [*Transitus nordorientalis*]. Nature Suppl., CXXXV, 3419, 787. London (1935). **a - 181**

Short note on the passing of the North- East Passage made by two ice-breakers in a remarkably short time.

**An.** - L'épopée du « Tchéljouskine » [*Epos navis* « Tceljuskin »]. Rev. Econ. URSS, 6, 138. Paris. **a - 182**

## Navigatio plana et litorea – Navigatio astronomica – Instrumenta – Tabulae – Ephemerides – Navigatio radiogoniometrica – Studia pro navigatione.

**Allner W.** - Ueber die Zeit der Vormittagshöhe [*De hora altitudinis antemeridianae*]. 1 Taf., 2 Tab., Seewart, IV, 2, 73-76. Hamburg (1935). **a - 183**

Vf. bespricht wieviel vorher die Vormittagshöhe genommen werden darf, damit bei einer unbekannten Versetzung (und einem möglichen Höhenfehler) die Unsicherheit des Mittagsortes am kleinsten bleibt.

**Andrews Loring B.** - The Astronomy of Navigation [*De astronomia artis navigandi*]. Scient. Monthly, April, 360-363. New York (1935). **a - 184**

Radio talk explaining in easy form the importance of astronomy for navigation and the methods of determination of the point by means of observation of the stars.

**Andrissi G. L. & Tosi A.** - Planetario tascabile Hoepli. [*Planetarium* Hoepli *manuale*]. Un atlante, 1 vol., 1 opuscolo. U. Hoepli. Milano (1935). **a - 185**

Elementi di Astronomia, Tabelle ed Effemeridi per l’uso del Planetario. Cos’è e come si usa il Planetario.

**Barlow E. W.** - Deceptions of Vision Due to Atmospheric Conditions at Sea [*De erratis visionibus, condicionum atmosphaericarum marinarum causa*]. 14 figs., Mar. Obs. XII, 117, 14-19. London (1935). **a - 186**

Refraction of light by the atmosphere. Normal refraction. Distinction between abnormal refraction and mirage. Abnormal refraction. Types of abnormal refraction. Superior mirage. Relation of fog to mirage. Looming. Inferior mirage. Fata morgana. Historical.

**Bemporad Giulio** - Su un particolare errore sistematico che può presentarsi nelle registrazioni cronografiche [*De regestis datis chronometricis deque errore systhematico peculiari*]. 2 fig., Mem. Soc. Astr. It., III, 3, 293-302. Milano (1934). **a - 187**

Si mette in evidenza l’esistenza di un errore di eccentricità nella ruota di scappamento dell’orologio Riefler dell’Osservatorio di Torino, ciò che determina un errore sistematico nella registrazione cronografica dei tempi dell’orologio stesso.

**Blich K.** - Kompensering av Radiopeilapparatur [*De compensatione aliquorum apparatuum radiogoniometricorum*]. Tidskr. f. Sjövesen, apr., 139-147. Horten (1934). **a - 188**

**Bosch J.** - Nuevo metodo de determinar la altura de un astro [*Methodus nova ad calculandam altitudinem stellarum*]. Rev. Gen. de Marina, LVII, sept., oct., nov. Madrid (1934). **a - 189**

**Bowen Frank C.** - New Step Toward Fog Elimination [*De progressibus in caligine vitanda*]. Naut. Gaz., CXXV, 6, 14, New York (1935). **a - 190**

Description of a new type of fog beacon invented by Lesli Toplis, London, whose installation has been approved by the Port of London Authority. Greater demand of Marine Training Establishments.

**Brown, Son & Ferguson Edit.** - Astronomical Ephemeris and Nautical Almanac [*Ephemerides astronomicae, manachus nauticus*]. Tables, 608 pp., Brown, Son & Ferguson, Glasgow (1934). **a - 191**

The present volume contains all necessary information for the sun, moon, stars, and planets grouped by months. It gives also the mean places of stars, 1935; right ascension and declination of selected fixed stars; moonrise and moonset, phases of the moon, etc.

**Brutel de la Rivière B.** - Eenige beschouwingen over de ’Kleine Zeewart [*Considerationes de parva navigatione maritima*]. Tijdschr. voor Econ. Geogr., XIV, 15 nov., 333-335. ’s–Gravenhage (1933). **a - 192**

**Burgess J. Tom.** - Knots, Ties & Splices [*De nodis, ligaturis, plumbaturis*]. E. P. Dutton & Co. New York (1934). **a - 193**

A handbook for all who handle ropes. Revised and rewritten by Commander J. Irving.

**Caldo Lorenzo & Sconzo Pasquale** - Misure del diametro orizzontale del Sole [*De mensuris diametri horizontalis Solis*]. Boll. Soc. Sc. Nat. ed Econ., XV (1933), 19-23. Palermo (1934). **a - 194**

Si dà specificamente conto delle misure del diametro solare eseguite all’Osservatorio di Palermo nell’anno 1932. I risultati delle osservazioni non consentono ancora, per la scarsità del materiale raccolto, emettere un qualsiasi giudizio intorno alla variabilità del diametro solare.

**Cañete (de) del Pinar** - Observaciones de precision con el sextante [*De perfectis observationibus peragendis, sextantis auxilio*]. Fig. e tav., 159 pp., Observatorio de Marina. San Fernando (1934). **a - 195**

Seconda edizione sull’impiego del sestante per osservazioni di precisione. L’opera fu redatta per la prima volta nel 1895: espone in dettaglio il metodo di Gauss delle altezze eguali e dà molti esempi di calcoli nonchè una teoria degli errori del sestante.

**Castagnaro Michele** - Osservazioni inerenti allo spostamento della circonferenza d’altezza causato da un errore del cronometro [*De circumferentia altitudinis. Quaestio de eius amotione, erroris chronometrici causa*]. 8 fig., Riv. Maritt., LVII, suppl. tecnico, fasc. luglio-agosto, 49-57. Roma (1934). **a - 196**

Disamina accurata di codesto errore prodotto da quello del cronometro, disamina non sempre fatta a fondo sui trattati. L’A., anzi, conclude che alcune asserzioni fatte comunemente non rispondono alla realtà.

**Clark E. S.** - An Inexpensive Handmade Sextant [*De sextante manufacto nulla impensa*]. 9 fig., U. S. Nav. Inst. Proc., LX, 377, 908-912. Annapolis, Md (1934). **a - 197**

Hints for the construction of a wooden frame sextant, the prize of which is Doll. 0.68. Materials and tools necessary for construction.

**Collins E. B.** - A New Formula for Azimuth [*De nova quadam formula azimuthali*]. U. S. Nav. Inst. Proc., LX, 377, 973. Annapolis (1934). **a - 198**

This formula, based on haversines, is: Haversine $Z = \sin (S - L) \sin (S - h) \sec h \sec L$. This haversine of the azimut is now taken directly from the tables. An example is given.

**Conrad Fritz** - Astronomische Ortsbestimmung und Kimmtiefenmessung auf See [*Puncti determinatio astronomica mensuraque depressionis horizontis ad mare*]. 40 Abb., 9 Taf., Veröff. Marineobserv. Wilhelmshaven, 7-111. Berlin (1933). **a - 199**

I. Einleitung. II. Arbeitsplan, Beobachtungsgerät, Hilfspersonal. III. Methoden. IV. Die Kimmtiefen: 1. Statistische Untersuchung. 2. Ausgleichung. 3. Vergleich der Ergebnisse verschiedener Kimmtiefenuntersuchungen. V. Die astronomischen Beobachtungen: 1. Der terrestrische Schiffsort. 2. Das Material, seine Aufbreitung, sein Genauigkeitsgrad. 3. Ausgleichung. 4. Beziehung der Kimmabstände zu den meteorologischen Elementen. 5. Vergleich der Beobachtung und Berechnung der Kimmtiefen. VI. Zusammenfassung. – Literaturverzeichnis.

**Craven Francis S.** - Graphic Interpolation in Azimuth Tables [*Interpolatio graphica tabularum azimuthalium*]. 6 tables, U. S. Nav. Inst. Proc., LXI, 384, 222-228. Annapolis, Md. (1935). **a - 200**

Description of a graphic method of interpolation in azimuth tables, which is not only simple and free of mathematics, but also faster than arithmetical interpolation when solving a number of azimuths, as when preparing a time-azimuth-curve for swinging ship. The present exposition of the method is a demonstration through the solution of several problems, rather than an academic explanation. The method utilizes cross-section paper, and the illustrations of the problems solved were prepared with this kind of paper.

**Cugle Charles** - Cugle's Two–Minute Azimuths: Latitude 0º to 55º; Declination 0º to 23º; Same and Contrary Names [*Tabulae azimuthales*]. E. P. Dutton & Co. New York (1935). **a - 201**

Author gives an Azimuth Table which is interpolated so closely that he believes that the two-minute intervals of time will do away of all interpolations now required in the finding of Azimuths. The book is set in large plain type which can be read without the use of reading spectacles and is legible at night.

**De Pace V.** - I radiogoniometri [*De apparatibus radiogoniometricis*]. Alta Frequenza, 14 fig., III, 5, 598-621. Milano (1934). **a - 202**

Si dà cenno delle idee e dei principi da cui è derivata la radiogoniometria, e si mette in rilievo che questo ramo della radiotecnica trova nella nautica le sue applicazioni più importanti (determinazione del punto nave). Si richiamano poi i punti principali della teoria del radiogoniometro, con particolare riferimento ai radiogoniometri navali. Si tratteggia infine la teoria delle deviazioni nei rilevamenti radiogoniometrici, dovute all'influenza dello scafo e dei conduttori di bordo investiti dall'onda elettromagnetica della stazione da rilevare.

**Dijèvre** - Réflexions sur la navigation de demain [*De futura arte navigandi*]. Rev. Marit., août, 184-203. Paris (1934). **a - 203**

**Driencourt L.** - Le Planisphère de Mercator et la Navigation maritime ou aérienne par relèvements radiogoniométriques pris du bord [*D-planisphaerio Mercatoriano deque navigatione mari tima et aëria ex relevationibus radiogoniometricis in navi peractis*]. 1 pl., h. t., Ann. Hydrogr., XIII Ser. III, 87-97. Paris (1934). **a - 204**

Généralité sur le problème des projections utilisables pour le point du navire fait à l'aide de relèvements radiogoniométriques pris du bord. Formules à employer pour le calcul simultané par points des deux séries de courbes d'un calque spécial en projection de Mercator. Navigation dans les régions polaires. Formules pour le calcul des séries de courbes pour le calque dans ces régions.

**Egal André** - Mesure de la vitesse des vaisseaux marins, sous-marins, aériens par couples thermo-électriques compensés [*De navibus, submarinis, aëronavibus. Quaestio de dimensa velocitate per paria thermoelectrica compensata*]. 3 fig., Génie Civ., CVI, 12, 286-287. Paris (1935). **a - 205**

L'A. avait fait connaître précédemment une méthode de mesure de la vitesse des fluides et de l'énergie thermique qu'ils peuvent transporter avec des dispositifs, dans lesquels l'appareil est fixe et le liquide mobile. Dans la présente note il illustre l'application de son appareil dans un cas contraire, c.-à.-d. lorsque le fluide est fixe et l'appareil mobile, et plus précisément, en montant son dispositif sur un vaisseau marin, sous-marin ou aérien, et en réalisant ainsi un nouveau loch électrique.

**Estrada R.** - De Náutica astronomica. Rev. Gen. de Mar., LVII, julio y agosto. Madrid (1934). **a - 206**

**Estrada R.** - Panorama náutico astronómico [*Prospectus nauticus et astronomicus*]. Las Ciencias, II, 1. Madrid (1935). **a - 207**

**Fallot Maurice** - Les alliages fer-platine. Point de Curie et moments magnétiques [*De ferri cum platino mixtionibus. De puncto* Curie *deque momentis magneticis*]. 1 fig., C. R. Acad. Sc., CIC, 2, 128-129. Paris (1934). **a - 208**

Il s'agit des alliages réversibles et irréversibles suivant le % de platine.

**Fawcett R. P.** - The Cathode Ray Direction Finder [*De radiogoniometro cum radio cathodico*]. Naut. Magaz., Sept., 208-210. Glasgow (1934). **a - 209**

**Feldhusen W.** - Zur Vereinfachung der nautisch-astronomischen Rechenarbeit auf See [*De marinis calculis nautico-astronomicis ad simplicitatem ducendis*]. 2 Abb., 3 Taf., Seewart, IV, 1, 14-19. Deutsche Seew. Hamburg (1935). **a - 210**

Vf. macht einen Vergleich zwischen der Methode zur Vorausberechnung von Gestirnshöhen, die sich auf die Benutzung der Tafel über die « Aenderungen von Gestirnshöhen in einer Zeitminute » stützt und von welcher im Heft 4 des « Seewart », 3. Jahrg. berichtet wird, und der vom Vf. vorgeschlagenen Methode (s. H. 4 u. 5 des « Seewart », 1933), die eine « Sehnenmethode » ist. Der Vf. sucht hier die folgenden Fragen zu beantworten: 1. Wie gross sind die maximalen Fehler der beiden Methoden bei gleichem Stundenwinkelintervall ? und 2. Wie gross sind bei gleichem maximalem Fehler die zugehörigen Stundenwinkelintervalle ?

**Freiesleben H. C.** - Recherches sur la dépression de l'horizon [*Inquisitiones in depressionem horizontis*]. 2 fig., Rev. Hydrogr., XI, 2, 124-128. Monaco (1934). **a - 211**

Extrait de Der Seewart. 2, S. 60 Hamburg (1934). Aperçu de l'ensemble des recherches faites jusqu'ici sur la valeur de la dépression de l'horizon de la mer en fonction des diverses causes décelables avec les moyens dont on dispose à bord. Le contre-amiral dans la retraite Dr. Conrad a entrepris dernièrement des études à ce propos dont l'A. donne les résultats.

**Freiesleben H. C.** - Nautische Spezialrechenschieber [*Regula peculiaria pro calculis nauticis*]. 1 Taf. Seewart, III; 6, 262-267. Hamburg (1934). **a - 212**

Beschreibung des Baues und des Gebrauchs vom Azimutrechenstab von R. Nelting, welcher auf der Merkatorfunktion aufbaut; Schilderung der Position Line Rule von Bygrave, deren Zweck es ist, für die Standlinienbestimmung nach der Höhenmethode Höhe und Azimut zu berechnen, und der französischen Standortrechenmaschine Le Sort. Die vorliegenden Ausführungen zeigen verschiedene Möglichkeiten, das Rechnen nach Art eines Rechenschiebers durch besondere Konstruktionen für Navigationsrechnungen auszunützen.

**Gadow** - Azimut und Grosskreisberechnung [*De calculis azimuthalibus deque elementis circuli maximi*]. Seewart, 1, 1-8. Hamburg (1934). **a - 213**

**Giulietti Giulio** - Di una particolare applicazione di materiali magnetici presentanti alta permeabilità in campi magnetici deboli. Bussola acustica [*De quadam peculiari applicatione materiarum magneticarum, alta permeabilitate praeditarum, in campis magneticis debilibus. Buxida acustica*]. 3 fig., Rend. R. Ist. Lomb. Sc. e Lett., serie II, v. LXVII, 11/15, 498-502. Milano (1934). **a - 214**

Indicato il concetto base del dispositivo ideato dall'A. per la costruzione della sua bussola acustica, egli descrive l'apparecchio concretato ed indica i vari casi in cui può impiegarsi. Infine l'A. segnala che tale bussola si presta anche a raffronti di permeabilità magnetica tra metalli diversi e ad un particolare sfruttamento della corrente amplificata per azionare dispositivi elettromeccanici, destinati, per esempio, a manovre di direzione.

**Harms M.** - Zur Beobachtungstechnik des Libellensextanten [*Ratio sive technica observationum, sextantis libella praediti auxilio*]. Ann. d. Hydrogr., LXII, 1, 31-33. Berlin (1934). **a - 215**

Auslegung an Hand der von Herrn Dr. Michler mitgeteilten Beobachtungsreihen mit Hilfe des Libellensextanten (« Ann. d. Hydrogr. », 1933, S. 254), die zu gerade entgegengesetzten Folgerungen führt, mit besonderer Berücksichtigung des Gebrauches vom Libellensextanten in der Luftschiffahrt.

**Hernández J.** - La visión a través de la niebla [*Visus per caliginem*]. Rev. Gen. de Marina, LVII, marzo, abril y mayo. Madrid (1934). **a - 216**

**Hinkel Hulbert** - Longitude by H. O. 211 [*Tabulae longitudinis*]. U. S. Nav. Inst. Proc., LXI, 386, 499-500. Annapolis, Md. (1935). **a - 217**

The author recommends the equation

$$\csc\frac{t}{2} = \frac{\sec s \csc (s-h)}{\sec \varphi \csc p}$$

which, *mutatis mutandis*, is employed in astronomical navigation since a very long time.

**Huber Anton** - Kimmtiefenmessungen auf der Fahrt des Vermessungsschiffes « Meteor » im Sommer 1928 nach Island und Grönland [*De dimensa horizontis depressione inter navigationem navis* « Meteor », *aestate 1928, in Irlandiam et Groënlandiam*]. 3 Tab., Veröff. Mar. Observ. Wilhelmshaven, « Kimmtiefenmess. Reichsmarine », 10-16. Berlin (1930). **a - 218**

Bericht über die vom Vf. im Hochsommer 1928 auf der Reise des Vermessungsschiffes « Meteor » nach Island und Grönland ausgeführten Kimmtiefenbeobachtungen in Verbindung mit Messungen der Luft- und Wassertemperatur mit zwei Pulfrichschen Kimmtiefenmessern mit Trommelablesung. Einige Ausführungen über die Genauigkeit der Kimmtiefenmessungen und über die Faktoren, die sie beeinflussen. Schwankungen der Temperatur mit der Höhe. Nutzen der Temperaturmessung in Masthöhe zur Berechnung der Kimmtiefe oder eventuell zur Verbesserung der Korrektion.

**Hury C. & Taylor C. E.** - Navigational Compasses Gyro versus Magnetic [*Buxidae gyroscopicae in locum buxidarum magneticarum*]. Many text figs & figs. on pl. Journ. Am. Soc. Nav. Engrs., XLVI, 4, 417-450. Washington (1934). **a - 219**

After an historical review of navigational compasses there follows a small treatise on gyrocompasses.

**Immler W.** - Die Grad-Uhr [*Horologium in gradus divisum*]. 4 Tab., Ann. d. Hydrogr., LXIII, 6, 245-247. Berlin (1935). **a - 220**

Vf. schlägt vor, für astronomische Ortsbestimmungen ein Chronometer zu gebrauchen, welches, ähnlich wie Sekunden-, Minuten- und Stundenzeiger, ein grosses in Bogenminuten geteiltes Zifferblatt hat, ein zweites Zifferblatt mit den Zehnergraden, und ein drittes, das die Einergrade enthält, und gibt einige Beispiele der Ortsberechnungen mittels eines solchen Chronometerwerkes mit Gradzifferblatt an.

**Imperato I. E.** - Arte Navale [*Ars nautica*]. 2 vol., Hoepli. Milano (1934 & 1935). **a - 221**

**Jacobick K. J.** - Der Plath'sche Libellensextant in der Bordpraxis [*De sextante libella praedito e systhemate* Plath *quoad navigationis practicam*]. 1 Abb., 2 Tab., 1 Taf., Seewart, IV, 1, 10-14. Deutsche Seew. Hamburg (1935). **a - 222**

Vf. behauptet, dass der für die Luftnavigation mit gutem Erfolg von der Firma Plath herausgegebene Libellensextant in seiner heutigen Vollkommenheit auch die Nautiker der Seefahrt interessieren muss, und berichtet über die Ergebnisse einer Ausprobierung dieses Instrumentes an Bord in der Praxis, die er durchgeführt hat. Sämtliche Beobachtungen sind mit dem Trommelsextanten Nr. 13401 durchgeführt worden und haben gezeigt, dass der neue Libellensextant ein nautisches Instrument von grosser Wichtigkeit ist, welches unbedingt zur sicheren Navigierung beitragen wird.

**James Jules** - A Handy Aid to the Navigator [*Instrumentum quiddam practicum navigatoribus auxilium*]. 5 figs., U. S. Nav. Inst. Proc., LXI, 386, 493-495. Annapolis, Md. (1935). **a - 223**

Description of a mechanical application of a logarithmic scale printed on the bottom of Mooring and Manoeuvring Board n. 2665, which greatly facilitates its use and expands its field of applications. It makes available to all officers a handy device for the exact conversion of all sorts of units with no interpolation whatsoever. If adopted for navigational work and piloting, it will be found to be practically indispensable.

**Jansen Frank** - The Pratt Protractor and Plotting Scale [*Apparatus reportator e systhemate* Pratt *atque modulus ad delineandum*]. 5 figs., U. S. Nav. Inst., LX, 382, 1740-1744. Annapolis, Md. (1934). **a - 224**

Mr. Herbert Pratt, one of the Author's pupils at the University of Southern California, has invented an instrument which will enable the navigator not only to project the line of position but also to plot the line of position in his workbook or on a blank sheet of paper for any latitude from the equator to 60° north or south. Description and rules are given here.

**Jones Spencer H.** - Aluminium-Surfaced Mirrors in Astronomy [*De speculis superficie praeditis alluminica pro astronomia*]. Nature, CXXXIV, 3388, 522. London (1934). **a - 225**

On the probability that aluminium-surfaced mirrors will in time entirely displace silvered mirrors for astronomical purposes generally. Process perfected by R. Ritschl.

**Koch H.** - Die Schiffahrt im Eise. Ein Beitrag zur Fahrt in schwedischen Gewässern [*De navigatione per glacies. Contributio in navigationem per maria ad Suetiam pertinentia*]. 1 Taf., Seewart, IV, 2, 60-63. Hamburg (1935). **a - 226**

Massnahmen vor Verlassen des Hafens, bei Annäherung an das Eis und bei Antreffen von Eis. Regeln für das Zusammentreffen mit schwedischen Staatseisbrechern.

**Krutkow G.** - Notiz über das Rollen des Schiffes im Seegange [*Navis volutatio tempestatis causa. Nota*]. (In russ. u. deutsch). C. R. Acad. Sc. U. R. S. S., II, 3, 158-161. Léningrad (1934). **a - 227**

Ergebnisse der Beobachtungen des Vf. über die erzwungenen Rollschwingungen des Schiffes im Seegange, mit besonderer Berücksichtigung der Theorie der Brownschen Bewegung eines linearen Vibrators.

**Lambrecht** - Astronomisk Navigasjon [*Navigatio astronomica*]. Norsk Tidskr. f. Sjöv., Okt., 357-363. Horten (1934). **a - 228**

**Lange E.** - Auf– und Untergangszeiten der Sonne [*Tempus solis ortus solisque occasus*]. 1 Tab., 2 Taf., Ann. d. Hydrogr., LXIII, 5, 219. Berlin (1935). **a - 229**

Kurzer illustrierender Bericht über zwei von der Deutschen Seewarte herausgegebene Kurvenblätter, die es gestatten, für jeden Tag des Jahres und für jeden Ort zwischen 0° und 60° N.-Br. die mittleren Ortszeiten der Sonnenaufgänge, bzw. der Sonnenuntergänge zu entnehmen.

**Larchwood** - How the Echo Sounder Can Be Useful [*De scandalio acustico eiusque utilitate*]. Naut. Magaz., Apr., 318-320. Glasgow (1934). **a - 230**

**Leeuw (De) J. H.** - La refraction astronomique dans l'histoire [*De refractione astronomica apud historiam*]. Rev. Hydrogr., XII, 1, 145-150. (1935). **a - 231**

Extr. de De Zee, Le Helder, Août 1934, p. 447.

**Lugeon Jean** - Tables crépusculaires donnant l'altitude au zénith des rayons rasant du soleil pour toutes les latitudes de degré en degré [*Agitur de tabulis quae dicuntur tabulae crepusculares, altitudinem zenithalem indicantes radiorum radentium solis pro omnibus latitudinibus a gradu ad gradum*]. xxxvii tables, 438 pp., Inst. Météor. Pologne, Warszawa (1934). **a - 232**

Préface. Introduction. Méthode de calcul: *a*) considérations géodésiques; *b*) considérations astronomiques. Méthode d'élaboration des tables. Description des tables. Lever et coucher du soleil. Calcul de la déclinaison du soleil et de l'équation du temps. Tableaux de la déclinaison du soleil et de l'équation du temps pour l'année 1934. Quelques remarques concernant l'altitude, la réfraction, la parallaxe et la différence de l'angle horaire du centre et du bord supérieur du soleil. Tableaux des différences des angles horaires du centre et du bord supérieur du soleil. Tables crépusculaires.

**Marguet F.** - Sur la courbe d'égal azimut et son emploi en navigation [*De curvatura aequali praedita* azimut *eiusque utilitate quoad artem navigandi*]. 1 fig., C. R. Acad. Sc., CCI, 1, 36-38. Paris (1935). **a - 233**

Généralité sur les courbes d'azimut. Cas particuliers. Erreurs sur la position des courbes dans ces cas.

**Marguet F.** - Le Point azimutal [*Positio navis per* azimut]. Rev. Marit., janv., 60-65. Paris (1935). **a - 234**

**Martinez G.** - Note sul calcolo dei sistemi ottici. III. Sistemi di lenti sottili e applicazioni della teoria del Seidel [*De systhematis opticis eorumque calculo. Lentes subtiles et theoria Seideliana*]. Boll. dell'An. Ottica It., a. VIII, 4-5, 371-406. Firenze (1934). **a - 235**

Formole del 1° ordine per un sistema di lenti sottili. Aberrazioni di una sola lente sottile, con rifrazione centrale.

**Mason W. A.** - Fallacy of the Time Sight [*De erroribus in observationibus peragendis quoad coeli condiciones*]. 1 fig., U. S. Nav. Inst. Proc. LXI, 383, 76-79. Annapolis, Md. (1935). **a - 236**

In a previous article (U. S. Nav. Inst. Proc. June, 1934) the author has called the attention to the fact that the time sight is still in general use and preferred by a majority of officers of the U. S. Merchant Marine. In the present article he compares the results obtained from an observation for longitude worked out by means of a time sight, with observations worked out by using any of the line of position methods. He emphasizes the advantages of the last.

**Mason W. A.** - Two Old Lights Rejuvenated [*De instauratis duabus veteribus observationibus*]. 1 fig., U. S. Nav. Inst. Proc., LXI, 386, 523-526. Annapolis, Md. (1935). **a - 237**

The author rejuvenates the back sights, viz. the observations made with the sextant while facing the horizon in the opposite direction to that of the body observed. He also deals with the observations of sunset or of sunrise when the lower or upper limb of the sun is in the visible horizon. In such a case sextant is useless. Both these arguments were treated in old navigatory books.

**Masouin M. J.** - Manuel de navigation côtière. Préface de M. P. Renaud [*Liber manualis de navigatione ad litora*]. Nombr. fig., 1 pl., vi 253 pp., Gauthier-Villars. Paris (1934). **a - 238**

**Matousseviteh N.** - Conditions de la navigations dans le Nord [*De navigationis conditionibus in regionibus septentrionalibus*]. (En russe). Morsk. Sborn., 10, 114-118. Leningrad (1934). **a - 239**

Conditions de la navigation le long de la côte de Mourman et dans la Mer Blanche.

**Maxwell P. S. E.** - Sextants et Miroirs [*De sextantibus et speculis*]. 1 pl. avec 4 fig. h. t., Rev. Hydrogr., XI, 2, 139-140. Monaco (1934). **a - 240**

Sur les derniers progrès des sextants, particulièrement à l'égard des miroirs. L'Hydrographic Department de la Marine Royale Britannique a pris à l'essai des sextants hydrographiques et des sextants de navigation.

**Mc Isaacs Alvin C.** - Meridian Altitudes by « H. O. 208 » [*De meridianis altitudinibus per « H. O. 208 » calculatis*]. U. S. Nav. Inst. Proc., LXI, 385, 384. Annapolis, Md. (1935). **a - 241**

Author gives a rule to simplify the application of « Meridian altitude », which is the title for a short and simple form to compute latitude, given by Dreisonstock in « H. O. 208 ».

**Meldau H.** - Der Anschützkreiselkompass, Selbsteuer und Kursschreiber [*Buxidae gyroscopicae autoregulatae quae cursum maritimum in tabulis referunt, a Societate* Anschütz *constructae*]. 44 Abb., 84 S., Verl. A. Geist, Bremen (1935). **a - 242**

Eine wesentlich neue selbständige Fassung der bekannten Darstellung des Kreiselkompasswesens im Lehrbuch der Navigation von Meldau und Steppes, 1931. Neu ist bloss ein Absatz über die Zahlenverhältnisse im Kreiselkompass, die die begrifflichen Zusammenhänge zweckmässig erweitern.

**Melentiev P. V.** - Nomographie [*Nomographia*] (En russe). Moscou (1933). **a - 243**

**Michler Herbert** - Zur Kenntnis der Luftbewegung in Schiffsräumen. Beitrag zur Laderaum–Klimatologie [*De aëris motibus cognoscendis in navis partibus interioribus*]. 1 Taf. a. T., Ann. d. Hydrogr., LXII, 11, 457–461. Berlin (1934). **a - 244**

Ergebnisse von Untersuchungen über die Luftbewegung im Laderaum der Schiffe, in ihrer Abhängigkeit vom Lüfter, der Zuführung frischer Luft und bzw. der Umwälzung der Raumluft. Es wurden Messungen der Wirkung dieser verschiedenen Faktoren ausgeführt, und ausserdem die wesentlichen Einflüsse auf Richtung und Stärke des Luftzuges sowie auf die Ausdehnung der Totluftfelder der verschiedenartigen Anordnung der Lüfter, insbesondere ihrer Einführung in Laderäume, ferner auch der Menge, Stauung und Art der Ladung des betreffenden Raumes untersucht.

**Monfraix M.** - Étude synthétique des compas gyrostatiques [*Explicatio per synthesim buxidae gyroscopicae*]. Bull. Ass. Techn. Mar. & Aéron. XXXIII, 109–133, Paris (1934). **a - 245**

Caractéristique des systèmes gyroscopiques, description de divers types.

**Mueller Hans** - Ueber die Behandlung von Mittelwerten aus einem Beobachtungsmaterial von geringem Umfang. 3. Mitteilung mit einem Abschnitt über Theorie und Praxis der Korrelationsrechnung [*Agitur de confectione valorum mediorum ab observationibus parvi momenti provenientium. Communicatio in qua paragraphus est adiunctus de theoria et practica quoad calculum correlationum*]. 5 Tab., 1 Taf., Ann. d. Hydrogr., LXIII, 6, 224-234. Berlin (1935). **a - 246**

Vf. gibt noch einmal ein voll durchgerechnetes Beispiel über die Anwendungsweise des P-Kriteriums (S.: « Ann. Hydr. », 1934, S. 418) mit besonderer Berücksichtigung der mittleren Fehler bei grossem Beobachtungsmaterial, bespricht das Verhältnis zwischen dem Regressionskoeffizienten und seinem mittleren Fehler und illustriert die Anwendung seines Kriteriums auch bei einem kleinen Beobachtungsmaterial. Nach diesem Abstecher zu den Fragen, die bei der Arbeit mit Korrelation auftauchen, gibt Vf. einige Methoden an, die die ausführliche Berechnung des Korrelationskoeffizienten stark erleichtern und doch allgemein nicht an Genauigkeit einbüssen.

**Mukiyama Daizô** - A Method of Sending Light Signals through Fog [*De signalationibus luminescentibus inter caliginem emittendis*]. 3 figs. Proc. Imp. Acad., X, 7, 407-409. Tokyo (1934). **a - 247**

An important study on the elimination of the scattering of the sun's radiation. The author intends to apply his method to the lighthouse system for ships and aircrafts of foggy lands.

**Petersen P.** - Meteorologische Navigation im Lichte der synoptischen Wetterkarte [*De meteorologia pro navigatione, tabulae synopticae meteorologicae auxilio*]. Seewart, IV, 2, 55-59. Hamburg (1935). **a - 248**

Weitere Beispiele (S.: « Hansa » 20, 17/V, 1930; « Der Seewart », 3, 1933 u. 3, 1934), welche es gestatten, den Wert der meteorologischen Navigation durchzuprüfen. Vf. berichtet über meteorologische Navigation an Hand von einer Auswahl der in den synoptischen Wetterkarten niedergelegten Wetterlagen während der sturmreichsten Monate des Jahres, Dezember bis Ende Februar.

**Pinto Leite** - L'astronomie nautique au Portugal à l'époque des grandes découvertes [*De astronomia nautica Lusitana aetate magnarum inventionum geographicarum*]. L'Astronomie, XLIX juin. Paris (1933). **a - 249**

**Podmore J. C.** - The Slide Rule for Ship's Officers [*Regulum calculatorium ad usum navium praefectorum*]. Figs. and tables, 1 pl., viii + 113 pp., Brown, Son & Ferguson, Ltd. Glasgow (1934). **a - 250**

A treatise on slide rules in general, and applications and examples of calculations for cargo, navigation and general use on board a ship both in port and at sea.

**Poisson H.** - Routes de terre et de mer à Madagascar [*Cursus maritimi et terrestres ad insulam* Madagascar]. Bull. Agence Générale des Col., XXVIe an., mai, 741-809. Paris (1933). **a - 251**

L'A. a accompli des nombreux voyages le long des côtes de Madagascar, et aux îles Mayotte et Europa.

**Prato Vittorio** - Nota circa la determinazione automatica del punto-nave [*De navis puncti determinatione automatica*]. Riv. Maritt., a. LXVII, 10, 91. Roma (1934). **a - 252**

L'A. corregge un'inesattezza in cui era incorso in un precedente articolo a riguardo di un giroscopio per la determinazione continua ed automatica delle coordinate geografiche del punto-nave.

**Romañá Antonio** - Medio siglo de progreso en la determinación de los elementos del movimiento del sol en el espacio, por el método de las velocidades radiales. I y II [*De progressibus semisecularibus in determinandis elementis quoad solis motus spatiales, methodus velocitatum radialium*

*auxilio. II Nota*]. 5 fig., 2 tab., Ibérica, 1067, 248-256. Barcelona (1935). **a - 253**

Continuación de un articulo publicado en el nº 1056, p. 59. *e*) Estudio del movimiento del Sol, deducido de las velocidades radiales de los diferentes tipos espectrales. *f*) Estudio del movimiento del Sol, deducido de las velocidades radiales de enjambres globulares y nebulosas extragalácticas. *g*) Estudio del efecto K. (Continuarà).

**Rust Armistead** - The Range or Direction Finder [*Apparatus distantiae et directionis indicator*]. Naut. Magaz, April. 300-303. Glasgow (1934). **a - 254**

**Schroeder Gustav** - Zur Vereinfachung der astronomischen Rechenarbeit auf See [*De calculis astronomicis marinis in simplicitatem reducendis*]. 1 fig., Seewart, IV, 2, 63-66. Hamburg (1935). **a - 255**

Einige Betrachtungen über die Anregungen von W. Felghusen und F. Wellmann über die Vereinfachung der nautisch-astronomischen Rechenarbeit auf See, welche im « Seewart » veröffentlicht worden sind. Vf. wundert sich, dass keiner der beiden Verfasser die Meridianbreite erwähnt hat und illustriert im vorliegenden Vortrage die Rechenarbeit bei dieser Breite, die « am einfachsten ist ».

**Severino Giuseppe** - Alcune considerazioni intorno al tracciamento della retta d'azimut [*Considerationes de recta delineanda azimuthali*]. Riv. Maritt., LVII, suppl. tecnico, fasc. luglio-agosto, 59-71. Roma (1934). **a - 256**

Breve studio storico-scientifico sul tracciamento della retta d'azimut. L'A. mette in evidenza la priorità del metodo del Comandante Modena, ne mette in rilievo i vantaggi e mostra una semplificazione del metodo stesso.

**Shankland E. C.** - Marconi's Wireless Pilot [*Apparatus radio-pilotus e systhemate* Marconi]. 1 fig., Nature, CXXXIV, 3384, 387-388. London (1934). **a - 257**

On the latest experiences of Marconi on wireless fog beacons. The last apparatus capable to provide a' bee' line course for a ship entering harbour in fog, and whose transmitter may be swung in azimuth to provide a silent zone in order that a ship may navigate at right angles, if necessary.

**Sigatchov N. I.** - Utilisation des instruments électriques de navigation dans les hautes latitudes [*Quo modo utitur instrumentis electricis pro navigatione in altis latitudinibus*]. (En russe). 4 diagr., Morsk. Sborn., 7, 88-97. Leningrad (1934). **a - 258**

**Taylor C. E.** - Simplified Altitude and Azimuth Tables [*Tabulae altazimutales simpliciores factae*]. U. S. Nav. Inst. Proc., LXI, 389, 928-933. Annapolis, Md. (1935). **a - 259**

The author has undertaken a compilation of tables that combine the advantages of the Ogura altitude tables and the Dreisonstok tables for azimuth. The arrangement of tables is shown in accompanying illustrations.

**Thorade A.** - Bericht über Kimmtiefenbeobachtungen an Bord des Vermessungsschiffes « Meteor » auf der Islandfahrt, 29. VII. 6. IX. 1929 [*Relatio de observationibus quoad horizontis depressionem in navi peractis nomine* « Meteor », *navigatione in Islandiam perdurante, a die 29 Julii ad diem 6 Octobris 1929*]. 14 Abb., 3 Tab., Veröff. Mar. Observ. Wilhelmshaven. « Kimmtiefenmess. Reichsmarine », 17-32. Berlin (1930). **a - 260**

I. Instrumente und Beobachtungsmethoden: 1. Kimmtiefenmessungen. 2. Temperaturbeobachtungen. II. Ergebnisse der Beobachtungen: 1. Kimmtiefenmessungen auf der Brücke. Kritische Bemerkungen: Abweichung der vom Vf. abgeleiteten Formeln von denen, die Kohlschütter und Huber aufstellten. Zusammenfassend behauptet Vf.: A. eine Abhängigkeit der Kimmtiefe vom Unterschiede der Temperatur in Augeshöhe und der Wassertemperatur ist nur sehr undeutlich oder gar nicht zu erkennen, B. Massgebend ist der Temperaturunterschied zwischen der Wasseroberfläche und 1 m. darüber; C. Es scheint, als ob dieser Unterschied für Beobachtungen auf der Schanze doppelt so wirksam wäre als für Beobachtungen auf der Brücke und im Mars. D. Die Berücksichtigung der Temperaturunterschiede bedeutet nur eine ganz geringe Verbesserung der Formel für die Kimmtiefe; E. Letztere beruht auf der nicht gerechtfertigten Annahme, dass die Temperatur sich proportional der Höhe ändere. III. Ausblick: 1. Kimmtiefen; 2. Temperaturschichtung.

**Ullrich W.** - Die wichtigsten Regeln für die Behandlung der Magnetkompasse an Bord [*Regulae majoris momenti circa buxidas in navibus constitutas*]. Seewart, IV, 1, 2-6. Deutsche Seew. Hamburg (1935). **a - 261**

Zusammenstellung in 10 Regeln der wichtigsten Punkte für die Behandlung von Magnetkompassen an Bord; im Anschluss an dieselbe werden noch einige kurze Erläuterungen gegeben, soweit solche zum besseren Verständnis der Regeln notwendig erscheinen.

**Van Patten H. T.** - The Slide Rule in Navigation [*Regulum logarithmicum pro navigatione*]. U. S. Nav. Inst. Proc., LX, 378, 1104. Annapolis Md. (1934). **a - 262**

The A. emphasizes the use of the slide rule for navigation purposes.

**Waterman John B.** - Gulf Essential Trade Routes [*Cursus commercialis maximi momenti ad Sinum Mexicanum*]. 6 figs., Naut. Gaz., CXXIV, 11, 7-10. New York (1934). **a - 263**

Outstanding factors in traffic and transportation. Divisions of the coastal section of the Gulf: Texas and Sabine-New Orlans-Gulport, Mobile, Pensacola, Panama City and Tampa. Most important steamship lines. Steamships « West Hika » and « Topa Topa ».

**Weems P. V. H.** - Comparison of British and American Almanacs [*Comparatio inter ephemerides Anglicas et ephemerides Americanas*]. Naut. Magaz., March., 231-237. Glasgow (1934). **a - 264**

**Weems P. V. H.** - Autour de l'Atlantique avec les Lindbergh [*Agitur de aërionavigatione circum Atlanticum una cum* Lindbergh]. 1 pl. h. t., Rev. Hydrogr., XI, 2, 115-118. Monaco (1934). **a - 265**

Moyens employés pendant la navigation, intéressant aussi les navigateurs de surface. Cartes marines et cartes topographiques. Instruments utilisés. Equipement radioélectrique. Le radiogoniomètre. Equipement pour la navigation astronomique. Précision de l'estime. Schème du parcours Bathurst-Natal avec exemple de calcul d'observation.

**Weems P. V. H.** - The Terrestrial Triangle [*Triangulus terrestris*]. 2 figs., U. S. Nav. Inst. Proc., LXI, 386, 533-534. Annapolis, Md. (1935). **a - 266**

After having pointed out that, since the end of the trail in celestial navigation is the plotting of position lines on a terrestrial chart, all celestial triangle calculations must first be converted to the terms and units used with terrestrial chart work, author illustrates, on hand of 2 graphs, a simple method for tabulating the latitudes and the longitudes of the geographical or sub-stellar position of heavenly bodies rather than the Greenwich hour angles and declination. In a graph he shows the earth and celestial sphere showing altitude, latitude, and the relation between the celestial triangle and the terrestrial triangle.

**Whitehead T. N.** - The Design and Use of Instruments and Accurate Mechanism [*De praecisione in instrumentis mechanicis construendis. Agitur etiam de eorum utilitate*]. xii 283 pp., The Macmillan Co., New York (1934). **a - 267**

The book is arranged in two parts. The first is devoted to a discussion of the various errors and the second to traits of design. The work is useful alike to the designer, to the instrument-maker, and to the operator or observer. There is much suggested in the matter of mechanical construction especially in Part II on design that is easy of apprehension to any mechanic, although a casual perusal of Part I is likely to discourage the reader not versed in mathematics. Descriptions of instruments, of methods of constructing them, all of which appear frequently throughout the volume, are very interesting to the user of finer instruments.

**Wolf E.** - Compensaçao rigorosa das Observaçoes em Alturas Iguaes para a determinaçao da Latitude-Hora [*Compensatio rigurosa observationum quoad aequales altitudines, ad temporis latitudinem determinanda*]. Anais Hidrogr., 1, 171-177. Rio de Janeiro (1934). **a - 268**

**Bureau Hydrographique International** - Abbreviations Used on Charts. U. S. Coast and Geodetic Survey - Abréviations employées sur les cartes. U. S. Coast and Geodetic Survey [*De abbreviationibus quibus utitur in tabulis ad* U. S. Coast and Geodetic Survey *pertinentibus*]. (In Engl., & French). Bull. Hydr. Int., V, 96. Monaco (1934). **a - 269**

Texte de la note que porte la carte n° 567 du Coast and Geodetic Survey (Wicomico River); Juillet 1934 en anglais et français.

**Deutsche Seewarte** - Bericht über die 57. Chronometer-Wettbewerbprüfung (1933/34) in der Deutschen Seewarte [*Relatio de LVII a comprobatione chronometrorum (1933/34) in* Deutsche Seewarte]. 1 Tab., Ann. d. Hydrogr., LXII, 6, 257-259. Berlin (1934). **a - 270**

Die Ergebnisse der Untersuchungen von 21 Chronometern sind in einer Tabelle zusammengestellt.

**Deutsche Seewarte** - Azimut des Nordsterns [*Arctos minor eiusque* Azimuth]. 1 Taf., Seewart, III, 6, 275-276. Deutsche Seewarte. Hamburg (1934). **a - 271**

Veröffentlichung der Tafel 3 des Nautischen Jahrbuches: Azimut des Nordsterns in einer neuen Form, die zweckmässiger ist und die Benutzung der Tafel vereinfacht. Die Aufnahme der Tafel in der hier vorliegenden Form ist für die kommenden Jahrgänge des Nautischen Jahrbuchs in Aussicht genommen.

**Deutsche Seewarte** - Beiträge zur Küstenkunde: Zambuanga [*Contributiones in litora studenda:* Zambuanga]. 2 fig., 1 tab., Seewart, III, 6, 278-288. Deutsche Seewarte. Hamburg (1934). **a - 272**

Bericht über Landmarken, Ansteuerung, Leuchtfeuer, Lotsen und Schlepper, Quarantäne, Ankerplatz auf der Reede, Gezeiten, Wind und Wetter, Klima, Hafenanlagen, Stromrichtungsanzeiger, Dockanlagen, Handelsverkehr, Schiffsausrüstung und telegraphische Verbindungen von Zambuanga, 6°54′ N-Br und 122°5′ O-Lg, auf dem süd-westlichen Ausläufer der Mindanao Insel, auf der Südspitze der Zambuanga Halbinsel, an der Basilan Strasse. Die Angaben sind auf Grund eines Informationsmaterials verschiedener Herkunft zusammengestellt worden.

**Hydrographic Service** (Libri novi). Tokyo (1933-34 & 1934-35).
( — ) New Tables Astronomical Navigation.
( — ) Nautical Almanac, 1934. **a - 273**

**Institut fuer Meereskunde** - Das Meer. Band III. Tiefseebuch [*De mari. Vol. III$^{um}$. Oceani liber*]. Inst. Meeresk. Berlin (1934). **a - 274**

**International Hydrographic Office. Bureau Hydrographique International** - Exhibition of Instruments. Exposition d'Instruments [*Expositio instrumentorum nauticorum*]. Int. Hydrogr. Bull., 1, 1-2. Monaco (1935). **a - 275**

Liste de quelques instruments déjà parvenus au Bureau Hydrographique International de l'Angleterre et qui forment le premier noyau de l'exposition permanente de divers instruments modernes utilisés pour les opérations d'hydrographie, pour la météorologie et pour la navigation.

**International Hydrographic Office. Bureau Hydrographique International** - A Standardized Form of Notices to Mariners proposed by the Directing Committee of the I. H. B. Modèle-type d'Avis aux Navigateurs proposé par le Comité de Direction du B. H. I. [*Monitiones ad usum navigatorum. Liber-typus commendatus a Directione Officii Hydrographici Internationalis*]. (In Engl. & French). Int. Hydrogr. Bull. 1, 12. Monaco (1935). **a - 276**

Information au sujet des réponses parvenues au Bureau Hydrographique International à sa Lettre–Circulaire n° 1-H de 1934.

**Istituto Idrografico della Regia Marina** - Effemeridi astronomiche ad uso dei naviganti per l'anno 1935 [*Ephemerides astronomicae ad usum navigatorum, a. 1935*]. vii-217 pp., Tip. dell'Ist. Idrogr. R. Marina. Genova (1934). **a - 277**

Il volume consta di due parti: nella prima si trovano riuniti gli elementi relativi al Sole, alla Luna ed ai grandi pianeti, poi quelli relativi alle stelle fisse, ed un breve accenno agli ecclissi di Sole e di Luna. La seconda parte contiene diverse tavole di uso corrente nei calcoli della navigazione astronomica. Tutte le *date* e le *ore* a cui si riferiscono gli elementi, comprese le ore sideree nelle tavole per i calcoli di azimut e latitudine con osservazioni della Polare, sono espresse in *tempo civile.*

**Marine Observer** - Marine Meteorology and Safe Navigation [*De meteorologia marina deque securitate in navigatione*]. Mar. Obs., XII, 117, 28-29. London (1935). **a - 278**

Extracts from Merchant Shipping (Safety and Load Line Conventions) Act, 1932. First Schedule. International Convention for the Safety of Life at Sea, 1929.

**Marine Observer** - The Marine Observer's Log [*Ephemeris nautica ad « Marine Observer » pertinens*]. 12 figs., Mar. Obs., XII. London (1935). **a - 279**

N. 117 (January, February, March).

Ice visibility at night and in a fog. The marked change in bird life which is a fairly good indication of the approach to pack ice in the Arctic and the Antarctic. - Butterflies observed in South Atlantic Ocean at a distance from nearest land of 450 miles. - Giant water snake seen in the Indian Ocean. - Photographs of mist rising on edge of Gulf Stream. - Cloud photographs at South Orkneys and South Shetlands. - Discoloured water (Peruvian waters). - Phosphorescent sea (Arabian Sea and Gulf of Aden, Caribbean Sea). - St. Elmo's fire (North Atlantic). - Hail squalls and St. Elmo's fire. - Fogbows (North Pacific Ocean). - Zodiacal light. (North Atlantic Ocean). - Refraction, sun and moon. (River Plate). - Lunar halos observed at sea. (North Atlantic Ocean). - Meteors observed at sea. (South Indian Ocean. South Pacific Ocean. Arabian Sea).

N° 118 (April, May, June).

Phosphorescence (Equatorial Atlantic Ocean) Statics (Western North Atlantic Ocean). Thunderstorm. (North Pacific, Indian Ocean, South African Waters, Caribbean Sea). Iridescent Cloud. (Madras). Lunar Rainbow. (North Atlantic Ocean). Abnormal Refraction. (Gulf of Aden, Straits of Juan de Fuca, Bay of Bengal). Meteors. (Mediterranean).

N° 119 (July, August, September).

Current. (South Georgia, Easterly Set near Cape Verde Arabian Sea, South West Monsoon Season). Tide Rip. (Manipa Strait). Phosphorescence. (Arabian Sea, Malabar Coast, Off Coast of Portugal). Whales. (Coast of Ceylon). Abnormal Magnetic Variation. (Jurien Bay, Western Australia). Volcanic Islet. (Sunda Strait). Submarine Volcano. (Japanese Waters). Floating Pumice Stone. (Japanese Waters). Discoloured Rain. (Buenos Aires). Hurricane. (Spencer Gulf). Whirlwind. (Singapore). Mirage. (Off Cape Finisterre). Lunar Halo and Corona. (North Pacific Ocean). Partial Eclipse of the Moon. (South Pacific). Sand Spouts. (Red Sea). Meteors. (North Atlantic Ocean, Gulf of Guinea). Waterspout. (Carribbean Sea).

N° 120 (October, November, December).

Southern Ocean Ice. Heron at Sea. (North Atlantic). Asuncion Island. (North Pacific). Magnetic Disturbance. (South Indian Ocean). Volcanic Eruption. (Japanese Waters). Submarine Earthquake. (North Pacific). Thunderstorm. (North Atlantic). Typhoon. (China Seas). Cloud Formation. (Peruvian Coast). Mirage. (East Coast of Australia). Solar Halo. (West Coast of South America). Waterspouts. (Mediterranean Sea). Meteor. (Gulf of Aden).

**Navy Department Bureau of Construction and Repair** - The Prediction of Speed and Power of Ships by Methods in Use at the United States Experimental Model Basin Washington [*De navium velocitate atque vi providendis per methodus quibus utitur in bacino typico experimentali ad Americae Status Foederatos pertinente*]. C. and R. Bull, 7, U. S. Govmt. Print. Off. Washington (1933). **a - 280**

**Observatorio astronomico de Lisboa (Tapada)** - Dados astronómicos par os almanaques de 1935 para Portugal [*Dati astronomici pro manachis Lusitanis a. 1935*]. 5–40, Impr. Nacion. Lisboa (1934). **a - 281**

Hora legal - Feriados nacionais - Posiçao do Observatório - Símbolos - Constantes astromómicas - Eras cronológicas - Cômputo gregoriano - Calendàrio israelita - Calendàrio moslémico - Fases da Lua - Apogeu e perigeu lunares e distancias da Lua à Terra - Comêço das estaçoes - Eclipses - Crepùsculos, comprimento do dia, alturas e azimutes do Sol - Nascer e pôr do Sol - Correcçoes para o Pôrto, Coimbra e Faro - Nascer e pôr do Sol em Loanda e Lourenço Marques - Hora legal ao meio-dia verdadeiro - Hora sideral à meia-noite legal - Nascer e pôr da Lua - Visibilidade dos planetas - Calendàrio dos meses e semanas. Fenómenos astronómicos.

**Osservatorio (R.) astronomico di Roma.** Calendario per l'anno 1935–XIII [*Kalendarium pro a. 1935*], alcune fig., 136 pp., Coop. Tipogr. Mareggiani, Nicola Zanichelli, Edit. Bologna (1935). **a - 282**

**Osservatorio (R.) astronomico di Trieste** - Annuario 1935–XIII [*Annuarium 1935*], alcune fig., 67 pp., Arti Grafiche L. Smolars e Nipote. Trieste (1934). **a - 283**

**U. S. Naval Observatory** - The American Nautical Almanac for the Year 1935 [*Manachus nauticus Americanus 1935*]. U. S. Govmt. Print. Off. Washington (1934). **a - 284**

**U. S. Naval Observatory** - The American Ephemeris and Nautical Almanac for the Year 1936 [*Ephemerides manachusque nauticus, a. 1936*]. xviii + 848. Washington (1934). **a - 285**

**J. D. N.** - Méthode pour porter graphiquement le point au lieu d'utiliser le stigmographe [*Methodus puncti delineandi sine ullo stigmographi auxilio*]. 1 fig., Rev. Hydrogr., XI, 2, 205–206. Monaco (1934). **a - 286**

Procédé extrait des Wrinkles in Practical Navigation de Capt. Lecky, œuvre bien connue par tous les marins du monde (pages 157 à 164 de la 21$^{me}$ édit.). Des recettes analogues ont été données dans cette même Revue (V. vol. X, 1, 265-267 et XI, 1, 160-162).

**An.** - Navigation Methods – Méthodes de navigation [*Navigationis methodus*]. (In Engl. & French). Int. Hydr. Bull., VI, 112. Monaco (1934). **a - 287**

Information on a « Résumé of Navigation Methods » published in September 1934 by the Hydrographic Office, Washington D. C. in tabulated form and consisting of a comparison, in synoptical form, between the various classical methods used for the solution of the astronomical triangle with a few general comments on these methods. (This publication represents a Supplement to the Pilot Chart of the North Atlantic Ocean, 1934).

**An.** - Navigation Manual – Manuel de Navigation [*Liber manualis de arte navigandi*]. (In Engl. & French). Int. Hydr. Bull., VI, 112–113. Monaco (1934). **a - 288**

Account of the second edition of the « Manuale dell'Ufficiale di Rotta » (Manual of the Officer of the Watch) published by the Hydrographic Institute of the Royal Italian Navy. List of the questions, which are dealt with in the volume.

**An.** - Centralisation of Notices to Mariners in Ports – Centralisation des Avis aux Navigateurs dans les ports [*Monitiones ad usum navigatorum in portibus. Collectio in unum corpus*]. (In Engl. & French). Int. Hydrogr. Bull., 1, 3–12. Monaco (1935). **a - 289**

Résolution 36 et 36$^{a}$ de la Conférence Hydrographique Internationale de 1929. V. aussi: « Répertoire des Résolutions Techniques », XXI, 40, par. 1-5, 1930.

**An.** - Centralisation of Notices to Mariners in Ports – Centralisation des Avis aux Navigateurs dans les ports [*Monitiones ad usum navigatorum in portibus. Collectio in unum corpus*]. (In Engl. & French). Int. Hydrogr. Bull., II, 37–38. (1935). **a - 290**

Information, which should be added to the List of the Ports where Central Service exists, on pages 4 et seq. of the « International Hydrographic Bulletin », I, 1935.

**An.** - General List, Arranged by Oceans, of Shoals – Liste générale par Océans des hauts-fonds [*De oceanorum fundis incertis. Elenchus generalis*]. (In Engl. & French). Int. Hydrogr. Bull., II, 38–39. Monaco (1935). **a - 291**

Information contained in a letter dated 11 th March, 1935, received by the International Hydrographic Bureau from the Director of the Nautische Abteilung of the Marineleitung, pertaining to the discovery by the German cruiser « Karlsruhe » of an area with depths less than 300 metres in the immediate neighbourhood of the 66 m. (36 fms.) shoal shown as nº 6 in Part B, January 1932, of I. H. B. Special Publication nº 20 (2nd edition) concerning the South Atlantic Ocean.

**An.** - Sailing Directions – Harbour Regulations – Instructions nautiques – Règlements des ports [*Praecepta nautica. Regulae portuales*]. (In Engl. & French). Int. Hydrogr. Bull., II, 39. Monaco (1935). **a - 292**

Information on the publication by the Japanese Hydrographic Department in three volumes, of the « Suirosi Huroku » (Supplement to Sailing Directions), which contain the various Harbour Regulations and are intended to accompany the Sailing Directions.

**An.** - Kelvin–White Spherical Compass [*De buxida sphaerica* Kelvin–White]. Naut. Magaz., March, 204, Glasgow (1934). **a - 293**

**An.** - A New Form of Direction–Finder [*Apparatus novus radiogoniometricus*]. Naut. Magaz., March, 270, Glasgow (1934). **a - 294**

**An.** - Le compas magnétique Stella à double système d'aiguilles [*De buxida magnetica* Stella *duplici praedita systhemate acuum*]. 1 pl., Rev. Hydrogr., XI, 2, 160–162. Monaco (1934). **a - 295**

Description de ce nouvel instrument qui comprend une rose sèche annulaire à moment magnétique très faible et d'un poids réduit: 3,9 grammes contre les 13 grammes pour les roses sèches habituelles.

**An.** - Sextant à bulle perfectionné, type Husun [*Sextans* Husun, *bulla praeditum, ad perfectionem reductum*]. 1 tabl. h. t., Rev. Hydrogr. XII, 1, 159. Monaco (1935). **a - 296**

Dernier modèle perfectionné par la Maison Henry Hughes & Son Ltd. de Londres. Voir cette même VI, 2 du novembre 1929, p. 144.

**An.** - Fog Dissipation [*De caliginis dissipatione*]. Science, Suppl., LXXXI, 2089, 8–9. New York (1935). **a - 297**

Account on a chemical method of fog dissipation by water-absorbing material, described in a report read at the meeting in Philadelphia of the American Philosophical Society; results of the first tests when by spraying a saturated solution of calcium chloride through specially designed nozzles, a sizable path through a pea-soup fog has been obtained. Some considerations as to the nature of fog in general, and sea fog in particular; research carried on at Round Hill by means of a laboratory apparatus which includes an artificial fog chamber with equipment for generating fog. Actual test on an actual fog i. e. a fog bank driven by a southwesterly wind at 13 miles an hour drifted in from Buzzard's Bay, limiting visibility to less than 500 feet, which shows that the approximate cost of clearing a given area for a specified time is within the realm of practicability.

**An.** - Beiträge zur Küstenkunde: Nato, Lagonoy–Golf, Philippinen [*Contributio in litora studenda.* Nato, Logonoy–Golf, *Philippinae Insulae*]. 1 Taf., Seewart, IV, 1, 23–26. Deutsche Seew. Hamburg (1935). **a - 298**

An Hand verschiedener Quellen und Berichte wird Nato, ein kleiner Ort am Lagonoy-Golf an der Ostküste der Insel Luzon beschrieben, mit besonderer Berücksichtigung der Landmarken, der verschiedenen Bänken, der im Lagonoy-Golf liegenden Inseln, der Atulayan Bay.

**An.** - Fahrt durch die Magellan–Strasse [*Transitus per Fretum Magellanicum*]. 1 Tab., Seewart, IV, 1, 28–29. Deutsche Seew. Hamburg (1935). **a - 299**

Zusammenstellung von Kursen, Distanzen und Abständen auf der Fahrt durch die Magellan-Strasse von Kap Virgenes bis Kap Pillar.

**An.** - Ueber die Kräfteeinwirkungen auf den Weg des Schiffes [*De terrestribus elementis eorumque influentia in navis cursum*]. 1 Taf., 2 Tab., Seewart, IV, 2, 70–73. Hamburg (1935). **a - 300**

An Hand von zwei Beispielen ist der Einfluss der Erdumdrehung auf die Richtung einer vom Wind hervorgerufenen Oberflächenströmung besprochen mit besonderer Berücksichtigung der Beziehungen zwischen Windstärke und Stromstärke, des Einflusses des Zustandes der See auf die Stromgeschwindigkeit, und des Einflusses des Seeganges auf das Steuern und somit auf den Weg des Schiffes.

**An.** - Ein einfaches Verfahren zur Bestimmung der Kompassdeviation auf See [*De simplificatione quadam in determinanda buxidae deversione*]. 1 Tab., Seewart, IV, 2, 80–82. Hamburg (1935). **a - 301**

Kurze zusammenfassende Wiedergabe eines Verfahrens zur Bestimmung der Kompassdeviation auf See, das besonders für kleine Schiffe mit geringer Besatzung in der Nord- und Ostseefahrt empfohlen werden kann, weil man dabei ohne Chronometer oder Uhr und ohne Azimuttafeln auskommen kann.

**An.** - Kompass mit dubbel Magnetsysteem [*De buxida duplici praedita systhemate acuum*]. De Zee, May, 282–283. Den Helder (1934). **a - 302**

## Securitas maritima – Operae pro vitae rerumque conservatione – Adsistentia – Destructio et recuperatio navium.

**Berthaut Léon** - A propos d'une catastrophe maritime récente. H. S. B. [*Agitur de recentiore quodam naufragio* (*Societas Hospitalium Salvatorum Britonum*)]. 1 fig., Bull. Soc. Océanogr. France, 62, 1108–1111. Paris (1931). **a - 303**

Origine et histoire de la H. S. B. (Société des Hospitaliers Sauveteurs Bretons) et son œuvre pour le sauvetage sur mer et la sécurité sur les plages.

**Bowen Frank C.** - British Correspondence [*Epistulae a Britannia receptae*]. Naut. Gaz., CXXV, 4, 14 & 33. New York (1935). **a - 304**

Information on the staging of another air race and of a race of the surviving sailing ships on the Australian grain trade, in order to celebrate the centenary of South Australia; Port of London traffic; experiences on the development of colloidal fuel for sea going vessels; danger of extinction of the business of salvage.

**Breitfuss Leonid** - Die Rettung der Besatzung des « Tscheljuskin » [*De servatis nautis navis* « Tscheljuskin »]. 1 Karte, Peterm. Mitt. LXXX, 6, 184. Gotha (1934). **a - 305**

Diesem Bericht ist eine kleine Karte beigefügt, wo die Fahrt, die Drift des Eislagers und die Fahrt von « Lütke » gezeigt werden.

**Camps H. E. J.** - Ships Collisions [*De navium collisione*]. 24 pp. North–East Coast Inst. Engr. & Shipbld., New York (1935). **a - 306**

Advance paper, meeting April 26th 1935. Legal problems. Importance of logs records. Procedure. Causes of collision. Reference to various types of damage caused by collision.

**Castelfranchi G.** - Come Marconi guida le navi nella nebbia [*Quo modo Guilelmus* Marconi *naves ducit per caliginem*]. 2 fig., Natura 9, 48–49. Milano (1934). **a - 307**

È spiegato schematicamente come il radiofaro agisce e si fa risaltare quali nuovi e vasti orizzonti si apriranno all'impiego di questo recente strumento di Guglielmo Marconi.

**Dannmeyer F.** - The Neophan Glass for Better Visibility at Sea [*De vitro* neophan *deque claritate amplificanda*] Naut. Gaz., CXXIV, 12, 11–12. New York (1934). **a - 308**

A contribution to the fog problem. Successful work of the Institute for Physics and Biological Research. Cooperation by various steamship Companies and authorities interested in such optical navigation problems. Advantages in using the neophan glass.

**Dickle D. W.** - Mathematical Determination of Vessel Position in Collision Cases [*De navis positione eiusque determinatione mathematica si collisio acciderit*]. Pacific Mar. Rev. XXX, 7 July, 219–220. San Francisco, Calif. (1933). **a - 309**

Position of Vessel at any time previous to collision. Case of ships Jefferson Myers versus dredge A. Mackenzie: position of both vessels calculated from moment of collision backwards.

**Epron** - Collection d'articles sur la réparation des navires et sur le sauvetage et les avaries [*De navibus reficiendis, de nautis servandis deque navium detrimentis*]. (En russe). Fasc. 1, 179 pp., Ed. Krasnozn. Exp. Podv. Rab. URSS. Leningrad (1933). **a - 310**

Bref compte rendu des travaux de sauvetage exécutés par le EPRON en particulier en Arctique (sauvetage du brise-glace « Malyghine » et remise à flot du « Sadko »).

**Gavrilof Y.** - Salvamento de submarinos [*De servandis navibus submarinis*]. Bol. Centro Naval, a. LIII, 506. Buenos Aires (1934). **a - 311**

**Howard R. R.** - Safety, How Practical Results are being achieved [*De securitate in navigatione. Resultatus qui adhuc obtenti sunt*]. Mar. Rev., LXIV, 2 Febr. 15–16. New York (1934). **a - 312**

**Jacobick K. J.** - Das Ziel aller Stabilitätsberechnungen und die Berechnung der jeweiligen Hebelarmkurve [*De calculis quoad stabilitatem. Agitur etiam de calculanda vectis curvatura*]. 2 Fig., Seewart, IV, 2, 66–70 Dtsch. Seew. Hamburg (1935). **a - 313**

Beschreibung des Weges zur Herstellung der Hebelarmkurve für den genauen Belastungszustand eines Schiffes, mit der Hilfe des Krängungsversuches, und an Hand der KM-Tabelle.

**Lueck H.** - Die Gefahr des Kenterns bei Holz–Decklast [*Agitur de quadam navi quae, ligno onerata, subvertitur. Pericula quae nautis impendunt*]. Seewart, IV, 1, 6–8. Dtsch. Seew. Hamburg (1935). **a - 314**

Beschreibung der Reise eines Schiffes mit einer hohen Decklast und der Ursachen der Gefahr seines Kenterns.

**Marinelli Giuseppe** - Sinistri marittimi. Errori di manovra o deficienza di segnalazioni ? [*De calamitatibus maritimis. Num calamitates erratis exercitationibus sunt tribuendae an signalationum deficientiae ?*]. Ann. R. Ist. Sup. Nav., III, 2, 189–200. Napoli (1934). **a - 315**

L'A. si sofferma sulla vexata quaestio della posizione dei fanali di via delle navi, tratta dalla raccolta fatta dal Board of Trade delle norme in materia, in una pubblicazione da servire di guida a chi si occupa della questione dei fanali di via. Convenienza di rinnovare il Regolamento per evitare gli abbordi in mare.

**McAdie Alexandre** - Fog [*Caligo*]. 53 pls, 23 pp., Macmillan Company. New York (1934). **a - 316**

The A. is directing the attention of the reader to the possibility of fog dissipation. Photographs of clouds, fogs, snow and frost crystals, lightning flashes and the like.

**McKenzie T.** - How « Bayern » was Raised [*Quo modo navis « Bayern » e fundo extracta est*]. Shipbld. & Shipg Rec., XLIV, 18 Nov., 467–470. London (1934). **a - 317**

Details of this rescue made by Metal Industries Ltd. of Glasgow and Rosith.

**Minorsky Nicholas** - Problems of Anti–Rolling Stabilization of Ships by the Activated Tank Method [*Quaestio de stabilitate navium, volutationem vitandi causa, per methodum alveorum*]. 2 figs., Journ. Amer. Soc. Nav. Eng., XLVII, 1, 87–119. Washington D. C. (1935). **a - 318**

After a brief introduction, in which author briefly mentions a few principal methods of ship stabilization which have been actually tried in practice, he investigates the fundamental principles of performance of a theoretically perfect, activated tank stabilizer in order to gain an insight into the problem of a control capable of producing such stabilization. It appears from his study that the choice of controlling system under these requirements is narrowed down to such an extent that it is possible to specify definite characteristics which such control system must possess in order to insure that the roll-quenching efficiency is at all times at its maximum consistent with the amount at the ballast employed as well as with displacement, metacentric height and period of the ship. It is of interest to note that the theoretical conclusions reached in the present analysis have found a complete experimental confirmation.

**Mladiáta János** - Elsülyedt Hajók Kiemelése [*De recuperatione navium*]. 7 fig, Tenger, XXIV, 7/12, 45–55. Budapest (1934). **a - 319**

**Nukiyama Daizo** - A Photophone Available Through Foggy Atmosphere in Daytime [*Apparatus photophonicus quo utendum est in navigando per caliginem diurnam*]. 2 figs., Proc. Imp. Acad., XI, 2, 47–50. Tokyo (1935). **a - 320**

In a previous paper (See: « Proc., X, p. 407, 1934) author reported a method of sending light signals through fogs, of which the principle is also applicable to the case of a photophone, which is described in the present paper, and which can be used through foggy atmosphere in daytime.

**Obroutchev S.** - Sur le sauvetage des hommes du « Tchéljouskine » [*De nautis navis* « Tscheljuskin » *deque operibus pro eorum conservatione*]. (En russe). 8 figs., Vestn. Znan., 5, 285-287. Leningrad (1934). **a - 321**

**Patry E.** - Réglementations du Bureau Veritas relatives aux installations électriques à bord des navires (1897–1934) [*De apparatibus electricis in navibus constitutis* (*1897–1934*). *Regulamenta prolata ab Officio nomine* Veritas]. Rev. Gén. Electricité, XXXVII, 22 Juin, 693–707. Paris (1935). **a - 322**

**Petrillo Luigi** - Il salvataggio del personale dei sommergibili con l'Ascensore sottomarino. (Apparecchio Rossini–Gerolami–Arata) [*De ascensorio submarino deque operibus peragendis ad servandam vitam nautarum qui navigant in navibus submergibilibus.* (*Agitur particulatim des apparatu* Rossini–Gerolami–Arata)]. 2 fig.f. t., Riv. Marit., a. LXVII, 11, 195-218. **a - 323**

Descrizione di questo apparecchio italiano, di cui la stampa quotidiana ha dato notizia, a proposito di riusciti esperimenti di salvataggio da un sommergibile sinistrato.

**Porter Kenneth** - Saving Lives at Sea [*De nautis eorumque conservatione*]. Journ. Amer. Soc. Nav. Eng., XLVII, 1, 136-138. Washington D. C. (1935). **a - 324**

Some thoughts in addition to the article « Can We Eliminate the Fire Hazard » reprinted from the « Marine Journal » of September 15, 1934, under the heading « Notes », appearing in the November, 1934, issue of the « Journ. Amer. Soc. Nav. Eng. », with especial regard to the gravest danger on board ship, represented by panic. Importance of the regulations, regarding life boat drills at sea, and of educating the passengers, in order to eliminate the fears and panic among crew and passengers.

**Saptzov** - Le travail de l'Administration Centrale de la Voie Maritime du Nord dans le secteur Ouest de l'Arctique en 1934 [*De operibus peractis in sectore Occidentali regionis Arctidis per Administrationem Centralem cursui maritimo Nordico praepositam*]. (En russe). Bull. Arct. Inst., 11/12, 398. Leningrad (1934). **a - 325**

Bref compte rendu des expéditions organisées par l'Administration de la Voie du Nord en dehors de l'expédition bien connue pour le sauvetage de l'équipage du brise-glace « Tchéljouskine ».

**Schmidt O. J., Baevskij I. L. & L. Z. Mekhliss** sous la réd. de... - Comment nous avons sauvé les hommes du « Tchéljouskine » [*Quo modo nautas conservavimus navis* « Tscheljuskin »]. (En russe). Ill., 1 carte h. t., 404 pp., « Gheroitch. Epop. », réd. « Pravda ». Moskva (1934). **a - 326**

Recueil d'articles des auteurs suivants: A. Ljapidevskij, S. Levanevskij, M. Slepnev, V. Molokov, N. Kamanine, M. Vodopjanov, I. Doronine etc.

**Seward H. L.** - Safety in Navigation [*De securitate in navigando*]. Mar. Progr. III, 1, 38–39. New York (1935). **a - 327**

Fire - resisting materials, handling passengers in danger. Radio communication.

**Stephan H.**, mit Bemerkungen **v. Hebecker O.** - Prüfung von Manövriereigenschaften in der Praxis [*De capacitatis exercendae navigationis quoad practicam inspectione*]. 1 Taf., Seewart, IV, 2, 78–79. Dtsch. Seew. Hamburg (1935). **a - 328**

Ergebnisse der Versuche über Manövriereigenschaften von zwei Einschraubern nahezu gleicher Abmessungen. Es wurde die Wendigkeit auf Vorausfahrt nach dem Standardmanövrierversuch gemessen.

**Stiles W. C. I.** - For Greater Safety at Sea [*Leges ad augendam securitatem in navigando*]. Naut. Gaz. CXXV, 5, 13. New York (1935). **a - 329**

Letter to the Editor of « Naut. Gaz. », concerned with legislation to be passed by the Congress in connection with enactments concerning safety at sea.

**Tyrer A. J. & Hoover D. N.** - Bureau of Navigation and Steamboat Inspection [*Officium navigationis et inspectionis navicularum vaporalium*]. 2 figs., U. S. Dpt. Comm., How It Serves You etc. Aug., 45–50. Washington D. C. (1934). **a - 330**

Outline of some of the specific duties carried out by the U. S. Bureau of Navigation and Steamship Inspection. In a first chapter A. J. Tyrer illustrates on hand of the example of the career of a typical American ship the part of the Navigation Law which relates to ownership and sale of vessels, their mortgages and liens, their nationality, their port and tonnage taxes, and their commitments with officers and crew, which is administrated by the Navigation Unit of the Bureau. In a second Chapter D. N. Hoover deals with the Steamboat Inspection Unit of the Bureau and describes its ceaseless vigilance on every American steam-driven and large commercial motor vessel and every foreign ship carrying passengers from an American port.

**Waldmann Kurt** - Die Brauchbarkeit eines Trimmplanes in der Praxis [*De utendo quodam plano pro stabilitate quoad practicam*]. 4 Tabl., Seewart, III, 6, 259–262. Dtsch. Seew. Hamburg (1934). **a - 331**

Vf. schildert vier aus der Praxis stammende Beispiele, welche die Brauchbarkeit des Trimmplanes als Hilfsmittel während der Errechnung der Vorgänge der Beladung und Entladung der Schiffe beweisen.

**Wunch E. W.** - Dynamic Stabilization of Ships [*De navium dynamica stabilitate*]. 2 figs., U. S. Nav. Inst. Proc., LXI, 383, 81–84. Annapolis, Md. (1935). **a - 332**

Analysis of the motions of a vessel afloat. The points through which the forces producing the motion of the vessel appear to act: (1) the center of gravity, and (2) the center of buoyance. Certain mechanical devices used to increase the natural period and diminish the amplitude of roll. Schematic description of Dr. Frahm's antirolling tank, the Fieux' antiroll installation, the Sperry type of stabilizer, and the Japanese system of ship stabilization. Comparison between the various systems.

**Zalomanov V.** - Le naufrage du « Tchéljouskine » et le sauvetage de son équipage [*De naufragio navis* « Tscheljuskin » *deque conservatione nautarum*]. (En russe). Meteor. Vestn., 4/7, 152–154. Leningrad (1934). **a - 333**

**National Bureau of Standards** - Safety in Marine Transportation [*Quaestio de securitate in agendis subvectionibus maritimis*]. Journ. Amer. Soc. Nav. Eng., XLVII, 1, 139–141. Washington D. C. (1935). **a - 334**

Reprinted from the December, 1934, issue of « Technical New Bulletin ». Brief account of the Bureau's activities, having a bearing on safety requirements for ship construction, equipment, cargo, and stowage, and on aids to navigation.

**U. S. Treasury Department** - Annual Report of the United States Coast Guard, 1931 & 1932 [*Relatio annua de navibus litorum praesidiariis ad Americae status Foederatos pertinentibus, a. 1932*]. Tables, U. S. Govmt. Pr. Off., Tr. Dpt. Doc. 3051 v + 86 & iv + 40 pp. Washington D. C. (1932). **a - 335**

Report of the operations of the Coast Guard for the fiscal year ended June 30 1932, and of the expenditures of money appropriated for the maintenance of the Coast Guard for that period.

**O-Nov** - Avaries et leur réparation au cours de la navigation dans les eaux du Nord [*Detrimenta et reparatio in navigando par maria Nordica*]. (En russe). Morsk. Sborn. 10, 119–120. Leningrad (1934). **a - 336**

Causes principales des avaries qui peuvent se produire au cours de la navigation dans les eaux septentrionales; le caractère des dommages; moyens de lutte contre les dommages et les avaries causées par les glaces.

**An.** - Protection at Sea [*Quaestio de tutela in navigando*]. Engineering, CXXXVIII, 3590, 473–474. London (1934). **a - 337**

On the decision of U. S. administration that experienced officers from U. S. Nav. Dpt. assist in task of drawing serviceable lessons from disaster of « Morro Castle ».

**An.** - Preventable Fire at Sea [*De providendis incendiis in navigando*]. Journ. Amer. Soc. Nav. Eng., XLVII, 1, 138–139. Washington D. C. (1935). **a - 338**

Brief account of an article by R. G. Skerrett in the January 18, 1935, issue of « Scientific American », in which author points out the way in which shipping executives on board of the S. S. « Morro Castle » have failed to take advantage of safety measures that are available during the fire which caused the loss of this ship.

**An.** - Fog Peril to Fishermen Lessened [*De minuitis periculis, caliginis causa excitatis pro classe piscatoria*]. Nature, CXXXIV, 3390, 623–624. London (1934). **a - 339**

The danger of the fog can now be very successfully overcome by the use of small radio transmitting sets weighing 20 lb. which can signal the position of the scattered boats to the mother ship.

**An.** - Panic, Not Fire, Major Cause of « Morro Castle » Dead [*Non igni sed pavori tribuenda est calamitas navis* « Morro Castle »]. Naut. Gaz., CXXV, 5, 13. New York (1935). **a - 340**

Quotation and comment of the series of memorandums by Chauncey I. Clark submitted to the U. S. Department of Commerce, Board of Steamship Inspectors, which assert that the major loss of life in the disaster of the S. S. « Moro Castle » was not suffered through fire but through panic.

**An.** - Radiogoniomètre à rayon cathodique pour prévenir les abordages [*Apparatus radiogoniometricus radiis praeditus cathodicis ad collisiones vitandas*]. Rev. Hydrogr. XI, 2, 169–170. Monaco (1934). **a - 341**

Extrait du Report of the Radio Research Board 1932-1933, p. 81, H. M. Stationery Office, London (1934). Tout navire équipé avec un radiogoniomètre de cette espèce, placé de préférence dans la chambre des cartes, pourrait recevoir des signaux émis toutes les quinze secondes, p. ex., brefs, sur 600 mètres de longueur d'onde.

**An.** - Radio Fog Navigation [*De navigatione per caliginem* radio *auxilio*]. Science. LXXX, 2067, 7–8. New York (1934). **a - 342**

On the last works of Marconi.

**An.** - Salvage of « König Albert » [*De elatione navis* « König Albert »]. Shipbldg & Shipg Rec., XLVI, 6 Aug., 154–155. London (1935). **a - 343**

Details of this salvaging.

## Signalationes maritimae (fixae, fluctuantes, luminosae et per radio, sonorae et ultrasonorae) - Libri pharorum, lanternarum, signalationum - Communicationes.

**Blondel André** - Sur l'utilisation des verres colorés en jaune dans la technique des phares maritimes ou d'aviation. [*De utilitate percipienda ex vitris flavis pro technica pharos maritimos et aëronauticos instituendi*]. C. R. Acad. Sc. CIC, 17, 756–759. Paris (1934). **a - 344**

Avantages et inconvénients de ces verres employés en circonstances diverses. Il semble que la signalisation à l'entrée des ports puisse être améliorée grâce à leur emploi.

**Caputi G.** - Aspetti e problemi del servizio comunicazioni [*Aspectus atque problemata circa communicationum munera*]. Riv. Maritt., LXVIII, 7/8, 57–76. Roma (1935). **a - 345**

Importanza del problema. Aspetti offensivi e difensivi del servizio. Caratteristiche dei vecchi e nuovi sistemi. Segretezza. Collegamenti. Problemi organici.

**Greenland E. F.** - Wireless Communication [*De radiocommunicationibus*]. 7 figs, Mar. Obs. XII, 118, 53–58. London (1935). **a - 346**

Generalities. Description of some wireless stations.

**Gutton Camille** - Sur la propagation des ondes radiotélégraphiques autour de la terre [*De undis marconigraphicis earumque propagatione per orbem*].

1 fig., ann. 1935, Bur. Longit., C. 1–C. 12. Paris (1934). **a - 347**

Propagation des ondes longues. Propagation des ondes courtes. Echos radiotélégraphiques. « Echos du tour du monde ».

**Hooper S. C.** - Communications in the Merchant Marine [*Quaestio de communicationibus quoad Marinam Mercatoriam*]. Naut. Gaz., CXXV, 3, 10 & 30. New York (1935). **a - 348**

Author points out that in view of a better security at sea, the efficient use of radio, visual, above-water and under-water sound communication facilities should not be considered a responsibility of radio operator alone, but also of master and deck officers.

**La Roerie G.** - A propos des pavillons des yachts anglais [*Agitur de vexillis in pamphiliis anglicis*]. 4 fig., 1er Bull. Trim. Ass. Amis Mus. Mar., 175–178. Paris (1934). **a - 349**

Quelques données fragmentaires concernant le pavillon anglais avec référence spéciale au pavillon porté par un très joli modèle de yacht anglais du XVIIe siècle, conservé au Musée de la Marine.

**Marcotte Ed.** - L'économie dans la signalisation lumineuse à grande distance [*De oeconomia quoad signalationes luminescentes maximo spatio*]. iv + 38 pp. Ed. « Rev. Opt. Théor. & Instr. ». Paris (1934). **a - 350**

Etant donné que les exigences de la navigation maritime et aérienne nécessitent la construction et l'utilisation de dispositifs de signalisation lumineuse à grande portée, qui sont très coûteux en ce qui concerne leur prix et leur fonctionnement, l'A. discute dans le présent ouvrage les diverses solutions possibles qui permetteraient de réaliser une certaine économie, en partant des résultats d'expériences et des ouvrages de Ribière et surtout de Blondel.

**Marcotte Ed.** - La portée des Feux à éclats et des Signaux colorés [*Agitur de luminibus splendentibus deque signalationibus coloratis eorumque visu*]. Rev. Scient. 28 avr. 258–259. Paris (1934). **a - 351**

Indications sur l'intérêt que présentent les recherches concernant la portée des signaux lumineux en vue d'obtenir de la façon la plus économique le maximum d'efficacité. Bref historique. Normalisation des verres colorés. Objets de nouvelles recherches.

**Mead H. P.** - The Story of the Semaphore. V. Development in the Royal Navy and Other Services [*Historia apparatus semaphorici eiusque progressus quoad classem Regiam aliaque munera*]. 14 figs., 4 pls., Mar. Mirr., XXI, 1, 33–55. London (1935). **a - 352**

Story of the introduction of Pasley's system for semaphore on land and sea, in 1827; the development of the apparatus in 1888; the new method of sending and answering signals; abolishment of the manoeuvring by semaphore in 1895 or 1896; introduction of the real truck semaphore in 1895, which was finally abandoned in favour of wireless in 1905 and 1906. Introduction and development of the use of hand-flags; history of the manual signalling in other countries; night signalling arrangements of telegraphs. Brief description of the various telegraph and semaphoric telegraph stations at Portsmouth. Appendix: Comparison of different semaphore systems.

**Mead Hilary P.** - The History of the International Code [*Novi codicis internationalis historia*]. U. S. Nav. Inst. Proc., LX, 378, 1083–1808. Annapolis, Md. (1934). **a - 353**

Short history of the Code and its continuous progress. Some criticism as to the last edition and to the amount of bunting, which ought to be reduced with the universal advent of radiotelegraphy.

**Middleton W. E. Knowles** - The Principles Underlying the Choice of Visibility Marks [*De selectione signalationum maritimarum eiusque fundamentis*]. 3 tables., Monthly Weath. Rev., LXIII, 1, 17–19. Washington D. C. (1935). **a - 354**

The purpose of this note is to suggest procedures by means of which the estimation of the distance of visibility, or « visual range » by eye, which is probably one of the least satisfactory of all meteorological observations, could be improved. The author claims that some standardization of their technique on the lines he suggests, would greatly improve the quality of these observations.

**Montefinale Gino** - I progressi della radio. Onde ultracorte e loro possibili applicazioni nel campo marittimo [*Da radioprogressibus. Agitur de undis ultrabrevibus earumque applicationibus quoad artem navigandi*]. LVII, settembre, 234–244 pp. Roma (1934). **a - 355**

Sulle esperienze e sui risultati pratici fatte ed ottenuti in questi ultimi tempi.

**Moreau-Hanot M.** - Photométrie des lumières brèves ou variables [*De photometria brevium luminum vel variabilium*]. Ill., 126 pp. Editions de la « Revue d'optique ». Paris (1934). **a - 356**

**Piatti V.** - Le onde ultrasonore e le loro applicazioni [*De undis ultrasonoris earumque applicationibus*]. **a - 357**

Comportamento degli ultrasuoni nell'aria, nell'acqua. Proprietà « piezo-elettrica » del quarzo. Generatore-ricevitore. Scandaglio. Telegrafia sottomarina.

**Putnam R.** - Lighthouse Service [*De pharorum servitiis*]. 2 figs., U. S. Dpt. Comm., How It Serves You etc. Aug., 39–44. Washington D. C. (1934). **a - 358**

Lighthouses: varied types and characteristics. Lightships. Radiobeacons. River lights. Automatic lights. Buoys. Organization of the U. S. Lighthouse Service. History of the U. S. Lighthouse Service.

**Rosani Sergio** - Radiofari [*De radiopharis*]. 40 figs., Riv. Maritt., a. LXVII, 10, 25–72. Roma (1934). **a - 359**

Generalità. Principio di funzionamento dei radiofari. Radiofari circolari. Radiobussole. Radiofari ad emissione direttiva rotante e fissa. Radiofari d'atterraggio. Organizzazione attuale della rete di segnalazione a radiofari.

**Stchokind V.** - Radiophare rotatif pour l'Arctique [*Radiopharus volubilis pro navigatione in regiones arcticas*]. (En russe). 3 fig., Vodn. Transp., 8, 29–11. Moskva (1934). **a - 360**

**Vercelli F.** - Cenni preliminari sulle nuove determinazioni delle costanti ottiche nelle acque marine [*Notitiae priores de novis determinationibus quoad constantes opticas in aquis maris*]. Ric. Scient., a. V, v. II, 9–10, 344–348. Roma. **a - 361**

Esposti i concetti seguiti nelle ricerche di ottica marina promosse recentemente dal Comitato Talassografico, sono riassunte le tabelle delle costanti che caratterizzano la propagazione, l'assorbimento e la diffusione delle radiazioni solari nelle acque marine.

**Webster Hanson Hart** - The World's Messengers [*Historia communicationum per orbem*]. 100 ills., 8 photos on full-page, Houghton Mifflin Co. Boston (1934). **a - 362**

Story of communication, emphasizing the modern means. Each chapter contains the description of the familiar means and devices for communication of to-day and traces their development back to primitive origins and early inventions.

**Ghidrografitcheskoje Oupravlenije** (Service Hydrographique) - Description des phares, des feux et des signaux de l'Océan Arctique. Corrigé jusqu'au 31 Décembre 1933 [*Descriptio pharorum, luminum, signalationum ad Oceanum Arcticum pertinentium. Liber correctus usque ad 31 Decembris 1933*]. (En russe). 13 fig. h. t., 359 pp. Ghidr. UVMS RKKA, Leningrad (1934). **a - 363**

**Hydrographic Department** - [*Phari*]. Tokyo (1933-34, 1934-35) - Tôyô Tôdaihyo. (List of Lights in the Orient, Part II). **a - 364**

**Hydrographic Office** - [*Phari*]. London (1933) - Volumes of Admiralty List of Lights. Fog Signals and Visual Time Signals (revised) and Supplement. **a - 365**

**Hydrographic Service** - [*Phari*]. Bangkok (1933-1934) - List of Lights, 1934. Handbook for Aga Lights, B. E. 2476 (in Siamese only). **a - 366**

**Istituto Idrografico della R. Marina** - Radioservizi per la navigazione. Volume II. Radioservizi meteorologici, sanitari, ecc. Appendice. Norme e còdici per la decifrazione dei bollettini meteorici [*De radioservitiis pro navigatione. Vol. IIum Radioservitia meteorologica, medica, etc. Appendix: Normae et codices ad ephemerides meteoricas explicandas*]. 37 fig., viii-272 pp., Tip. dell'Istituto Idrografico della R. Marina. Genova (1934). **a - 367**

Il volume è aggiornato al 20 settembre 1934.

**Service Hydrographique de la Marine** - Radiosignaux à l'usage des navigateurs. Vol. I (Radiophares, Radiogonios, Signaux horaires) [*Radiosignalationes ad usum navigatorum. Vol. Ium (Radiophari, Radiogonii, Signalationes horariae)*]. 1935. Paris (1935). **a - 368**

**Servicio Hidrografico** - [*Phari*]. Madrid (1933) - Libro de Faros (Part I). **a - 369**

**U. S. Department of Commerce** - [*Phari et signalationes*]. Washington (1934).

(—) Gulf Coast Local Light and Buoy List.

(—) Local Light and Buoy List. New York and Approaches- Narragansett Bay to Cape May.

(—) Local Light and Buoy List. Cape May to Cape Lookout.

(—) Local Light and Buoy List. Cape Lookout to Dry Tortugas.

(—) Light List Great Lakes United States and Canada.

(—) Light List and Buoys. Mississippi and Ohio Rivers. **a - 370**

**W. P.** - Rundfunkempfang auf deutschen Handelsschiffen [*Receptio marconigraphica in navibus mercatoriis germanicis*]. Umschau, XXXIX, 6, 116. Frankfurt a. M. (1935). **a - 371**

Kurzer Bericht über einige Erfahrungen mit der Uebertragung von Rundfunkdarbietungen. Die Versuchsanlagen an Bord verschiedener Dampfer haben gezeigt, dass die deutschen Sender über eine Entfernung bis 2500 km. empfangen werden können.

**An.** - The Locations of the Polar and Wireless Stations of USSR [*Agitur de stationibus polaribus atque marconigraphicis ad URSS pertinentibus earumque positione*]. (In Russ. & Engl.). 1 table, Bull. Arct. Inst., 5, 228-229. Leningrad (1934). **a - 372**

Denomination, year of foundation, latitude, longitude, when and by whom determined.

**An.** - List of Wireless Stations. Italy. - Liste des Stations Radiographiques. Italie [*Elenchus stationum marconigraphicarum. Italia*]. (In Engl. & French). Int. Hydr. Bull., VI, 114. Monaco (Princ.) (1934). **a - 373**

(See: « Int. Hydr. Bull. », II, 1934, 40). Information of the publication of the second volume of the *Radioservizi per la navigazione* by the Hydrographic Office of the Royal Italian Navy. This volume is corrected to 20th September 1934 and is arranged in an entirely new and very practical form.

**An.** - Lists of Lights. – Livres des phares [*Liber de pharis*]. (In Engl. & French). Int. Hydrogr. Bull., II, 39-40. Monaco (Princ.) (1935). **a - 374**

Information on the publication of the Lists of Lights and Fog-signals by the French Service Hydrographique and of a volume entitled Lista de Faros - Balizamiento y Señales para la Navegacion, issued by the Hydrographic Office of the Oriental Republic of Uruguay.

**An.** - List of W/T Stations – Liste des Stations de Radiosignaux [*Elenchus stationum quae signalationes propagant marconigraphicas*]. (In Engl. & French). Int. Hydrogr. Bull., II, 40-41. Monaco (Princ.) (1935). **a - 375**

Information on the publication by the Bureau de l'Union Internationale de Télécommunications, Berne, of the fifth edition of the « List of Stations performing Special Services » (Nomenclature des Stations effectuant des Services Spéciaux), and on some new instructions concerning the use of radio bearings, which the next edition of H. O. Publication (USA) will contain.

**An.** - A New Lighthouse Apparatus [*Apparatus novus pro pharis*]. Naut. Magaz., Jan. 6-7. Glasgow (1934). **a - 376**

**An.** - Compte Rendu des travaux de la Conférence technique de Signalisation Maritime. Paris, 1933 [*Conferentia technica pro signalationibus maritimis. Parisiis, 1933*]. Rev. Hydrogr., XI, 2, 129-135. Monaco (1934). **a - 377**

La Conférence s'est occupée principalement de questions des phares. Notre bibliographie en a donné renseignements particuliers.

# OPERAE MARITIMAE

## Operae portuales - Tunnels - Canales maritimi - Effossiones fundi marini.

**Aertssen G.** - La stabilité des engins flottants de port [*De ratibus fluctuantibus in portibus. Quaestio de stabilitate*]. Ann. Trav. Publ. Belgique, XXXV, 6, 837-876. Bruxelles (1934). **a - 378**

Dans le présent ouvragé l'A. fixe quelques règles simples permettant la vérification aisée de la stabilité des engins flottants que l'on rencontre dans les ports et les estuaires des fleuves. Il ne s'occupe que du matériel spécial en usage dans les ports, les estuaires des fleuves et les rades: dragues, élévateurs à grain flottants, grues flottantes, remorqueurs et constructions similaires.

**Baker R. J.** - 1934 and the Outlook for 1935 [*De condicionibus quoad navigationis industriam anni 1934 deque providendis condicionibus anni 1935*]. Naut. Gaz., CXXV, 1, 5-6. New York (1935). **a - 379**

Especially turbulent situation of the shipping industry in America and abroad. Criticism of the ocean mail contracts. Condition of the American shipbuilding during the past two years. Reorganization of the Bureau of Navigation and Steamboat Inspection.

**Bijls A.** - Le futur canal d'Amsterdam au Rhin (Waal) [*De futura via navigabili ab Amstelodamo ad flumen Rhenum*]. 1 carte, Génie Civ., CVI, 7, 166. Paris (1935). **a - 380**

Description du parcour, de la capacité et des dimensions principales d'une nouvelle voie navigable directe reliant Amsterdam au Waal, bras principal du Rhin en Hollande, et qui constituera une nouvelle étape de l'extension du réseau des grands canaux intérieurs des Pays-Bas.

**Bonnisseau** - Les travaux exécutés depuis 1931 au port de Saint-Nazaire [*De operibus peractis ab a. 1931 in hodiernum in portu* Saint-Nazaire]. Journ. Mar. March., 23 Févr., 343-353. Paris (1933). **a - 381**

**Bourgoin P.** - Le tunnel de Gibraltar [*Transitus submarinus per Sinum Gaditanum*]. Rev. Polit. et Parlementaire. Oct., 100-114. Paris (1933). **a - 382**

**Collins J. J.** - Construction of Port of Buenaventura, Columbia [*De portu* Buenaventura *in* Colombia *eiusque constructione*]. 5 figs., Naut. Gaz., CXXIV, 25, 5-9. New York (1934). **a - 383**

Location of this port and its importance. Tidal variation. Cargo handling equipment. Construction problems. Economic results. Traffic.

**Dantec (Le)** - Port de Casablanca [*Portus* Casablanca]. Feuille d'Inform. économ. Médit. (Chambre Comm. Marseille), 5e an., 28-32. Marseille (1933). **a - 384**

Travaux d'aménagement faits et en cours d'exécution. Situation actuelle des quais, grues, possibilité pour les navires de s'accoster, magasins.

**Dantin Ch.** - Les installations maritimes de Port-Bouet et le pont-rails flottant sur la lagune d'Abidjan (Côte d'Ivoire) [*Institutiones maritimae in* Port-Bouet *constitutae atque pons fluctuans, laminis praeditus rotabilibus, in lacuna* Abidjan]. Génie Civil, CII, 25 Févr., 173-179. Paris (1933). **a - 385**

**De Blocq van Kuffeler M.** - L'endiguement du Zuyderzée [*De molibus foraneis ad* Zuyderzée *exsiccandum aedificatis*]. Nombr. plans et phot. Mém. et C. R. Trav. Soc. Ing. civils de France. Juillet-Août, 819-861. Paris (1933). **a - 386**

**De Buen Rafael** - Le tunnel sous-marin du détroit de Gibraltar [*Transitus submarinus per Sinum Gaditanum*]. 6 croquis, Bull. Soc. Océanogr. de France, XV, 83, 1441-1454. Paris (1935). **a - 387**

**De Lisle Melchior** - La nouvelle forme-entrée du port de Saint-Nazaire [*De novis accessibus ad portum* Saint-Nazaire]. 11 fig., Génie Civil, CV, 24, 545-549. Paris (1934). **a - 388**

Description accompagnée des dessins, figures et schémas.

**Gauvain Victor** - Le port de Cherbourg [*Portus* Cherbourg]. Rev. Econ. Int., XXV, 1 Févr., 333-363. Bruxelles (1933). **a - 389**

Historique. Travaux.

**Gavira José** - Hawai, el Gibraltar del Pacifico [*De insulis* Hawai *quae considerari possunt ut Oceani Pacifici sinus Gaditanus*]. Bol. Soc. Geogr. Nac., LXXIV, 7, 417-418. Madrid (1934). **a - 390**

En el puerto hawaiano de Pear Harbour, base militar norteamericana, han empezado las obras del dique seco mas grande del mundo.

**Gavira José** - Túnel submarino en el Japón [*Transitus submarinus per Japoniam*]. Bol. Soc. Geogr. Nac., LXXIV, 9, 147. Madrid (1934). **a - 391**

Se ha inaugurado un túnel entre Shimonoscki y Moji, que enlaza ferroviariamente a las isals de Hondo y Kiuschiu. Mide el túnel tres kilómetros y tiene especialmente una importancia estratégica.

**Giordano Antonio** - Trieste Traffic Shows Increase [*De progressibus quoad mercium frequentiam portus Tergestini*]. 1 table, Naut. Gaz., CXXV, 7, 19. New York (1935). **a - 392**

Figures showing the progress of shipping in the Port of Triest during the first two months of 1935; increase of the clearings at the Port of Naples during the month of January 1935; construction at this port of warehouses to be operated as general bonded warehouses; building of a new grain silo and a cold storage plant.

**Jessen Otto** - Neue Landgewinnungs - und Landsicherungsarbeiten an der Westküste Schleswig-Holsteins [*De novis operibus foraneis in litoribus occidentalibus* Schleswig-Holstein *nomine*]. 1 Taf., Peterm. Mitt., LXXX, 1, 10-15. Gotha (1934). **a - 393**

Veröffentlichungen im Interesse der Landgewinnungsarbeiten. Arbeitsprogramm, neue Projekte, ausgeführte Arbeiten und gewonnene Ergebnisse. Zum Schluss folgt an Hand einer grossen Karte eine kurze Betrachtung über die allgemeine Tendenz der Küstengestaltung.

**Kearney Thomas A.** - The Golden Gate and San Francisco Bay Bridges [*De pontibus ad regionem* Golden Gate *et sinum Sancti Francisci pertinentibus*]. 8 photos full-page, 1 table, 1 diagr. U. S. Nav. Inst. Proc., LXI, 386, 476-488. Annapolis, Md. (1935). **a - 394**

Attempt to set forth in a brief manner some of the salient features common to the Golden Gate Bridge, which is to span the Golden Gate from Fort Point on the San Francisco shore to Lime Point on the Marin shore, and the San Francisco-Oakland Bay Bridge, which is to cross the Bay from Rincon Hill in San Francisco to Yerba Buena Island, thence to the Oakland Shore. The comparable characteristics of the new bridge buildings as well as the comparable dimensions of the San Francisco-Oakland Bay Bridge and the World's largest bridges are shown.

**Lagoubie A.** - L'Afrique et l'Espagne. Le tunnel sous le détroit de Gibraltar [*De Africa atque Hispania. Transitus submarinus per Sinum Gaditanum*]. L'Afr. Fr., XLIII, Mai, 288-289. Paris (1933). **a - 395**

Travaux de la Commission espagnole créée en 1928. Histoire des divers projets.

**Leeds Charles T., Vanoni Vito A. & Knapp Robert T.** - Solving a Flood and Beach Protection Problem with an Hydraulic Model. A Study of San Gabriel River Mouth at Alamitos Bay Inlet, California [*De inundatione atque tutela cuiusdam sinus moduli hydraulici auxilio resolutis. De perspectis accessibus ad flumen Sancti* Gabriel *in baja* Alamitos (*in California*)]. 15 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part II, 579-593. Washington D. C. (1934). **a - 396**

Physical condition, by Ch. T. Leeds. Apparatus and technique of model-study, by V. A. Vanoni: general description of laboratory; operating technique: construction of the model of Alamitos Bay, running of tides, production of waves; river-flood, model-surveys. Experimental results and conclusions, by R. T. Knapp. Practical application of laboratory results, by Ch. T. Leeds: the author claims that the model-test clearly indicated the best solution of the complicated problem of flood and beach protection and made it possible to design the necessary control-works with far greater certainty of results than would have been possible by any mathematical calculation.

**Roletto G.** - Porti, Cantieri e Navi d'Italia [*Portus, Navalia, Navesque Italici*]. Vannini, Brescia (1934). **a - 397**

**Smith H. Gerrish** - World Shipbuilding During 1934 [*De maritimis constructionibus totius mundi a. 1934*]. 1 table. Naut. Gaz., CXXV, 1, 7-8 & 33. New York (1935). **a - 398**

Statistical statements on the volume of merchant tonnage construction in the United States and the other countries; trends in employment on new construction and ship repair during the year shown by figures reported by the members of the National Council of American Shipbuilders.

**Steed R. H.** - Singapore Port Development [*Portus* Singapore *eiusque progressus*]. 4 figs., 3 phot. The Far Eastern Rev., XXIX, March, 134-136. Shanghai (1933). **a - 399**

**Toutlemonde Georges** - Le port de Casablanca [*Portus* Casablanca]. 14 fig., Génie Civil, CV, 8, 161-164. Paris (1934). **a - 400**

L'état actuel des travaux dans le port. Extensions successives du port. Trafic de Casablanca de 1912 à 1933.

**Ward Harold** - Holland Defeats the Sea. How the Zuider Zee is Being Overcome by the Hand of Man [*Hollandia mare domat. Agitur de* Zuiderzee *ab hominibus exsiccato*]. 14 figs., 1 map. Nat. Hist., XXXV, 2, 132-143. London (1934). **a - 401**

**Winkers Joseph H.** - Savannah-Georgia's Port [*Civitas* Savannah, *Georgianus portus*]. 5 phot. Naut. Gaz., CXXV, 7, 5-10. New York (1935). **a - 402**

Reminding of some historic facts which show that Savannah is the leading port of the South Atlantic; progress of the port shown by the increase of the ship tonnage volume for the Port of Savannah during the calendar year 1934; services and facilities offered by the port: its harbor improvements and maintenance; improvement in the channel depth of the river and considerable extension of the harbor limits; the business of the port; activity in shipping through the Port of Savannah.

**J. L.** - Le transporteur aérien du phare de Nividic (Ile d'Ouessant, Finistère) [*Ductor aërius in pharo constitutus in* Nividic]. 19 fig., Génie Civil, CIV, 17, 373-378. Paris (1934). **a - 403**

Transporteur sur cable pour assurer les communications avec ce phare - le plus occidental de la France, les bornes de virage des navires entre la Manche et l'Atlantique - pour lequel l'accès était difficile et le plus souvent impossible.

**P. C.** - Le pont levant de 81 mètres de portée sur la terre à Newport, près Middlesbrough (Angleterre) [*Pons pensilis in longitudinem m. 81 in* Newport *apud* Middlesbrough (*in Anglia*)]. 10 fig., Génie Civil, CIV, 20, 441-444. Paris (1934). **a - 404**

Ce nouvel ouvrage, inauguré le 28 février 1934, est destiné à améliorer les communications dans la région industrielle de Middlesbrough. Pont métallique à cinq travées entièrement sondé.

**An.** - Le Canal Albert [*Canalis Albertus*]. 3 phot., 1 carte, 2 pl. Ann. Trav. Publ. Belgique, XXXV, 5, 757-772. Bruxelles (1934). **a - 405**

Inauguration solennelle de la section Lanaye-Lanaken par L. L. M. M. Le Roi et La Reine. Notice distribuée à l'occasion de l'inauguration de la section: I. Quels sont les ouvrages mis en exploitation ? II. Quels sont les avantages offerts à la navigation. III. Description des ouvrages rencontrés. IV. Les deux parties du programme. V. Ce qui reste à faire entre Haccourt et Lanaken. V. Continuation du programme. VI. Les caractéristiques du canal Albert.

**An.** - L'expédition marine de transport dans l'embouchure du fleuve Lena en 1933 [*De subvectione quadam maritima ad accessum fluminis* Lena, *a. 1933*]. (En russe). Bull. Arct. Inst., 5, 216-218. Leningrad (1934). **a - 406**

Compte rendu de l'expédition organisée dans le but de transporter dans la Baie Tixi (embouchure du fleuve Lena) 5240 tonnes de chargement et 2430 tonnes de chargement dans la Baie de Nordwick. La flottille se composa de trois vapeurs de 3100 tonnes et du brise-glace « Krassine ». Dans la présente note l'A. décrit l'état des glaces sur le trajet parcouru entre Léningrad et l'embouchure de Léna, ainsi que les différentes phases du voyage, qui dura du 17 juillet au 28 octobre 1933.

**An.** - Le port de Haïfa (Palestine) [Haïfa *eiusque portus*]. Génie Civil, CIV, 9, 211. Paris (1934). **a - 407**

Note succincte sur les récents travaux en exécution dans ce port. L'une des branches de la pipe-line amenant le pétrole de l'Irak doit aboutir à Haïfa.

**An.** - Les travaux d'amélioration et d'extension du port de Saint Malo–Saint Servan [*De operibus peractis pro restitutione et amplificatione portus* Saint Malo–Saint Servan]. Journ. Mar. March., 23 Nov., 2287-2291. Paris (1933). **a - 408**

**An.** - The Autonomous Port of Havre [*Portus Gratiae*]. 8 figs., Naut. Gaz., CXXIV, 4, 6-9. New York (1934). **a - 409**

Recent works. Passengers traffic. Facilities to increase the efficiency of the port. The Havre Bourse.

**An.** - The New Port of Southampton [Southampton *eiusque novus portus*]. 2 figs., Naut. Gaz., CXXIV, 8, 9-10 & 13 & 29. New York (1934). **a - 410**

Some historical remarks. New works.

**An.** - Port of Valparaiso Expands Services [*Portus* Valparaiso *munera amplificat*]. 4 photos, 2 tables. Naut. Gaz., CXXV, 5, 7-8. New York (1935). **a - 411**

To complete an article published in the July 21st issue of Naut. Gaz. containing information regarding conditions of the Port of Valparaiso, Chile, in the present note is given some information on the expanding of the equipment of the Port with the construction of a refrigerated storage plant, comprising the most up-to-date facilities in this type of installation. In two tables statements are gathered concerning the vessels that entered and sailed from the port during year 1934.

**An.** - The Port of Antwerp Attaining Record Trade Pace [*Antuerpiensis portus summam attingit mercium frequentiam*]. 10 photos, 3 tables. Naut. Gaz., CXXV, 6, 5-8. New York (1935). **a - 412**

Partial recovery of Antwerp, which is easily first among the principal continental North Sea ports, from the effects of the world-wide depression. Statistical statement of its traffic. The proper and natural advantages of the Port of Antwerp; table of the seaborne goods traffic covering the period 1929-1934; favourable influence of the powerful growth of industry and commerce in Belgium upon the brilliant development of Antwerp; the late extensions and equipment of the port; its unlimited possibilities.

## Operae submarinae - Mersiones - Scaphandrarii - Cava.

**Cornish Robert E.** - Improving the Underwater Vision of Lifeguards and Naked Divers [*De visione subaquanea in melius reddenda ad usum navicularum quae nautis auxilium ferunt*]. Journ. Opt. Soc. Amer., XXIII, 430. New York (1933). **a - 413**

The author describes two lens combinations one of which improves underwater vision to such a degree that newsprint may be read by its aid.

**Davis Robert H.** - Deep Diving and Under-Water Rescue [*De scaphandrariis eorumque operibus in maris profunditatibus*]. 40 ills., 62 pp., R. Soc. of Arts. London (1934).

( — ) Rev. in: Nature CXXXV, 3404, 135-136. London (1935). **a - 414**

The four Thomas Gray lectures delivered by the author in February 1934, and dealing with the story of divers and diving from the old times to the flexible and armoured deep-water diving dresses of to-day. Description of diving-bells and submarine observation chambers; illustration of the problem of « decompression »; the more notable operations in deep water for the recovery of treasures or ships; description of the author's own invention, the submarine escape-apparatus, now introduced on H. M. Submarines.

**Dorello Ferdinando** - La deazotazione del palombaro [*De scaphandrariorum deazotatione*]. Ann. Med. Nav. Colon., II, 5-6, 650-662. Roma (1934). **a - 415**

L'A. ha studiato nell'uomo e nell'animale la deazotazione a pressione normale a mezzo dell'ossigeno puro. Risulta che dopo breve tempo di respirazione con detto gas si ha una deazotazione polmonare completa ed una solamente parziale dei tessuti. Ritiene che questo ultimo fatto sia dovuto principalmente alla grande affinità che l'azoto presenta per i grassi dell'organismo. Resta dimostrata l'efficacia dell'ossigeno come mezzo di deazotazione e la sua possibile applicazione anche su organismi sottoposti a pressione superiore alla norma. L'A. si riserva di fare sull'argomento ulteriori ricerche.

**Gavira José** - La maxima immersión humana [*De maxima immersione quam homines attingere possunt*]. Bul. Soc. Geogr. Nac. LXXIV, 8, 485-486. Madrid (1934). **a - 416**

El buzo Raffaelli de la Sociedad Italia de Salvamentos « Sorimo » ha conseguido bajar a una profundidad de 1200 pies (365 metros), utilizando un nuevo tipo de traje.

**Gorry W. A.** - Training Divers [*Scaphandrarii. De exercitationibus*]. 5 figs. on table. U. S. Nav. Inst. Proc., LXI, 393, 1674. Annapolis, Md. (1935). **a - 417**

On the methods employed at the Deep Sea Diving School at the Washington Navy Yard, established in 1928.

**Guerillot A.** - Méthodes de protection des métaux contre la corrosion [*De tutela metallorum in corrosionem*]. 51 fig., 254 pp., J.-B. Baillière et fils. Paris (1934). **a - 418**

Etant donné que l'on estime que l'oxydation détruit chaque année le cinquième de la production mondiale des fontes et aciers, il est extrêmement important de trouver des moyens pour protéger les métaux de cet effet nuisibe de l'oxydation. Dans le présent volume l'A. passe en revue les différents procédés de protection des métaux, à savoir: les méthodes électrolytiques, les procédés thermiques, les procédés de cémentation, les procédés par volatilisation (Shoop), par phosphatation, superficielle (Parker, Bonder), par oxydation; enfin il décrit la protection des métaux contre la corrosion par les peintures, vernis gras, vernis cellulosiques, etc.

**Iredale T., Johnson R. A. & McNeill F. A.** - Destruction of Timber by Marine Organisms in Port of Sydney [*De lignorum destructione per organisma marina in portu* Sidney]. 148 pp., tables, diagr., figs and suppl. pls. Sydney Harbour Trust. Sydney (1933). **a - 419**

Record of the first few years of work inaugurated by Sydney Harbour Trust Commissioners to study marine pile destruction as affecting territory of Port of Sydney, Port Jackson, New South Wales; biological survey; crustacean boring pests, cobra or shipworms; marine animal and plant growths; protective measures and bark protection.

**McMurry C. J.** - Laying Submarine Cable [*De cavis ponendis*]. Electr. Journ., XXXI, 12, 480-481. Cincinnati (1934). **a - 420**

Illustrated description of method of laying a cable of 33.000 V. made by Virginia Electr. & Power Co, under Pamunkey River, West Point, Va.

**Rosani Sergio** - Gli ultrasuoni e il loro impiego per l'esplorazione subacquea [*De ultrasonis ac utilitate ex iis percipienda pro exploratione subaquanea*]. 24 fig., Alta Fr., 2, 168-195. Milano (1934). **a - 421**

Richiamati brevemente alcuni principî teorici sulle onde elastiche e sulla loro propagazione attraverso l'acqua di mare, si descrive il proiettore piezoelettrico, ideato da Langevin, per la produzione delle oscillazioni ultrasonore. Successivamente si esaminano alcuni tipi di apparati da scandaglio e da esplorazione orizzontale, attualmente impiegati sulle navi.

**Sannio Luigi** - Un moderno cavo telegrafico sottomarino: il cavo da S. Amaro (Portogallo) a La Panne (Belgio) [*Hodiernum cavum telegraphicum submarinum a* S. Amaro (*in Lusitania*) *ad* La Panne (*in Belgio*)]. 21 fig., Alta Fr., 4, 444-473. Milano (1934). **a - 422**

Il cavo S. Amaro-La Panne (1930) della Italcable è l'ultimo cavo telegrafico di grande lunghezza che sia stato posato; rappresenta perciò anche oggi una delle più moderne espressioni della tecnica. Dopo alcuni rapidi cenni sullo sviluppo dei cavi con induttanza e sulle difficoltà particolari, che presenta per essi l'attuazione del servizio in duplex, sono sommariamente illustrate le caratteristiche dei cavi muniti di induttanza solo nel tratto mediano ed è esposta, dalla specificazione delle norme di capitolato alle prove in fabbrica ed al collaudo finale, l'opera compiuta dal servizio tecnico della Italcable. I collaudi eseguiti sul cavo in opera confermano la bontà dei procedimenti adottati. Viene ancor fatto cenno dei mezzi tecnici con cui si proteggono i cavi dai disturbi eventuali e parassiti, e sono esposte le esperienze, eseguite per la prima volta durante la posa di questo cavo, per verificare l'effettivo conseguimento di un alto grado di immunità.

**An.** - Tiefsee-Bergungen [*De salvatione e maris profunditatibus*]. 5 Abb., Dtsch. Bergwerks-Ztg., 4, 39-41. Düsseldorf (1935). **a - 423**

Beschreibung eines Unterseebootes, von welchem alle aussen zu leistenden Arbeiten vom Boots-innern aus geleitet und überwacht werden können. Arbeiten, welche in Verbindung mit Spezialvorrichtungen und besonderen Fahrzeugen an der Oberfläche ausgeführt werden können. Spezialeinrichtungen. Beschreibung einer neuen Hebemethode. Möglichkeit einer U-Bootskatastrophe vorzubeugen.

**An.** - Cables Across Belfast Harbour [*De cavis in portu* Belfast]. Electr. Times, LXXXVI, 2233, 225-226. London (1934). **a - 424**

Description of laying of six big submarine cables across bed of Victoria Channel between East and West Twin Islands.

**An.** - The Cable Repair Ship H. M. T. S. « Monarch » [*Navis ad cava submarina inspicienda, nomine* « Monarch »]. Nature, CXXXIV, 3388, 527. London (1934). **a - 425**

Brief description of the ship and of the special gear necessary for carrying out all the operations required in cable laying and repair.

# VARIA

## Res nauticae – Folklore – Historia politica, militaris et mercatoria marium – Vocabularia nautica – Legislatio nautica.

**Andreaus Fausto** - L'impresa di Nemi [*De exsiccatione lacus Nemorensis*]. Riv. Cult. Mar., X, 7/8, 261-267. (Roma) (1935). **a - 426**

Considerazioni sull'arte meccanico-navale dei Romani, basate sull'esame delle navi di Nemi.

**Andreotti Aldo** - La tecnica dei noleggi marittimi [*De locationibus maritimis*]. Istit. delle Ediz. Accad. Udine (1935). **a - 427**

Analisi di una grande quantità di reali documenti relativi ad effettive contrattazioni.

**Aubert J.** - Dictionnaire Technique Illustré: Français, Allemand, Anglais, Espagnol, Italien, Néerlandais [*Lexicon technicum pictum Gallicum, Germanicum, Anglicum, Hispanicum, Italicum, Hollandicum*]. Nombr. fig., 88 pp., Ass. Int. Perm. Congr. Navig., Bur. Exéc., Secr. Gén. Bruxelles (1934). **a - 428**

Chapitre X du Dictionnaire Technique en six langues que la Commission Internationale Permanente des Congrès de Navigation a décidé d'élaborer et de publier à l'intention des membres de l'Association et des techniciens du monde entier qui s'occupent des travaux hydrauliques, de l'aménagement, de l'outillage, de l'exploitation des ports et des voies navigables.

**Bargoni Umberto** - Sciaraff pilota di Sambuchi [*Enarrationes maritimae*]. Giusti. Livorno (1935). **a - 429**

Libro di racconti dell'Oceano Indiano e della foresta somala.

**Beebe William** - Mille metri sott'acqua. (Half Mile Down) [*De immersione in profundum m. 1000*]. 124 fig. e 12 tav. col., V. Bompiani. Milano (1935). **a - 430**

Traduzione di Carlo Coardi. Prefazione di G. Scortecci.

**Benoit Pierre** - Les grandes escales. Océanie Française [*De magnis stationibus maritimis. Oceania Gallica*]. Fig., ill., phot., pl., carte, 152 pp. Editions Alpina sur les presses de l'I. G. D. A. de Novare (Italie). Paris (1933). **a - 431**

Livre à caractère artistique. Impressions de Nouméa, des Nouvelles Hébrides et de Tahiti.

**Beutin Ludwig** - Der Deutsche Seehandel im Mittelmeergebiet bis zu den Napoleonischen Kriegen [*De germanica mercium frequentia per Mediterraneum usque ad bella Napoleonica*]. 3 Bildtaf., xvi + 217 S., Karl Wachholtz Verl. Neumünster i. Holst. (1935). **a - 432**

Der erste Band der Abhandlungen zur Handels- und Seegeschichte im Auftrage des Hansischen Geschichtsvereins hrsg. von Fritz Rörig und Walther Vogel. Das Werk ist auf ein sorgfältiges Studium der italienischen, südfranzösischen und deutschen Archive gegründet und

gibt ein klares Bild der Entwicklung der direkten Schiffahrt der deutschen Seestädte nach dem Mittelmeergebiet vom Ende des 16. Jahrhunderts bis zur napoleonischen Zeit.

**Blake W. T.** - Ports of Call [*De portibus auxiliatoribus*]. Ills., 1 sketch-map, 184 pp., Grayson & Grayson. London (1933). a - 433

This book is written in order to rouse the desire in people for travelling; it describes especially many noteworthy places in and around the Caribbean, the South Atlantic, the Mediterranean, and the waters of Scandinavia.

**Blake W. M.** - Taking Off the Lines of a Boat [*Delineatio linearum caracteristicarum cuiusdam naviculae*]. 4 pls., Mar. Mirr., XXI, 1, 5-11. London (1935). a - 434

The purpose of this article is to show the simplest way in which the lines of a craft can be recorded on paper. Since the aim of the author is practical, he has selected two crafts, i. e. the « Ossie », an Aldeburgh sprat boat, and the « Nellie », a decked boat built by a master of his trade, whose lines he has actually taken off by himself, one being a clincher-built open boat and the other decked and of carvel construction.

**Braikovitch Wladislaw** - Etude historique sur le Droit Maritime privé du Littoral yougoslave [*Studium historicum juris maritimi privati quoad litus Jugoslavum*]. 335 pp., Sémaphore de Marseille. Marseille (1933). a - 435

**Bredt Alexander** - Weyers Taschenbuch der Kriegsflotten 1935 [*Classis elenchus* Weyer *nomine. A. 1935*]. Lebmanns. München (1935). a - 436

**Breuille E.** - A prendre un ris dans les huniers [*De velis reducendis, tempestatibus perdurantibus*]. 2 fig., 1 pl., 1er Bull. Trim., Ass. Amis Mus. Mar., 170-174. Paris (1934). a - 437

L'A. illustre sur la base d'exemples et de témoignages bien fondés la manœuvre pour prendre les ris et revendique pour les marins européens les perfectionnements et les modifications qui ont rendu moins difficile la toujours difficile opération de prendre des ris.

**Busch von Forstner** - Krieg auf sieben Ozeanen [*Bellum septimarinum*]. Brunnen-Verlag Willi Bischoff. Berlin (1934). a - 438

Blätter auf den Krieg der Torpedoboote und der kleinen Schiffe.

**Caird James** - A Museum in the Making [*De museo quodam parando*]. 2 figs., The Syren and Shipping. London (1935). a - 439

Short account of the inception of the National Maritime Museum at Greenwich. Parliamentary action. Treasures in the Museum.

**Campos Mario (de)** - O problema do acesso ao mar [*De accessibus ad mare*]. Bol. Soc. Geogr., Jan.-Abril, 51 Ser., 28-31. Lisboa (1933). a - 440

O acesso dos Estados ao mar. Los problemas estabelecidos pelo conflito mundial na Europa.

**Campos Mario (de)** - A batalha aérea do Atlantico [*De aërionavigatione atlantica*]. (Av. rés. franç.). Bol. Soc. Geogr., 52 Ser., 3/4, 106-108. Lisboa (1934). a - 441

Le double caractère technique et politique des traversées aériennes de l'Atlantique; la concurrence des différents pays; accroissement de l'importance du problème de la liberté des mers par suite de la naissance du problème de la liberté des airs.

**Childs Leslie** - Current Admiralty Decisions [*Sententiae sumptae per Classis Praefecturam*]. Naut. Gaz., CXXV, 3, 14. New York (1935). a - 442

Some information on jurisdiction concerning alien loss of re-entry permit, damage to bridge, pilot grounding vessel liability etc.

**Codebò Paola Olga** - Sur l'eau [*De maritimis denominationibus*]. 308 pp., Licinio Cappelli. Bologna (1935). a - 443

Mots maritimes français-italiens groupés et expliqués d'après les idées. Livre destiné aux Instituts Navals. (2e édition).

**Coontz Robert E.** - True Anecdotes of an Admiral [*Memoriae alicuius Almiragii*]. 123 pp., Dorrance & Co. Philadelphia (1935). a - 444

In this book the author, who has been chief of Naval Operations and Commander in Chief of the United States fleet, relates 109 stories and anecdotes of his service in all parts of the world.

**Cuesta U.** - Alto mare [*In mare altum*]. Bemporad. Firenze (1934). a - 445

**De Lalla Alfonso** - Legislazione e regolamentazione italiane in materia di prede marittime durante la guerra 1915-1918 [*Agitur de italicis legislatione et praeceptis quoad praedas maritimas, bello 1915-1918*]. Istit. Poligrafico dello Stato. Roma (1935). a - 446

Legislazione menzionata nelle sentenze della Commissione delle Prede per la Grande Guerra. Indice cronologico e sistematico. Appendice: testo integrale della Dichiarazione di Londra 1909, della VI e XI Convenzione dell'Aia 1907, degli articoli 207 e 281 del vecchio Codice di commercio.

**De Luigi Giuseppe** - La Francia dell'altra sponda. L'Algeria [*De Algaria, idest Gallia transmarina*]. - It. Colon., XI, 6, 84. Roma (1934). a - 447

È esaminata in sintesi l'opera di colonizzazione compiuta dalla Francia in Algeria, nel periodo posteriore al 1870 e fino ai nostri giorni.

**De Rossi Filippo** - La tecnica del trasporto merci per mare attraverso il Consolato del Mare [*De maritima mercium subvectione a sec. XII ad sec. XVII*]. Ann. R. Ist. Sup. Nav., III, 2, 201-221. Napoli (1934). a - 448

L'A. tratta della tecnica del trasporto merci per mare in un periodo che va dal XII secolo al XVII. Egli dimostra che nelle sue grandi linee la tecnica moderna ha conservato una profonda impronta di quei tempi.

**Dieuzeide R. & Verdier A.** - Le Crédit Maritime Mutuel. Son application en Algérie [*Fides pecuniaria maritima mutua eiusque applicationes in Algaria*]. Bull. Trav. Stat. Aquicult. & Pêche, Castiglione 1933, 1, 107-125. Alger (1934). a - 449

La législation. Garanties exigées des emprunteurs par la loi.

**Ducci G.** - La Gran Bretagna nel Mediterraneo [*De Anglia in mari Mediterraneo*]. Riv. Maritt., a. LXVII, 11, 169-174. Roma (1934). a - 450

Sovra alcune idee serpeggianti in qualche ambiente inglese di futuri eventuali nuovi orientamenti sul Mediterraneo, in rapporto al riformarsi della nazione ebrea.

**Franke Gerhard** - Lübeck als Geldgeber Lüneburgs. Ein Beitrag zur Geschichte des städtischen Schuldenwesens im 14. und 15. Jahrhundert [*Contributio in studendas mercium permutationes sec. XIV et XV*]. viii + 1089 pp., Karl Wachhaltz Verl. Neumünster i. Holst. (1935). **a - 451**

Diese Arbeit bildet den vierten Band der Abhandlungen zur Handels- und Seegeschichte im Auftrage des Hansischen Geschichtsvereins hrsg. von F. Rörig und W. Vogel. Ein Abschnitt der hanseatischen Geschichte mit dem Salzhandel von Lüneburg und dessen wirtschaftlichen Beziehungen.

**Galileo Galilei** - Le Opere [*Opera omnia*]. Vol. XII [Ristampa della Edizione Nazionale sotto gli auspici del R. Ministero della Educazione Nazionale, della R. Accademia dei Lincei e del Consiglio Nazionale delle Ricerche], 527 pp., Tip. Barbèra-Alfani e Venturi, proprietari. Società Anonima E. Barbèra, Edit., Firenze (1934). **a - 452**

Carteggio di Galileo Galilei nel periodo dal 1614 al 1619.

**Gardner Ernest A.** - Greece and the Aegean [*Graecia et mare Aegaeum*]. Ills., charts, 254 pp., George Harrap & Co. Ltd. London (1933). **a - 453**

**Giordano Antonio** - Seamen's Federation Holds Meeting [*Gentes maritimae foederatae contionem habent*]. Tables, Fish. Gaz., CXXV, 10, 19 & 31. New York (1934). **a - 454**

Genoa Port figures. Italian shipping finances.

**Guichard L.** - Vaisseaux de papier [*Naves chartaceae*]. Plon. Paris (1934). **a - 455**

Roman de caractère naval et historique.

**Hanotaux Gabriel & Martineau Alfred** - Histoire des colonies françaises et de l'expansion de la France dans le monde. Tome VI [*Historia coloniarum Gallicarum. Vol. VIum*]. Nombr. fig., 8 pl., Plon. Ed., 584 pp. Paris (1933). **a - 456**

Madagascar, les Comores, les Iles de France et de Bourbon, le Pacifique français, les Français dans l'Afrique du Sud. Conclusions générales.

**Harrin W. L.** - Best Performances of Transatlantic Express Liners [*De optimis resultatibus a navibus transatlanticis percipiendis*]. 1 table, Naut. Gaz., CXXV, 4n, 10-11. New York (1935). **a - 457**

Table containing statements on the latest and prewar best performances of transatlantic express liners.

**Johnson Charles** - Pirates célèbres du XVIIIe Siècle [*Piratae illustri sec. XVIII*]. N. R. C. Paris (1934). **a - 458**

**Jouzhyne D.** - La vaillance du « Krassine » [*De navis* « Krassin » *egregia navigatione*]. (En ukranien). 167 pp., « Molod. Bolchevik ». Odessa (1934). **a - 459**

**Koppe Wilhelm** - Lübeck-Stockholmer Handelsgeschichte im 14. Jahrhundert [*De Lubecae historia commerciali. Holmiae sec. XIV*]. xv + 299 S. Karl Wachholtz Verl. Neumünster i. Holst. (1935). **a - 460**

Dieser zweite Band der Abhandlungen zur Handels- und Seegeschichte im Auftrage des Hansischen Geschichtsvereins hrsg. von F. Rörig und W. Vogel schildert vor allem die einzelnen kaufmännischen Persönlichkeiten und ihre Organisationsformen.

**La Roerie** - Sur les monstres marins [*De monstris marinis*]. 1 fig., Bull. Soc. Océanogr. France, 80, 1402. Paris (1934). **a - 461**

Quelques réflexions au sujet de l'article de M. François Heyrelles, paru dans le « Bull. » du 15 novembre 1933, sous le titre « Recherches océanographiques au XIIIe siècle ».

**Lion A.** - Schwimmende Inseln im New Yorker Hafen [*De insulis fluctuantibus in portu* New York]. 3 Abb., Umschau, XXXIX, 13, 246-247. Frankfurt a/M. (1935). **a - 462**

Beschreibung einer neuen Art von « Bahnhof », der aus zwei schwimmenden Inseln für Wasserflugzeuge, sowohl für Warenverkehr als auch für Personen-Beförderung besteht, und im East River (Hafen von New York) verankert ist.

**MacGregor Alasdair Alpin** - The Haunted Isles: or, Life in the Hebrides [*De insulis ab Inferis invasis seu de vita in* Hebrides]. Ill., xiv + 320 pp., Alexander MacLecose & Co. London (1933). **a - 463**

**Maddock S. J.** - Sea Shipping Company to Inaugurate New Service to South Africa [*Societas pro navigatione maritima novam in Africam merid. navigationem inaugurat*]. Naut. Gaz., CXXV, 9, 11. New York (1934). **a - 464**

Information on the inauguration of a new American-flag service to South and East Africa, followed by considerations regarding the importance of the African potential markets, and the probable future increase of the commercial exchange between the United States and Canada and British East Africa.

**Magre Maurice** - Pirates, filibustiers, négriers [*Piratae, errones, emptores nigritarum*]. Grasset B. Paris (1934). **a - 465**

**Malgorn Guy** av. collab. **Desmarets** - Lexique technique anglais-français. IIme Edition [*Vocabularium technicum anglicum et gallicum, IIa ed.*]. xx-254 pp., Gauthier-Villars. Paris (1934). **a - 466**

L'A. qui est Lieutenant de Vaisseau, a conçu le présent lexique dans le but d'être particulièrement utile à ceux qui consultent des ouvrages et périodiques en langue anglaise relatifs aux machines-outils, moteurs à combustion interne, T. S. F., constructions navales, etc.

**Maurette F.** - Tour de Pacifique [*De Oceano Pacifico circumnavigato*]. Hachette. Paris (1935). **a - 467**

**McNulty R. R.** - Changing Dual Toll System at Panama Canal [*Agitur de portoriis canalis Panamensis. Quaestio de commutationibus*]. 1 table, Naut. Gaz., CXXV, 5, 9. New York (1935). **a - 468**

Answer to an article published in the February 2nd issue of « Naut. Gaz. » by Mr. Sill, dealing with the most equitable basis for toll assessment at Panama Canal.

**Mentasti G. K.** - Tra gli incanti del Pacifico. Le Isole Hawaii [*De pulcherrimis insulis* Hawaii *in Oceano Pacifico*]. Numer. ill., Vie d'Italia e del Mondo, II, 6, 769-790. Milano (1934). **a - 469**

Aspetto fisico; esplorazione, organizzazione politica delle isole Hawaii. I grandi vulcani. La popolazione. Costumi. Vita commerciale. Il paradiso del Pacifico.

**Modena E.** - Un'avventura sull'Artico (ed altri racconti) [*Eventum in navigando per oceanum Arcticum*]. Riv. Cult. Mar., X. Roma (1935). **a - 470**

In tutti i fascicoli di questa rivista si trovano racconti di vita marinara dell'A. col suo nome o con i pseudonimi Ciai-Ka, Emo.

**Monfreid Henri (de)** - Le naufrage de la «Marietta» [*Naufragium navis* «Marietta»]. 215 pp. Grasset. Paris (1934). **a - 471**

Trois nouvelles décrivant d'une manière pittoresque et poignante le naufrage de la «Marietta».

**Negrotto Cambiaso Federico** - Genova marinara [*De activitate maritima Genuensi sec. XIX et XX*]. 5 tav., Realtà, a. VIII, v. XVI, 1, 8-26, Milano (1934). **a - 472**

L'A. assume come punto di partenza a questo rapido cenno sullo sviluppo del porto di Genova e del suo traffico marittimo, l'avvento della navigazione a vapore che coincide all'incirca con la proclamazione del Regno di Italia. Ecco gli argomenti trattati: Il Porto attorno al 1860. La donazione del Duca di Galliera ed i lavori eseguiti. Sviluppi successivi del Porto e della Marina Mercantile. La costruzione del Consorzio. I lavori dal 1903 al 1914. Sviluppo della Marina mercantile. La guerra mondiale e le sue conseguenze. I benefici effetti del Regime Fascista. Il bacino Emanuele III. I grandi transatlantici di linea. Il bacino B. Mussolini. Vie di accesso. Il «Rex» ed il «Conte di Savoia».

**Niemüller Martin** - Vom U. Boot zur Kanzel [*Bellum navium submergibilium*]. Martin Warneck Verlag. Berlin (1935). **a - 473**

Blätter über den U-Bootskrieg.

**Novo (de) P.** - Posibles causas fisicas de la marinofobia española [*Qua de causa Hispani a navigatione abhorreant*]. Rev. Gen. De Mar., LVII, Julio y Agosto. Madrid (1934). **a - 474**

**Palmer W. C.** - The Activities of the East India Company in Persia und in Persian Gulf (1616-1657) [*Agitur de societate nomine* East India *eiusque activitate in Persia*]. Bull. Inst. of Hist. Res., XI, 42-44. London (1933). **a - 475**

Influence of the Persian commerce and maritime problems on the first Anglo-Indian relations.

**Parkes Oscar** edit. by... - Jane's Fighting Ships, 1934 [*Indices nomine* Jane *longarum navium*]. Ills., photos, tables, Sampson Low, Marston & Co., Ltd. London (1934). **a - 476**

Thirty-eighth annual edition of Jane, appeared in London on December 10, 1934. This new edition seems to be a little more complete than that of last year in the matter of the fleet distribution tables for the various navies, and it contains a number of new photographs of recently completed ships. It contains also a table showing ships laid down by the five principal naval powers during each of the years 1922-33, inclusive.

**Peacock J. C.** - United States Shipping Board Bureau [*Officium pro navigatione ad Americae Status foederatos pertinens*]. 2 figs., U. S. Dpt. Comm. How it serves you etc., Aug., 57-64. Washington D. C. (1934). **a - 477**

After some introductory remarks, emphasizing the vital necessity for the United States of an American merchant marine, author describes the situation of American commerce during and after the war, the foundation of the U. S. Shipping Board and its shipbuilding program, the legislation and executive action of the Board, the divisions of the Shipping Board Bureau, the divisions of the Merchant Fleet Corporation, the Shipping Board Program: first, administering the affairs of the Merchant Fleet Corporation, and second, conducting the more important and permanent work of promoting the development of the American merchant marine, and regulating the rates and practices of privately owned steamship companies of all flags operating to or from American ports.

**Reisenberg Felix** - The Rough Log.-New Sea Laws [*Leges novae maritimae*]. Naut. Gaz., CXXV, 4, 25. New York (1935). **a - 478**

Author points out that the speed and size of vessels, have increased the hazards of internal injuries by geometrical proportion, and claims the necessity of laws, representing the result of an international agreement, concerned with the maximum tonnage allowed for liners to be built, and the maximum number of passengers to be carried per ton of displacement. One of the greatest problems is, as author shows, the complete reorganization of the personnel of the commercial sea service, which needs a better training plan, devised by seamen and conducted by seamen.

**Richter Rud.** - Warum die ozeanographische Terminologie sich nicht durchsetzen kann [*Qua de causa terminologia oceanographica non effici possit*]. 1 Abb., Senckenbergiana, 14, 4/5, 220-231. Frankfurt a. M. (1932). **a - 479**

Unter Hinweisung auf die in 1904 vom Reichsmarineamt und in 1932 von A. Schwarz veröffentlichte ozeanographische Terminologie werden hier die folgenden Ausdrücke erörtert: Tide, Gezeiten: Tide, Tiden. Niedrigwasser, Hochwasser: Niedrigtide, Hochtide. Flut, Ebbe: Steigtide, Falltide. Uebermeereszeit, Untermeereszeit. Tauchbereich. Ausserdem werden neue Vorschläge zur Beseitigung einiger in der Terminologie vorbefindlichen grundsetzlichen Fehler mitgeteilt.

**Roberts Kenneth** - Captain Caution [*Agitur de quodam navis praefecto cui nomen Cautio datum est*]. 10 draws., 1 map., Doubleday, Doran & Co., Inc. New York (1934). **a - 480**

Absorbing story of the war of 1812, containing the description of doldrums, battles, and imprisonments of the heroes of the book, whose historical value is enhanced by the portrayals of ship construction, navigation, guns, and equipment, which are authentic. A map and drawings of ten ships of the period render the story a valuable contribution to literature and history.

**Röhlk Otto** - Hansisch-norwegische Handelspolitik im 16. Jahrhundert [*De commerciali politica hanseatico-norvegica sec. XVI*]. viii + 92 S. Karl Wachholtz Verl. Neumünster i. Holst (1935). **a - 481**

Diese Arbeit bildet den dritten Band der Abhandlungen zur Handels- und Seegeschichte im Auftrage des Hansischen Geschichtsvereins hrsg. von F. Rörig und W. Vogel. Die Geschichte der hansisch- norwegischen Wirtschaftsbeziehungen in der ersten Hälfte des 16. Jahrhunderts mit besonderer Berücksichtigung des Vertrags von Odense 1560 und seiner Folgen.

**Seewert W.** - Die geographischen Grundlagen der deutschen Seestellung [*Momentum maritimum Germanicum quoad Geographiam*]. Ztschr. f. Geopolitik, X, 5, 270-280. Berlin (1933). **a - 482**

**Simpson Edward** - Yarnlets [*Enarrationes maritimae*]. G. P. Putnam's Sons. New York (1934).

(—) Review by Lt. Comm. A. K. Rooks, in «U. S. Nav. Inst. Proc.» LXI, 383, 113, Annapolis, Md. (1935). **a - 483**

The author calls his work «A collection of sketches which may bring out in a way the human side of Navy life, which might be of interest to those non associated with the daily life and experiences of a naval man».

**Smogorzewski Casimir** - Poland's Access to the Sea [*Polonorum accessus ad mare*]. Maps, 468 pp., G. Allen & Unwin. London (1934). **a - 484**

Some considerations concerned with the importance for Poland of a free and secure access to the sea, and the actual state of affairs in Pomorze, Danzig and Gdynia.

**Sobieski Waclaw** - Der Kampf um die Ostsee von den ältesten Zeiten bis zur Gegenwart [*Agitur de dominatione maris Baltici ab antiquis temporibus in hodiernum*]. vi + 269 pp. Markert & Petters. Leipzig (1933). **a - 485**

**Spindler Aro** - La guerra al commercio con i sommergibili [*Agitur de ferendis detrimentis ad mercium frequentiam per naves submergibiles*]. Vol. I: I precedenti. [La guerra sul mare 1914-1918. Pubblicazione dell'archivio della Marina Germanica]. (Tradotto per cura dell'Ufficio Storico della R. Marina dal Capitano di Vascello Raffaele de Courten). [1432 bis] 6 fig., xi–332 pp., Ist. Poligr. dello Stato. Roma (1934). **a - 486**

L'argomento è svolto nei seguenti capitoli: I primi impulsi verso la guerra sottomarina al traffico. La posizione presa dagli Inglesi nelle questioni di diritto marittimo in tempo di guerra. I provvedimenti presi dagli Inglesi nel campo della guerra al traffico dall'inizio del conflitto mondiale fino a metà novembre 1934. Le contromisure ed i progetti tedeschi dall'ottobre al dicembre 1914. L'atteggiamento del governo tedesco nei riguardi della guerra sottomarina al traffico dal punto di vista del diritto internazionale e della politica. I successivi sviluppi nel gennaio 1915. I giorni decisivi dal 1° al 4 febbraio 1915: come si arrivò alla decisione della guerra sottomarina. Fra la decisione e l'esecuzione: dal 4 al 22 febbraio 1915. Sguardo retrospettivo. Il materiale dei sommergibili: i preparativi e le premesse tecnico-militari per la guerra sottomarina. Appendici varie. Bibliografia relativa alle questioni di diritto marittimo in tempo di guerra ed ai provvedimenti inglesi e guerra al traffico. Indice dei nomi di persone.

**Taraknate Das** - La questione del Pacifico vista da un orientale [*Quaestio de oceano Pacifico a viro quodam orientali perspecta*]. Istit. It. per il Medio ed Estremo Oriente. Roma (1934). **a - 487**

L'A. spiega e giustifica la politica navale degli Stati Uniti e considera le ripercussioni della ripresa delle relazioni diplomatiche fra Russia e Stati Uniti e la possibilità di un nuovo conflitto Russo-Giapponese.

**Troup J. A. G.** - On the Bridge [*Praecepta nautica*]. Lich & Covan, Ltd. London (1934). **a - 488**

After a preface, in which author gives a clear interpretation of that portion of the King's » Regulations » referring to the responsibility of captains in Navigation, he presents an important contribution to the science of navigation, with especial reference to the subject of making a passage and the handling of ships.

**Vallese Tarquinio** - Il mare agitato nel dramma shakespeariano [*De tempestatibus apud* Shakespeare]. Ann. R. Ist. Sup. Nav., III, 2, 161-187· Napoli (1934). **a - 489**

Rassegna del teatro shakespeariano per quanto ha tratto al mare: descrizioni di tempesta, di manovre per affrontarle, di calme dopo la tempesta in citazioni dal sommo poeta inglese.

**Vallese Tarquinio** - Cognizioni nautiche dello Shakespeare [*Notiones nauticae shakespearianae*]. Ann. R. Ist. Sup. Nav., IV, 1, 31-60. Napoli (1935). **a - 490**

Richiami nautici nelle opere del poeta. L'A. dimostra com'egli faccia sovente parlare un linguaggio di marinaio ai suoi personaggi.

**Villiers A. J.** - Perros de mar de hoy dia [*De hodiernis nautis*]. Bol. Centro Naval, a. LII, 505. Buenos Aires (1934). **a - 491**

**Wagner Georg** - Die wirtschaftliche Bedeutung des Toten Meeres [*Momentum oeconomicum Lacus Asphaltitae*]. 10 Bild., Umschau, XXXIX, 21, 406-410. Frankfurt a/M. (1935). **a - 492**

Die Bromerzeugung des Toten Meeres beherrscht den britischen Markt. 850 Millionen Tonnen Brom im Toten Meere. Palästina Selbstversorgung an Kalisalzen. Steinsalz im Steinbruchbetrieb. Lots Weib. Der Jordan bringt die Salze. Im Diluvium war das Tote Meer fünfmal grösser als heute. Erdöl zu erwarten. Ein Bad im schweren Salzwasser.

**Wohlenberg Erich** - Ruinen im Wattenmeer [*Antiqua opera inventa in basso fundo quodam marino*]. 8 Abb., Nat. u. Mus., LXII, 1, 25-32. Frankfurt a. M. (1932). **a - 493**

Der Vf. gibt hier eine Schilderung eines neulich gemachten Fundes, und zwar Reste alter Siedlungen im Gebiet der Eidermündung (Westküste Schleswig-Holsteins), welche im Wattenmeer durch die Erosion eines Priels blossgelegt worden sind.

**Wulff Olaf** - A Budapest és Levantei kikötök közötti közvetlen hajòforgalom [*De frequentia mercium a* Budapest *ad portus regionum orientalium*]. (En hongrois). 3 ill., A Tenger, XXV, 1/4, 33-38. Budapest (1935). **a - 494**

**Zimmermann E.** - German Shipbuilding Activities [*De Germanis eorumque constructionibus navalibus*]. Naut. Gaz., CXXV, 8, 26-28. New York (1935). **a - 495**

Overseas traffic. North German Lloyd Far East service. Statistical statements.

**Bibliographia Oceanographica** - Vocabulorum Elenchus prior lexico totius scientiae oceanographicae redigendo. 19 pp., Carlo Ferrari. Venezia (1935). **a - 496**

Raccolta di vocaboli oceanografici nelle lingue: latina, italiana, francese, inglese, tedesca, ricorrenti nella bibliografia. È intenzione della redazione di produrre vari di questi elenchi fino a dare un lessico per quanto è possibile completo per la scienza oceanografica.

**Department of State** - Policy of the United States Toward Maritime Commerce in War [*Praecepta ab Americae Statibus foederatis edita quoad commercium bello*]. U. S. Govmt. Print. Off. Washington (1934). **a - 497**

**Enciclopedia Italiana** - Nave. [*Navis*] 276 fig., Enciclopedia Italiana, XXIV, 341-435. Roma (1934). **a - 498**

Articolo di autori diversi: Belli (Medicina e igiene navale), Cavaglieri (Diritto Internazionale), Fea (Storia moderna della nave e Costruzione navale), Fraccaro (Storia antica della nave), Gleyeses (Architettura navale), Graziani (Diritto privato), Montandon (Etnologia), Nebbia

(Storia della nave dal medioevo al sec. XIX), Zanobini (Diritto amministrativo). Di tale articolo la Direzione Generale dell'Enciclopedia ha curato la pubblicazione come fascicolo separato: Roma. 1935-XIII.

**Ministero delle Comunicazioni. Direzione generale della Marina Mercantile** - La Marina Mercantile Italiana al 31 dicembre 1930–IX. [Relazione del Direttore Generale della Marina Mercantile Italiana a S. E. il Ministro delle Comunicazioni] [*De Italica Marina Mercatoria ad diem 31 Decembris 1930-IX*] 172 tav. f. t., xxvii-1000 pp., Ist. Poligr. dello Stato. Roma (1934). **a - 499**

La Relazione, che è una raccolta di particolareggiate rilevazioni statistiche, consta delle seguenti Parti: Parte I: L'Amministrazione. Parte II: La gente di mare. Parte III: Il naviglio. Parte IV: I servizi marittimi. Parte V: I porti. Parte VI: La pesca. Parte VII: Il demanio marittimo. Parte VIII: I trattati di commercio e di navigazione fra l'Italia ed altri Stati.

**Protectorat de la République Française au Paros. Gouvernement cherifien** - Service du Commerce et de l'industrie. Année 1933. Rapport sur la navigation et le mouvement commercial du Protectorat de la République Française au Maroc [*Munera commercialia et industrialia. A. 1933. Relatio de navigatione et mercium frequentia in Mauretania in tutela Gallorum*]. F. Moncho. xv-50 pp., Rabat, Maroc (1934). **a - 500**

**U. S. Department of Commerce** - Foreign Commerce and Navigation of the United States. The Calendar Year 1932 [*De commercio externarum gentium ac navigatione statuum foederatorum Americae. Kalendarium A. 1932*]. U. S. Govmt. Print. Off. Washington (1933). **a - 501**

**U. S. Department of Commerce** - The United States Department of Commerce. How It Serves You on Land, and Sea, and in the Air [*Sectio commercialis ad Americae Status foederatos pertinens eiusque munera aëre, terra marique*]. Ills., ii-iv, 1-75 pp., U. S. Govmt. Pr. Off., Washington D. C. (1934). **a - 502**

This booklet tells how the Department of Commerce safeguards life, preserves property, and fosters, develops, and promotes the commerce and industry of the United States. It contains a description of the various activities carried on in behalf of the American people by the Branches of this Service Department of the Federal Government. Its contents is as follows: Bureau of Air Commerce, Bureau of the Census, Coast and Geodetic Survey, Bureau of Fisheries, Bureau of Foreign and Domestic Commerce, Bureau of Lighthouses, Bureau of Navigation and Steamboat Inspection, United States Patent Office, United States Shipping Board Bureau, National Bureau of Standards, Business Advisory and Planning Council.

**U. S. Naval Institute** - Naval Customs, Traditions and Usage [*Consuetudines traditionesque maritimae*]. Annapolis, Md. (1934). **a - 503**

This volume due to Capt. Lowette on general naval rules may be of interest not only to American sailors but to every sailor in the world.

**Erre vi** - Cenni sulla pirateria [*De piratis*]. Riv. Cult. Maritt., X, 1/2, 41-56. Roma (1935). **a - 504**

*** *** - Documenti relativi alla politica navale dell'Italia (1922-1930) [*Documenta de Italica politica navali (1922-1930)*]. Riv. Cult. Maritt., X, 7/8, 185-208. Roma (1935). **a - 505**

Estratti di discorsi del Ministro degli Esteri d'Italia.

**An.** - Sculpture d'un vaisseau du XVI<sup></sup>e siècle à Saint–Pierre d'Oleron [*Sculptura alicuius naviculae sec. XVII° in* St. Pierre d'Oleron]. 1 fig. s. pl., 1er Bull Trim. Ass. Amis Mus. Mar., 180. Paris (1934). **a - 506**

Description d'une belle pièce d'iconographie maritime encastrée dans le mur d'une maison de Saint-Pierre d'Oleron.

**An.** - Les idées du grand public sur l'uniforme maritime il y a cent ans [*Opiniones publicae quoad maritimum vestitum abhinc centum annos*]. Ier Bull. Trim. Ass. Amis Mus. Mar., 179-180. Paris (1934). **a - 507**

Deux extraits de presse de l'année 1933 qui rapportent les opinions des Parisiens d'alors sur l'uniforme des marins et qui ne manquent pas de saveur.

**An.** - Tonnage (Statutes, Art. 34). Tonnage (Statuts, Art. 34) [*Navium pondus (Statuti caput 34)*]. (In Engl. & Fr.). Int. Hydr. Bull., VI, 101. Monaco (Princ.) (1934). **a - 508**

Information on the new tonnage figures for the British Empire.

**An.** - Economy of Transport Overseas [*De oeconomia quoad subvectiones transmarinas*]. Nature, CXXXV, 3405, 169-170. London (1935). **a - 509**

Brief outline of the history of the development of freight carrying by steam vessels, and of the early history of cargo ships, followed by the summary of the Thomas Lowe Gray Lecture delivered to the Institution of Mechanical Engineers by Mr. L. St. L. Pendred, especially concerned with tramps and freighters and entitled « A Survey of Ship and Engines ».

**An.** - My Ship [*Navis quae ad me pertinet*]. U. S. Nav. Inst. Proc., LXI, 386, 572. Annapolis. Md. (1935). **a - 510**

Poetry reprinted from the « Nautical Magazine », Glasgow, February 1935, and containing practical advice on navigation.

## Biographiae et necrologiae.

**Ångström Anders** - Axel Wallén. Ymer, 2, 187-195. Stockholm (1935). **a - 511**

Nécrologie de M. le Dr Axel Wallén, né en 1877 mort en 1935, chef de l'Institut de Météorologie et d'Hydrologie à Stockholm.

**Baume Pluvinel M. A. (de la)** - Discours prononcé aux obsèques de M. B. Baillard [*Laudatio funebris in memoriam domini* M. B. Baillard]. 1 photo., Ann. 1935. Bur. Longit., D. 1-D. 4. Paris (1934). **a - 512**

Biographie et résumé des travaux du grand astronome, créateur du Bureau International de l'Heure.

**Béguinot A.** - L'opera scientifica e marinara del capitano Enrico A. D'Albertis [*Henricus* A. D'Albertis. *Opera scientifica et maritima*]. 2 pl., 31 pp., Atti Soc. Ligustica Sc. Lett. Genova (1933). **a - 513**

**Bourgeois** - Discours prononcé aux obsèques de M. L'Amiral Fournier [*Laudatio funebris in memoriam Almiragii* Fournier].. 1 photo, Ann. 1935. Bur. Longit., E. 1-E. 4 Paris (1934). a - 514

Bref résumé de l'œuvre scientifique de l'Amiral Fournier qui pendant toute sa vie a poursuivi l'étude des trois grands problèmes qui correspondent aux trois pires ennemis du marin: la déviation du compas qui engendre les erreurs de route; le cyclone qui peut entraîner la perte du navire, et le plus grave de tous, la brume qui aveugle le pilote et lui enlève tous ses moyens.

**Broglie Emanuel de** - Un grand marin: Tourville [*Agitur de nauta* Tourville]. Planches, Biblioth. Hist. Plon, 315 pp., Paris (1934). a - 515

La carrière militaire du grand marin. Développement des évènements dans l'ordre chronologique, selon lequel ils se déroulèrent dans les mers différentes. Rapports entre Tourville et le Roi Louis XIV.

**Chapman S.** - Arthur Schuster, 1851-1934. 1 photo, Terr. Magn., XXXIX, 4, 341-345. Baltimore (1934). a - 516

Obituary. Life and work of Sir Arthur Schuster, who for many years influenced the work of the various British magnetic observatories. Summary of Schuster's principal papers with especial regard to his fundamental discovery that research in periodicities, cycles, and related phenomena requires, besides purely analytical calculations, such as harmonic analysis or Fourier series, essentially statistical considerations based on the theory of probability.

**Cooper E. R.** - Captain Philip Bacon [*Philippus* Bacon *navis praefectus*]. Mar. Mirr., XXI, 1, 92-93. London (1935). a - 517

A transcript from « East Anglian Notes and Queries », of an inscription on the north wall of the chancel of Coddenham Church, Suffolk, to Captain Filip Bacon, containing a brief history of his life. There is a short notice of the Captain in the « Dictionary of National Biography ».

**Credner Wilhelm** - Axel Hamberg. Peterm. Mitt., LXXX, 2, 54-55. Gotha (1934). a - 518

Nachruf auf Axel Hamberg Professor Emeritus der Geographie an der Universität zu Uppsala.

**Degli Uberti Ubaldo** - L'Ammiraglio Luigi di Savoia [*Almiragius Aloisius* di Savoia]. Paravia. Torino, Milano, ecc. (1935). a - 519

Libro in cui sono riportate tutte le gesta del Duca degli Abruzzi. Da un prologo in Ispagna, si passa attraverso alla vita del Principe fino alla Sua morte in Colonia.

**Djakonov M. A.** - La mort de l'explorateur polaire danois Knut Rasmussen [*Obitus exploratoris danici* Knut Rasmussen]. (En russe). 1 photo, Bull. Arct. Inst., 2, 76-78. Leningrad (1934). a - 520

Nécrologie et brève description des principales expéditions de Rasmussen. Liste des publications de Rasmussen.

**Fleurey (de) Henry** - Le Vice-Amiral Fournier [*Vice-Almiragius* Fournier]. Bull. Soc. Océan. France, 80, 1403. Paris (1934). a - 521

Nécrologie du Vice-Président de la Société d'Océanographie de France, décédé le 6 novembre 1934.

**Freuchen Peter, Mathiassen Therkel & Birket-Smith Kaj (Hrsg.)** - Knud Rasmussens Mindeudgave [Knud Rasmussen. *Opera edita in memoriam*]. 36 Hefte. Gyldendalske Boghandel, Nord. Forl. København (1934). a - 522

Die bedeutendsten Werke Rasmussens, besonders die erste, zweite und fünfte Thuleexpedition, sind hier vollständig oder teilweise wiedergegeben.

**Gavira José** - Muerte de un explorador polar [*Obitus exploratoris polorum* C. E. Borchgrevink]. Bol. Soc. Geogr. Nac. LXXIV, 10, 612. (adrid (1934). a - 523

Noticia de la muerte del explorator sudpolar noruego Carsten Egebert Borchgrevink.

**Gavira José** - Muerte de un oceanografo holandés [*Obitus oceanographi hollandesis* J. P. van der Stok]. Bol. Soc. Geogr. Nac., LXXIV, 10, 624. Madrid (1934). a - 524

Noticia de la muerte del doctor J. P. van der Stok.

**Guariglia Rafael** - El Duque de los Abruzos. Bol. Soc. Geogr. Nac., LXIII, 6, 381-384. Madrid (1933). a - 525

**Harries C. & Thomsen Th.** - Knud Rasmussen. Det Grönl. Selsk. Aarsskr. 1933/34, 12-19. København (1934). a - 526

**Heldring E.** - P. H. Gallé, 1873-1934. 1 fig., Tijdschr. Kon. Ned. Aardr. Gen., Amsterdam, LI, 4, 487-488. Leiden (1934). a - 527

Directeur de l'Institut filial de l'Institut Royal Météorologique néerlandais, professeur de l'École supérieure de la Marine, collaborateur de nombreuses publications d'océanographie, auteur de « La Climatologie de l'Océan Indien ».

**Hesselmann Henrik** - Aleksander Sibiriakoff. (In Swed.). Ymer, 4, 446-448. Stockholm (1933). a - 528

**Hoel Adolf** - Carsten Borchgrevink. 1 fig., Norsk Geogr. Tidsskr., V, 2, 69-71. Oslo (1934). a - 529

Nécrologie.

**Holtedahl O.** - Knud Rasmussen. Norsk Geol. Tidskr., V, 1. Oslo (1934). a - 530

**Isachsen Gunnar** - Adrien de Gerlache. Norsk Geogr. Tidsskr., V, 5, 269-271. Oslo (1935). a - 531

Nachruf. Adrien de Gerlache, belgischer Polarforscher geboren 1866, gestorben 1934.

**Kerr Mark** - Prince Louis of Battenberg, Admiral of the Fleet [*Almiragius Princeps Aloisius* di Battenberg]. Longmans, Green & Co. New York (1934). a - 532

The author writes in the foreword that « this book does not profess to be a complete life of Prince Louis, but only a series of sketches . . . ». Its early chapters are devoted to a trip of Prince Louis through India with the Prince of Whales and his entourage. The remainder of the book treats of the events of his life in chronological order showing steady progress from midshipman to First Sea Lord, and the amount of constructive work he gave to the Navy of his adopted country.

**Koch Nandor** - Kövesligethy Radó (1862-1934). 1 fig., Tenger, XXIV, 7/12, 35-39. Budapest (1934). a - 533

**Lubbock Basil** (transcr. by . . .) - Barlow's Journal of His Life at Sea in King's Ships, East West Indiamen and Other Merchantmen from 1659 to 1703 [*Diarium ad* Barlow *pertinens de eius vita maritima in navibus regiis, nec minus de Indianis occidentalibus et orientalibus ab A. 1659 ad A. 1703*]. Vol. I & II, Hurst & Blacket Ltd. London (1934). **a - 534**

A very interesting contribution to the knowledge of naval conditions in the seventeenth century and a story of life at sea in Restoration days. It has been transcribed from the original manuscript in modern English by Basil Lubbock.

**Mathiassen Therkel** - Knud Rasmussen (In Danish, Engl. Rés.). 1 fig., Sv. Geogr. Årsb. 1934, X, 212-217. Lund (1934). **a - 535**

Obituary.

**Mill Hugh Rob.** - The Life of Sir Ernest Shackleton [Ernest Shackleton. *Biographia*]. Ills., maps., 312 pp., W. Heinemann. London (1933). **a - 536**

**Ogasawaka N.** - Life of Admiral Togo (Transl. by Jukichi & Togo Inonye) [*Almiragius* Togo. *Biographia*]. Seito Shorin. Tokyo (1934). **a - 537**

Opera divisa in otto libri comprendenti le azioni del grande Ammiraglio. Diffuso è il racconto della sua vita in Inghilterra, del periodo della guerra con la Cina e di quella con la Russia.

**Olszewicz Boleslaw** - Jean de Kolno, prétendu précurseur polonais de Colomb [*Johannes* de Kolno *opinatus praecursor Christophori Columbi*]. Rev. Pol. Géogr., XIII, 2/4, 51-65. Varsovie (1933). **a - 538**

**Richter Herman** - Erik Wilhelm Dahlgren (Rés. français). Sv. Geogr. Årsb., 1934, X, 203-211. Lund (1934). **a - 539**

Né en 1848, mort en 1934. Géographe d'histoire et cartographe renommé, ci-devant directeur général de la Bibliothèque Royale de Suède. Il a été reconnu comme le connaisseur le plus éminent de l'histoire de l'exploration de l'Océan Pacifique et a publié plusieurs ouvrages historico-géographiques et cartographiques. Liste de ses publications.

**Rudolphi Hans** - Knud Rasmussen. Peterm. Mitt., LXXX, 1, 18. Gotha (1934). **a - 540**

Nachruf auf den bekannten Nordpolarforscher. Verzeichnis seiner Werke in deutscher, dänischer oder englischer Sprache. Wichtige Beiträge verschiedener Teilnehmer seiner Reisen.

**Shaw Napier** - Sir Arthur Schuster. Quart. Journ. R. Meteor. Soc., LXI, 258, 99-103 (1935). **a - 541**

Obituary with a brief summary of the most prominent works of Sir Arthur Schuster.

**Sherrard O. A.** - A Life of Lord St. Vincent [Lord St. Vincent. *Biographia*]. George Allen & Unwin Ltd. London (1934). **a - 542**

This book has a special value for those who are interested in Naval history for it contains much material now published for the first time. The publication of the book coincides with the 200th Anniversary of St. Vincent's birth.

**Soler Juan Lopez** - Don Vicente Vera Y Lopez. Bol. Soc. Geogr. Nac., LXXIV, 10, 598-603. Madrid (1934). **a - 543**

Biografia y necrologia.

**Somerville Boyle** - Commodore Anson's Voyage into the South Seas and Around the World [*De navigatione a Commodoro* Anson *suscepta per orbem atque ad maria meridionalia*]. Ills., W. Heinemann. London & Toronto (1934). **a - 544**

Anson's life and deeds, described on hand of the accounts of Walter, Pascoe Thomas, John Philips and other sources, in modern English and in the light of modern knowledge.

**Sørensen Jon** - Fridtjof Nansens sage. Trad. en hollandais par Agnes Röntgen [Fridtjof Nansen. *Historia*]. Illustr., 395 pp., D. A. Daamen's Uitg. Mij. N. V. 's-Gravenhage (1934). **a - 545**

**Spiess F.** - Henrik Mohn. Zur hundertsten Wiederkehr seines Geburtstages [*Henricus* Mohn, *centesimo recurrente anno ab eius die natali*]. 1 Phot., Ann. d. Hydrogr., LXIII, 5, 181-182. Berlin (1935). **a - 546**

Gedenkworte, mit besonderer Berücksichtigung der Tätigkeit Mohns in den Gebieten der Meteorologie und der Meereskunde.

**Thorade H.** - Henrik Mohn und die Entwicklung der Meereskunde [*De Henrico* Mohn *et progressibus oceanographicae scientiae*]. 1 Abb., Ann. d. Hydrogr., LXIII, 5, 182-186. Berlin (1935). **a - 547**

1. Geschichtliche Bemerkungen. 2. Mohns Methode. 3. Bjerknessche Kraftfelder. Die Absicht des Vf. der vorliegenden Schrift war es zu zeigen, dass Mohn sich bereits auf dem Wege befand, der bei weiterer Fortsetzung zu den heute allgemein angewandten Methoden der Stromberechnung geführt hätte.

**Turley Charles** - Nansen of Norway [Nansen *Norvegus*]. Second (School). edition, x + 210 pp,, Methuen & Co. Ltd. London (1934). **a - 548**

**Vegard L.** - Ole Krogness and His Work [*De* Ole Krogness *eiusque operibus*]. 1 photo., Terr. Magn. & Atm. Electr., XXXIX, 4, 347-349. Baltimore (1934). **a - 549**

Obituary. The scientific importance of the work and activity of Ole Krogness in the field of the study of cosmic-terrestrial phenomena, of various aurora problems and in the reorganization of Norwegian weather service.

**A. H. K.** - Knud Rasmussen. (En finn.). 1 fig., Terra, 1, 42-44. Helsinki (1934). **a - 550**

**J. D. N.** - Sir Edgeworth David. Rev. Hydrogr., XI, 2, 11. Monaco (1934). **a - 551**

Mort à Sydney (Austr.) dans sa 76ᵉ année, le 28 Août 1934. Il occupa la chaire de géologie à l'Université de Sydney. Il fut Chef du Personnel Scientifique de l'Expédition de Sir Ernest Shackleton à l'Antarctique en 1909.

**J. G.** - Captain R. G. Latta. 1 photo., Mar. Obs., XII, 117, 10-11. London (1935). **a - 552**

Biography by an old shipmate of the Master of the « Empress of Britain ».

**N. R. C.** - Adrien de Gerlache. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LII, 1, 145-146. Leiden (1935). **a - 553**

Océanographe et explorateur des régions polaires, mort en 1934.

**T. C. B.** - Togo. Bol. Centro Naval, LIII, 507. Buenos Aires (1934). **a - 554**

* * * - Contrammiraglio a riposo Luigi Tonta [*De Aloysio* Tonta *Contralmiragio in beneficiis*]. Riv. Marit., LXVIII, 7/8, 81-82. Roma (1935). **a - 555**

Necrologia.

* * * - Senatore Prof. Camillo Manfroni [*Senator Prof. Camillus* Manfroni]. Riv. Marit., LXVIII, 7/8, 82-84. Roma (1935). **a - 556**

Necrologia.

**An.** - 35me anniversaire de l'activité scientifique du Professeur L. S. Berg [*Professor* L. S. Berg, *XXXV*, *recurrente anno ab initio eius activitatis scientificae*]. Bull. Arct. Inst., 6/7, 270. Leningrad (1934). **a - 557**

Bref compte rendu des principaux travaux du savant.

**An.** - Ludwig Amodeus, Herzog der Abruzzen [*Aloysius Amoedeus* Duca degli Abruzzi]. Geogr. Zeitschr., 4, 246. Leipzig (1933). **a - 558**

**An.** - Rear Admiral John Halligan [*Almiragius Johannes* Halligan]. 1 photo, Journ. Amer. Soc. Nav. Eng., LXVII, 1, 165-166. Washington D. C. (1935). **a - 559**

Obituary of the past President of the American Society of Naval Engineers.

**An.** - W. M. Davis [*In memoriam* W. M. Davis]. Nature, 30 june, 973. London (1934). **a - 560**

Obituary.

**An.** - Baron Adrien De Gerlache de Gomery [*De barone Adriano* De Gerlache de Gomery]. Rev. Hydrogr., XII, 1, 7. Monaco, Princ. (1935). **a - 561**

Ancien officier de la Marine belge, ce marin a consacré sa vie à l'étude de la mer. Il fut le premier à tenter l'inconnu d'un hivernage dans la région polaire Antarctique sur son navire la « Belgica » en 1897-99. En 1901 De Gerlache se rendit au Golfe Persique à bord du yacht « Selika » et en rapporta des collections zoologiques. En 1905 de nouveau sur la « Belgica » il alla sur la côte orientale du Groenland. En 1907 et 1909 la « Belgica » travailla dans les mers de Barents, de Kara et dans la banquise du Groenland.

**An.** - Aleksander Sibiriakoff [*Alexander* Sibirjakoff]. (En finn.). Terra, 1, 46. Helsinki (1934). **a - 562**

**An.** - Luigi Palazzo, 1861-1933 [*Aloysius* Palazzo, *1861-1933*]. Terr. Magn., XXXIX, 1, 71-72. Baltimore, Md. (1934). **a - 563**

Obituary.

**An.** - Erich von Drygalski. 1 phot., Umschau, XXXIX, 6, 116. Frankfurt a/M. (1935). **a - 564**

Kurze Biographie und Bericht der von Erich vou Drygalski geleiteten Expeditionen mit besonderer Berücksichtigung der grossen deutschen Südpolarexpedition anf der « Gauss », 1901-1903.

# II.

# OCEANOGRAPHIA PHYSICA

## GENERALIA

### Instituta oceanographica – Relationes publicae – Conventus et conferentiae – Oceanographiae historia – Ars docendi – Bibliographiae.

**Baldwin F. M.** - Marine Station of the University of Southern California [*Agitur de statione maritima ad universitatem in regione Californiensi merid. pertinente*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., part. I, 221. Washington D. C. (1934). **a - 565**

Very brief summary of the routine work of the Station in the direction of trawling and dredging. A preliminary report of some of this work is published in «Science».

**Bassler Ray S.** - Department of Geology [*Agitur de sectione geologica*]. Tables, Rep. U. S. Nat. Mus., 1934, 40-50. Washington D. C. (1935). **a - 566**

Activity of the Department during 1934: accessions, installation and preservation of collections, investigation and research.

**Bianchi D'Espinosa R.** - La partecipazione dell'Istituto Geografico Militare all'Esposizione e al IV Congresso di fotogrammetria di Parigi (1934) [*De Instituto Geographico Militari eiusque participatione Expositionis et Conventus photogrammetrici Parisiis habiti A. 1934*]. Universo, 1, 1-7. Firenze (1935). **a - 567**

A seguito della partecipazione dell'I. G. M. all'Esposizione di Fotogrammetria di Parigi – ed al relativo Congresso – l'A. lumeggia in rapida sintesi le essenziali caratteristiche delle attrezzature fotogrammetriche colà esposte per dedurre che quella appartenente all'I. G. M. (attrezzatura Santoni) è da considerare provvista delle più preziose caratteristiche veramente moderne.

**Chevey P.** - Rapport sur le fonctionnement de l'Institut Océanographique de l'Indochine pendant l'année 1933-34 [*De Instituto Oceanographico Indosinico. Relatio pro A. 1933-34*]. 2 pl., Inst. Océan. Indoch., Stat. Mar. Cauda, 3-21. Saïgon (1934). **a - 568**

Personnel de l'Institut. Son matériel. Recherches scientifiques et techniques: Océanographie physique (hydrologie, températures de surface); Océanographie biologique; Faunistique; Pêche et pisciculture. Utilisation industrielle des produits de la mer et des eaux douces. Rapports avec divers organismes scientifiques.

**Entz Géza** - A Magyar Tengerkutatás [*Inquisitiones oceanographicae Hungaricae*]. 1 fig., Tenger, XXIV, 7/12, 40-44. Budapest (1934). **a - 569**

**Fleming J. A.** - Introduction to the Transactions of the National Research Council [*Introductio in memorias ad* National Research Council *pertinentes*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., part. I, 3-4. Washington D. C. (1934). **a - 570**

Establishment and objects of the American Geophysical Union. Brief account of the annual assemblies of the Union; program and papers presented at the 15th Annual Assembly.

**Fleming J. A.** - The Fifteenth Annual Meeting of the American Geophysical Union [*Agitur de XV° Conventu annuo per Societatem Geophysicam Americanam habito*]. Science, LXXX, 2066, 119-121. New York (1934). **a - 571**

The reports and papers presented at this general assembly were concerned largely with progress in development of the U. S. Weather Service.

**Fleming J. A., Harradon H. D. & Lambert W. D.** - A Short Report of the Fifth General Assembly of the International Union of Geodesy and Geophysics, Lisbon, Portugal, September 1933 [*Relatio compendiosa de V° Consessu plenario Societatis omnium gentium pro Geodesic et Geophysica, habito Olisippone, in Lusitania, mense Septembri A. 1933*]. 1 table, Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., part. I, 24-34. Washington D. C. (1934). **a - 572**

Proposals of the Special Commission of Statutes and Finance; List of the officers elected at the Lisbon assembly by the Union and its associations; summary of the meetings of the Association of Geodesy, of the Association of Seismology, of the Association of Meteorology, of the Association of Terrestrial Magnetism and Electricity, of the Association of Physical Oceanography, of the Association of Volcanology, of the Association of Scientific Hydrology. Resolutions adopted.

**Granqvist Gunnar** - Merentutkimuslaitoksen toiminta vuonna 1933 [*De operibus peractis ab Instituto Oceanographico, A. 1933*]. Merentutkimuslaitoksen Julkaisu, 95, 1-16. Helsinki (1934).

(—) Voir en Suèd.: Havsforskn. inst. skr. 95, Helsinki (1934). **a - 573**

Personnel et direction. Expéditions. Observations du niveau de l'eau. Recherches talassologiques des sta-

tions terrestres. Observations de glace l'hiver 1932-1933. Recherches chimiques. Publications. Administration. Inventaire.

**Harding G. E.** - Meteorology and Climatology in a Teachers College [*Liber de meteorologia et climatologia ad usum magistrorum*]. Monthly Weath. Rev., LXIII, 1, 7-8. Washington D. C. (1935). **a - 574**

The chief purpose of this discussion is to present a brief survey of meteorology as it is taught today in colleges for the preparation of teachers; in such a course the author should attempt to give the student an insight into the physical processes and laws underlying the many different phenomena of weather and climate. In this note a brief outline of a course in meteorology and climatology offered in the teachers college of Pennsylvania is given.

**Helland-Hansen Bjørn** - Det geofysiske institutt [*De Instituto Geophysico*]. Bergens Mus. Årsber. 1933-34, 63-70. Bergen (1934). **a - 575**

Prof. Krogness's death. Visitors. Publication of the « Maud » - expedition. *A*. Hydrographical Section: Investigations, visitors, publications. *B*. Section for theoretical meteorology: Investigations, visitors, publications. *C*. Section terrestrial magnetism and cosmical physics: Investigations, Publications. The geophysical Commission. The Norwegian Geophysical Society.

**Hugo C. F.** - Report on the International Geographical Congress at Warsaw, August 23rd to 31st, 1934 [*Relatio de Conventu Geographico omnium gentium, Varsoviae a die 23 ad 31 mensis Augusti 1934*]. South Afric. Geogr. Journ., XVII, Dec., 35-36. Johannesburg (1934). **a - 576**

Summary of the work made during the congress; excursions and exhibitions.

**Iselin C. O.** - Institutions on the Atlantic Side of Canada and the United States. - Introduction [*De institutis in regione atlantica seu ad Canada seu ad Americae Status Foederatos pertinente. - Introductio*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., part. I, 225-226. Washington D. C. (1934). **a - 577**

Very brief account of the physical investigations in progress during 1933. List of major institutions information has been received from, located on or near the Atlantic seaboard. List of a number of smaller laboratories primarily engaged in biological and physiological researches.

**Lotko S.** - Le Conseil Géodésique de l'Etat. L'Inspection Géodésique de l'Etat [*Consilium Geodeticum publicum. Munera inspectionis geodeticae ad Statum pertinentia*]. (En russe). Gheodesist, 11/12, 5-13. Moskva (1933). **a - 578**

Informations concernant l'institution du Conseil Géodésique de l'État destiné à régulariser et à règlementer les travaux topographiques et cartographiques dans l'URSS. Les buts directs de ces travaux. Fondation d'un organe spécial pour le contrôle des travaux topographiques et cartographiques exécutés dans l'URSS.

**McEwen G. F.** - Report of the Committee on Evaporation, 1933-34 [*Relatio Commissionis pro evaporatione. A. 1933-34*]. (Repr.). Nat. Res. Counc., Trans. Amer. Geoph. Un., 15th Ann. Meet., 296-297. Washington (1934). **a - 579**

List of members of the Committee on Evaporation, of the papers published by some of the members, and summary of requests for various kinds of information regarding the subject of evaporation, especially in relation to practical engineering applications.

**Mecking Ludwig** - Der internationale Geographenkongress in Warschau 1934 [*Geographi omnium gentium Varsoviae conveniunt A. 1934*]. Peterm. Mitt., LXXX, 12, 373-376. Gotha (1934). **a - 580**

Neue Mitglieder der « Union géographique internationale ». Wahl von Präsidenten und Vize-präsidenten. Eröffnungsfeier. Ausstellung der offiziellen Kartographie der Länder. Vorträge und Sitzungen.

**Petersson H.** - Statens Havsforskningsstationer vid Gullmarfjorden [*Stationes publicae Suetiae pro inquisitionibus oceanographicis constitutae*]. Jorden Runt, 505-520. Stockholm (1934). **a - 581**

**Poujche E.** - Service météorologique de la Voie Maritime du Nord [*Servitium meteorologicum ad cursum maritimum Nordicum pertinens*]. (En russe). Meteor. Vestn., 4/7, 179-181. Leningrad (1934). **a - 582**

Sur l'organisation du Secteur Arctique de l'Administration Centrale du Service Météorologique de la Voie Maritime du Nord avec siège à Moscou.

**Prokofjev F.** - Institut de Recherche Scientifique pour la Géodésie, les levés aériens et la cartographie [*Agitur de Instituto pro inquisitionibus scientificis quoad Geographiam, aëriophotographiam et cartographiam*]. (En russe). 2 tabl., Gheodesist, 7/8, 1-6. Moskva (1933). **a - 583**

Fondation de l'Institut Géodésique et Cartographique de l'État, le 24 octobre 1928. Les buts de la nouvelle institution. Plan des travaux de l'Institut pour 1934, concernant l'astronomie et la gravimétrie, la géodésie, les instruments géodésiques, les levés aériens, la cartographie, la méthodologie, l'économie et la standardisation.

**Rittikh P. A.** - Session de la Commission Internationale de l'Année Polaire à Copenhague en Mai 1933 (Météorologie et Aérologie) [*Conventus a Commissione omnium gentium pro anno polari, Hauniae habitus mense Maio A. 1933* (*Meteorologia et Aerologia*)]. (En russe). Meteor. Vestn., 8/10, 257-259. Leningrad (1933). **a - 584**

**Roussinova I. L.** - La Session du Conseil Scientifique de l'Institut Arctique de l'URSS (VAI) [*Agitur de Sectione consilii scientifici ad Institutum Arcticum Sovieticum pertinentis*]. (En russe). Meteor. Vestn., 1/3, 69. Leningrad (1934). **a - 585**

Liste des communications dédiées aux problèmes de la géophysique, et texte de quelques résolutions adoptées.

**Rozner M. J.** (sous la rédaction de.......) - Matériaux de la II^me^ Conférence pour l'Etude des ressources naturelles de la Région du Nord. III. Les transports [*Res collectae perdurante II^a^ Conferentia ad opes naturales studendas in regione nordica. III^a^ Pars: De subvectionibus*]. (En russe). 223 pp., Sev. Kr. Izd. Arkhangheljsk (1933). **a - 586**

Parmi les 18 rapports publiés dans le présent volume les suivants concernent directement l'océanographie et les différents problèmes connexes: A. N. Soboleva - Réorganisation du service hydrométéorologique dans la Région du Nord. N. A. Afanassjev - Le problème du port de Kotlass. G. J. Nalivajko - Exploration du littoral de la Mer Blanche et de l'Océan Arctique en vue de la construction de ports. V. V. Timonov - Exploration hydrologique de la Mer Blanche. A. J. Popov-Vedenskij - Résultats et perspectives de l'étude du régime glaciologique des mers septentrionales. T. P. Marjoutine - Sur la durée de la navigation dans le port d'Arkhangheljsk. T. P. Marjoutine - Sur la durée de la navigation vers le delta du fleuve Indiga. I. D. Protopopov - Sur le régime hydrologique du delta du fleuve Mezenj. A. L. Kirchner - Elaboration des projets pour les ports de la Région du Nord. V. A. Tikhomirov - Perspectives du développement d'un grand cabotage entre les ports du Nord et les ports de la Mer Noire.

**Salistschev K.** - Activité du Secteur Géodésique de l'Institut Arctique Panunionique pour l'année 1934 [*Quaestio de activitate Sectionis pro Geodesia ad Institutum Arcticum Panunionicum pertinentis pro A. 1934*]. (En russe). Bull. Arct. Inst., 1/2, 18-21. Leningrad (1935). **a - 587**

Résumé des travaux exécutés par les expéditions d'exploration géodésique et par les Stations Polaires; résultats de l'élaboration en chambre des matériaux des expéditions de 1923-1933; exécution de quelques travaux particuliers, n'ayant pas un rapport direct aux programmes des expéditions de l'Institut Arctique.

**Schmidt O. J.** - L'exploration de l'Arctique dans l'Union Soviétique [*De navigationibus explorandi causa in regionem Arctidem a Sovietis peractis*]. (En russe). 23 pp., Izd. N.-Izd. Inst. Sov. Atl. Mira. Moskva (1934). **a - 588**

Textes des rapports de la délégation soviétique au Congrès International de Géographie à Varsovie.

**Stålberg Helge** - Internationella Geografkongressen i Warszawa 23-30 Aug. 1934 [*Conventus geographicus omnium gentium, Varsoviae, a die 23 ad 30 mensis Augusti A. 1934*]. Sv. Geogr. Årsb. 1934, X, 221-224. Lund (1934). **a - 589**

Inauguration. Excursions. Réunions des différentes sections, exposition des cartes.

**Thompson T. G. & Utterback C. L.** - Oceanographic Laboratories, University of Washington [*Agitur de laboratoriis oceanographicis in Universitate* Washington]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., part. I, 218-220. Washington D. C. (1934). **a - 590**

Summary of some of the general activities in which the Laboratories were engaged during March 1, 1933 to March 1, 1934. List of 22 scientific papers, published or in course of publication, and 13 other papers for which the experimental work has been completed and which are in preparation. This paper represents the specific work accomplished by the Laboratories.

**Tollner H., Kanitscheider R. & Kopf F.** - Die österreichische Polarexpedition 1932-33 nach Jan Mayen [*De austriaca navigatione ad polos, in insulam* Jan Mayen, *A. 1932-33*]. 49 Photos, 2 Kart., 1 Diagr., 126, Verlagsanstalt Tyrolia. Wien, Innsbruck, München (1934). **a - 591**

Die wissenschaftlichen Ergebnisse sind hauptsächlich erdmagnetischer Art. Schilderung des täglichen Lebens während der Ueberwinterung.

**Twenhofel W. H.** - Division of Geology and Geography [*Partitio geologica et geographica*]. Rep. Nat. Acad. Sc., 1933, 48-53. Washington D. C. (1934). **a - 592**

Report of the Chairman of the Division giving a summary of the progress of the work performed by this Division of the U. S. National Academy of Science with especial reference to accessory minerals in crystalline rocks, batholitic problems, bibliography of economic geology, clay minerals, isostasy, land classification, measurement of geologic time, micropalaeontology, ore deposition, paleobotany, Pan American Institute of Geography and History, petroleum geology, scientific results of drilling, sedimentation, shoreline investigations, Storrow fellowship, stratigraphy, tectonics, reorganization of the division.

**Vaughan T. Wayland** - Institutions on the Pacific Side of Canada and the United States. Introduction [*De institutis constitutis in regione Canadensi et in Americae statibus Foederatis ad oceanum Pacificum spectantibus. Introductio*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., part. I, 215-216. Washington D. C. (1934). **a - 593**

Introduction to the Report of the Committee on Oceanographic Activities of North America during April 1933 to April 1934.

**Voûte E. J.** - International Geografisch Congres te Warschau 23-31 Augustus 1934 [*Conventus geographicus omnium gentium, Varsoviae, a die 23 ad 31 mensis Augusti A. 1934*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LI, 6, 869-882. Leiden (1934). **a - 594**

Nouveaux membres; élection du Président; inauguration, orateurs; conférences et réunions (points de discussion), séance de clôture; commissions; publications.

**Association des Amis du Musée de la Marine** - Rapport annuel 1933 [*Relatio annua 1933*]. 2 pl., ii–xv pp. Paris (1934). **a - 595**

Assemblée générale du 12 Juin 1934. Rapport du Conseil d'administration. Vœu émis par l'A. A. M. M. Rapport du trésorier. Liste des dons au Musée de la Marine. Liste des membres de l'A. A. M. M.

**Association de Géographes Français** - Bibliographie Géographique Internationale 1934 (XLIV Bibliographie Annuelle) [*Bibliographia Geographica Internationalis*]. 676 pp., Armand Colin. Paris (1935). **a - 596**

Compilée comme dans les années passées. Elle contient 2899 fiches.

**Bureau des Longitudes** - Liste du Personnel pour l'année 1934. Table des matières [*Elenchus scribarum ministerii pro A. 1934. Tabula materiarum*]. 3 tabl. de matières, ann. 1935, Bur. Longit., F. 1-F, 48. Paris (1934). **a - 597**

Composition du bureau et liste du personnel pour 1934. Trois tables contenant respectivement: (1) les renseignements de l'« Annuaire » groupés par chapitres et par articles principaux, (2) les principaux articles contenus dans les « Annuaires » des années 1930 à 1934 et non réproduits en 1935, et (3) la plupart des renseignements, indiqués par ordre alphabétique, donnés dans les « Annuaires » de 1930 à 1934 en renvoyant au volume qui les contient.

**Bureau des Longitudes** - Annuaire pour l'an 1935 publié par le . . . avec des notices scientifiques [*Annuarium pro A. 1935 ab officio pro longitudinibus editum cum notis scientificis*]. Tabl., cartes, photos, vii + 558 pp., 5 app., Gauthier-Villars. Paris (1934). **a - 598**

Calendrier pour 1935: Calendrier, prédictions, étoiles, études des divers calendriers. Terre, Météorologie, Réfraction, Magnétisme terrestre. Astronomie (coordonnées astronomiques, temps, fuseaux horaires), Soleil, Lune, Grosses planètes, Comètes, Étoiles. Poids et mesures. Statistiques géographiques et démographiques. Supplément pour 1936. Cinq notices. Carte magnétique de la France. Cartes célestes.

**Comité Météorologique International** - Procès-Verbaux des séances de De Bilt, 4-7 Octobre 1933

[*Acta scripta consessuum in* De Bilt *habitorum a die 4 ad 7 mensis Octobris A. 1933*]. Publ. Sécr. Com. Météor. Intern., XVII, 133 pp. Kemink en Zoon. Utrecht. (1934). **a - 599**

Compte rendu des travaux des cinq sessions du Comité Météorologique International. A l'exception des rapports de la Commission Internationale pour la IIème Année Polaire Internationale 1932–33 et de la Commission du Magnétisme Terrestre et de l'Electricité Atmosphérique, toutes les communications présentées ont eu un caractère purement météorologique. Au cours des séances 17 résolutions ont été votées, dont le texte est publié dans les procès-verbaux.

**Conseil Permanent International pour l'Exploration de la Mer** - Séance du Comité Atlantique [*Consessus habitus a Commissione pro Oceano Atlantico*]. Rapp. & Pr.-V. Réun. XCIII, Rapp. Atlant. 1933, 32. Copenhague (1935). **a - 600**

I. Compte rendu de la séance. II. Résolutions adoptées.

**Department of Commerce. Division of Publications** - List of Publications [*Elenchus publicationum*]. ii-xii, 1-144. U. S. Govmt. Print. Off. Washington (1934). **a - 601**

Pamphlet containing a complete list of the publications of the U. S. Department of Commerce either for free distribution by the department or by purchase from the Superintendent of Documents revised and corrected to date of issue. Between the publications are listed also those of the U. S. Coast and Geodetic Survey, of the Bureau of Fisheries, Bureau of Lighthouses, Bureau of Navigation and Steamboat Inspection, and the U. S. Shipping Board Bureau.

**Fédération des Sociétés Françaises de Sciences Naturelles** - Bibliographie des Sciences Géologiques [*Bibliographia scientiarum Geologicarum*]. 356 pp., III, 1932. Paris (1933). **a - 602**

**International Hydrographic Bureau - Bureau Hydrographique International** - Year-Book, Annuaire [*Annuarium*]. (In Engl. & French). 85 pp. Monaco (Princ.) (1935). **a - 603**

États membres du Bureau. Comité de Direction. Services Hydrologiques des différents États cités dans l'« Annuaire ».

**Ministero delle Corporazioni. R. Ufficio Geologico** - Bibliografia geologica italiana per gli anni 1915-1933. N. 1. Lettera *A* [*Bibliographia geologica italica ab A. 1915 ad A. 1933. Littera A*]. (Suppl. al n. 10 del v. LIX del « Boll. R. Uff. Geol. d'It. »), 72 pp., Tipogr. Cuggiani, Ist. Poligr. dello Stato - Libreria. Roma (1934). **a - 604**

**National Academy of Sciences** - Report of the.... Fiscal Year 1932-33 [*Relatio Academiae nationalis scientiarum pro anno fiscali 1932-33*] ii-vii + 172 pp., U. S. Govmt. Print. Off. Washington D. C. (1934). **a - 605**

Letter of transmittal. Act of incorporation. Review of the year 1932-33. Meeting of the National Academy of Sciences: Autumn meeting 1932, Annual meeting, 1933. Report of the National Research Council. Appendices.

**National Research Council of Japan** - Report n. 1, March 1922 [*Relatio, n. 1 mense Martio A. 1922*]. Nat. Res. Counc. Jap., Rep., 1, 1-20. Tokyo (1930). **a - 606**

Foreword: Resuming of the publication of the « Proceedings » n° 1 of the National Research Council of Japan, issued in March 1922, with nothing to follow, owing to the destruction of the manuscripts for n° 2, in the great earthquake and fire of September 1, 1923. I: Historical sketch of the National Research Council. II: The constitution and by-laws of the National Research Council. III: Work of the National Research Council: Publication, Collection of Scientific and Technical literature, Scientific investigation of the Pacific, Other items, Meetings. IV: Officers and members of the National Research Council. V: Standing and National Committees.

**National Research Council of Japan** - Report n. 2-3, April 1922. March 1924 [*Relatio cuius numeri 2-3 inscribuntur, a mense Aprili 1922 ad mensem Martium 1924*]. Nat. Res. Counc. Jap., Rep. 2-3, 21-64. Tokyo (1930). **a - 607**

I: Work of the National Research Council of Japan. II: International scientific meetings and the National Research Council of Japan. III: Officers, Members, Committees. Appendix: Obituary notes of deceased members.

**National Research Council of Japan** - Report n. 4-5, April, 1924, March 1926 [*Relatio cuius numeri 4-5 inscribuntur, a mense Aprili 1924 ad mensem Martium 1926*]. Nat. Res. Counc. Jap., Rep. 4-5, 65-118. Tokyo (1930). **a - 608**

Serial publications of the Council. Meetings. Organization of the Japanese Association for the Advancement of Science. International Scientific Meetings and the National Research Council. Preparation for the Third Pan-Pacific Science Congress. Officers, Members, Committees Appendix: Obituary notes of deceased members.

**National Research Council of Japan** - Report n. 6-7, April 1926. March 1928 [*Relatio cuius numeri 6-7 inscribuntur, a mense Aprili 1926 ad mensem Martium 1928*]. Nat. Res. Counc. Jap., Rep. 6-7, 119-228. Tokyo (1930). **a - 609**

Serial publications. Other publications. Meetings. Organization of a Committee on Dye-Stuff Research. International Scientific Meetings and the National Research Council of Japan. Revision of the Statutes of the International Union of Pure and Applied Chemistry and the National Research Council of Japan. Third Pan-Pacific Science Congress. Officers, Members, Committees.

**Royal Meteorological Society** - Bibliography of Meteorological Literature [*Bibliographia rerum meteorologicarum*]. III, 6, 202-244. London (1935). **a - 610**

List prepared from the meteorological literature received by the R. Meteorological Society from July to December 1934, by the Society with the collaboration of the Meteorological Office.

**Royal Meteorological Society** - Report of the Council for the Year 1934 [*Consilii relatio pro A. 1934*]. 2 append. Quart. Journ. R. Meteor. Soc., LXI, 259, 195-209. London (1935). **a - 611**

Report on the publications, the meetings, lectures and panel of lecturers, the British Rainfall Organization Fund, the finance, the Office Staff, the library, the fellows of the Society.

**Science Advisory Board** - Report of July 31, 1933 and May 28, 1934 [*Relatio die 31 mensis Julii 1933 et die 28 mensis Maii 1934*]. 303 pp., Nat. Res. Counc. Washington D. C. (1934). **a - 612**

Establishment of the Science Advisory Board on July, 1933 through the action of President Roosevelt. Members of the Board. Activities of the Board: *A*. Agriculture, *B*. Bureau of the Budget. *C*. Commerce. *D*. Department of the Interior. *E*. Joint Agencies. *F*. Navy Department. *G*. War Department. H. Specia Bureaus and Agencies. Appendices.

**Secretary of Commerce** - Coast and Geodetic Survey [*Institutum nomine* Coast and Geodetic Survey]. 7 tables. Ann. Rep. Secr. Comm., 1934 (Repr.) 119-139. U. S. Govmt. Print. Off. Washington D. C. (1934). **a - 613**

Review of the year, 1934: the public works program, civil works project, summary of activities, development of methods and instruments, Division of Charts, Division of Hydrography and Topography, Division of Geodesy, Division of Tides and Currents, Division of Terrestrial Magnetism and Seismology.

**Société Géographique de l'État** - Travaux du 1$^{er}$ Congrès Géographique Panunionique, Léningrad, 11-18 avril 1933. Fasc. 1. Résolutions [*De operibus peractis perdurante I° Conventu Geographico Panunionico, Leningradi habito a die 11 ad 18 mensis Aprilis A. 1933. Fasciculus II$^{us}$ Sententiae sumptae*]. (En russe). 56 pp., Ed. Soc. Géogr. Etat. Léningrad (1934). **a - 614**

Résolutions adoptées et votées par le Congrès. Les résolutions intéressant l'océanographie: Résolution sur le rapport de R. L. Samoilovitsch (pp. 7-8), id. sur le rapport de M. A. Loris-Mélikov (p. 39) et id. sur les travaux de la Section Arctique du Congrès (pp. 48-51).

**Vereeniging Nederlandsch Historisch Scheepvaart Museum te Amsterdam** - Jaarverslag 1933 en 1934 [*Relatio annua 1933 et 1934*]. Amsterdam (1935). **a - 615**

Rapport administratif. Fondateurs, membres, acquisitions.

**Woods Hole Oceanographic Institution** - Annual Announcement, Fifth Year, 1935-1936 [*Ratio annua. Agitur de operum ratione pro anno V°, idest 1935-36*]. 12 pp. Woods Hole., Mass. (1935). **a - 616**

Trustees & Officers of the Institution. General information. Buildings. Salt Water supply. Library. Equipment. Staff. Facilities for publication. Program.

**J. W. N.** - Cape Geographical Society [*De Societate geographica in civitate quae nomen habet a Promunturio Bonae Spei*]. South Afric. Geogr. Journ., XVII, Dec., 36-37. Johannesburg (1934). **a - 617**

Brief account of the activity of the Society during 1934.

**K. S. S., C. B. F. & E. G. R. T.** - The Geographical Congress at Warszawa [*Conventus geographicus Varsoviae habitus*]. Geogr. Journ., LXXXIV, 5, 424-429. London (1934). **a - 618**

Continued from the « Journal » for October 1934 (vol. LXXXIV, 4). Account of the work of the Congress, followed by some critics and general considerations pertaining to the study of the geographical phenomena and geographical problems.

**V. E.** - Organisation de la Société Antarctique Américaine [*Ratio et constitutio Societatis Antarcticae Americanae*]. (En russe). Bull. Arct. Inst., 1/2, 25. Leningrad (1935). **a - 619**

Information concernant la fondation à la fin du mois de novembre 1934 de la Société Antarctique Américaine qui travaillera en étroit contact avec le « Club Antarctique » de Londres et la Société Antarctique Néozélandaise.

**An.** - The Scott Polar Research Institute in Cambridge [*De Instituto nomine* Scott *pro inquisitionibus polaribus, Cantabrigiae*]. (En russe). Bull. Arct. Inst., 11/12, 418-419. Leningrad (1934). **a - 620**

Activity, publications and scope of the Scott Institute.

**An.** - The Geographical Congress at Warszawa [*Conventus geographicus, Varsoviae habitus*]. Geogr. Journ., LXXXIV, 4, 341-348. London (1934). **a - 621**

Brief account on a general Assembly of the International Geographical Union and an International Congress of Geography held under the auspices of the former at Warszawa from August 22-31 under the presidency of Dr. Isaiah Bowman.

**An.** - The Fourteenth International Geographical Congress. Warsaw, 1934 [*Agitur de XIV° conventu geographico omnium gentium, Varsoviae habito, A. 1934*]. Geogr. Rev., XXV, 1, 142-148. New York (1935). **a - 622**

Account of the Section meetings, the special papers, the exhibition, the excursions and plans for the next Congress.

**An.** - The Scott Polar Research Institute [*De Instituto, nomine* Scott, *pro inquisitionibus polaribus*]. Nature, CXXXIV, 3395, 818. London (1934). **a - 623**

**An.** - Center for Polar Research at Cambridge, England [*Statio centralis pro inquisitionibus polaribus Cantabrigiae constituta, in Anglia*]. Science, LXXX, 2082, 472. New York (1934). **a - 624**

This new center was opened at Cambridge on November 16 by Stanley Baldwin, Lord President of the Council, in the presence of many veteran Arctic explorers. Brief description of the ceremony.

**An.** - The Annual Meeting of the Smithsonian Institution [*Consessus annuus Institutionis Smithsonianae*]. Science, LXXXI, 2093, 147-148. New York (1935). **a - 625**

Account of the meeting which took place on January 17, 1935 with especial regard to the report by Dr. Charles Abbot, Secretary of the Smithsonian Institution, dealing with the activity and work of the Institution during 1934.

**An.** - The New York University Weather Station [*Statio meteorologica ad Universitatem pertinens in* New York]. Science, LXXXI, 2095, 192. New York (1935). **a - 626**

Brief account of the foundation, equipment and work of a weather station established by the New York University College of Engineering.

**An.** - Anniversary of the Blue Hill Observatory [*Agitur de die anniversario observatorii in* Blue Hill *constituti*]. Science, LXXXI, 2098, 265-266. New York (1935). **a - 627**

Brief account of the celebration of the fiftieth anniversary of the first regular observation made at the Blue Hill Meteorological Observatory, Harvard University, U. S. A.

## Expeditiones oceanographiae et scientiae causa susceptae - Studia et quaesita oceanographica.

**Ahlmann W. son Hans** - Scientific Results of the Norwegian-Swedish Spitsbergen Expedition in 1934. Introduction. General Outline of the Expedition [*Resultatus ex navigatione a Suetiis Norvegisque peracta ad* Spitsbergen *A. 1934. Introductio. Brevia circa navigationem*]. 9 figs., 1 map., Geogr. Ann., XVII, 1-2, 22-28. Stockholm (1935). **a - 628**

**Antonov L.** - La navigation du brise–glace « Krassin » vers la Novaja Zemlja en hiver 1933 [*De navigatione navis glaciei ruptricis* « Krassin » *ad* Novaja Zemlja, *hieme 1933*]. 4 fig., Ghidrogr. i Korablev., 1, 16-23. Leningrad (1934). **a - 629**

**Arctovski Henryk** - L'exploration des régions polaires par coopération internationale [*De exploratis regionibus ad polos proximis, consociata opera omnium gentium*]. La Météorologie, VIII, janv.-mars, 42-69. Paris (1934). **a - 630**

**Auer Vaino** - Results of the Finnish Expedition to Tierra del Fuego in 1928–1929, led by. . . [*Resultatus navigationis Finlandicae ad regionem* Tierra del Fuego *A. 1928-29, duce* Auer Vaino]. Num. figs., charts & pls., 313 pp. Helsinki (1934). **a - 631**

**Bartels J.** - Arthur Schuster's Work on Periodicities [*De operibus ab Arthuro* Schuster *peractis circa periodicitates*]. Terr. Magn. XXXIX, 4, 345-346. Baltimore (1934). **a - 632**

Brief account and list of Schuster's classical papers, dealing with his discovery of the necessity to apply essentially statistical methods based on the theory of probability for research on periodicities.

**Bauer H. A.** - Recent Oceanographic Work in the Russian Arctic [*De recentioribus operibus oceanographicis in regione Arctica ad Russiam pertinente*]. 1 map, Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 209-211. Washington D. C. (1934). **a - 633**

In giving information of the work performed in the Russian Arctic by several Russian expeditions, the A. makes distinction between those sent out for purely oceanographic work and those whose oceanographic program was coordinated with and often subordinated to the aims of an economic or trade expedition. The purely oceanographic expeditions have pursued a well-planned survey over definite sections of the polar shelf, especially within the more accessible part of the Russian polar seas. The paper has been compilated on hand of material issued in several Russian publications.

**Beaglehole J. C.** - The Exploration of the Pacific [*De explorato oceano Pacifico*]. 4 maps, 411 pp., A. & C. Black. London (1934). **a - 634**

Summary of all the exploration made in the Pacific in order to discover the « Terra Australis Incognita ». On the charts are shown the routes covered by the first explorers. Bibliography.

**Bigelov Henry B.** - Woods Hole Oceanographic Institution [*Institutum Oceanographicum cuius nomen* Woods Hole Oceanogr. Instit.]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 228-229. Washington D. C. (1934). **a - 635**

Brief account of the cruises of the « Atlantis » during the year 1933. List of publications on the laboratory investigations for the Woods Hole Oceanographic Institution.

**Bogdanov D. A.** - Expedition to Southern Taimyr in 1933 [*De expeditione ad regionem* Taimyr *meridionalem, A. 1933*] (In Russ. & Engl.). Bull. Arct. Inst., 2, 62-64, 100-102. Leningrad (1934). **a - 636**

Account of an expedition sent out in order to complete the previous work performed which has solved the problem of an open passage from the sea into the Pjassina River, and to investigate the possibility of navigation on the river. As a result of hydrographic observations carried out, it was shown that Pjassina River, Lake Pjassina included, is navigable along her entire length, i. e. that the Avam-Khatanga Tundra Region should be reachable by means of water-way.

**Cannegieter H. G.** - Die Niederländische aerologische Station auf Island während des Internationalen Polarjahres [*De statione aërologica hollandica in Islandia operibus perdurantibus pro anno polari internationali*]. Polarforsch., 1, 3-5. Kiel (1934). **a - 637**

**Charcot J.–B.** - Rapport préliminaire sur la campagne du « Pourquoi–Pas ? » en 1933 [*Relatio prior de navigatione navis* « Pourquoi–Pas ? », *A. 1933*]. Fig., cart. et tabl., Ann. Hydrogr., XIII, Ser. III, 1-85. Paris (1934). **a - 638**

Voir mêmes Ann. 1931-1932 et 1933 sur l'argument. Travaux du « Pollux » et du « Pourquoi-Pas ? » sur la côte Groenlandaise, à Scoresby-Sund et pendant le voyage. Traversée des glaces par le « Pollux » et séjour du bâtiment à Rosenvinge. Rapport sur la navigation par A. Chatton commandant le « Pourquoi-Pas ? ». Mesures de salinité par R. Chevallier et J. Devaux. Prélèvements de sables magnétiques par R. Chevallier. Observations d'histoire naturelle par M. Parat et P. Deach. Observations dans le Hurry Inlet par C. Bertram, D. Lack et B. Roberts. Études physicochimiques sur les eaux de la Manche et de la Seine Maritime par P. Chauchard.

**Charcot J.-B.** - La mission du « Pourquoi-Pas ? » en 1934 [*De missione navis* « Pourquoi-Pas ? », *A. 1934*]. Géographie, Terre, Air, Mer., LXII, 3/4, 175-180. Paris (1934). **a - 639**

Rapport adressé au Ministère de la Marine sur la mission du « Pourquoi-Pas ? » dans les eaux arctiques; le trajet couvert; les conditions météorologiques défavorables; l'état des glaces sur la route du « Pourquoi-Pas ? »; la mission a atteint les deux buts principaux qui lui ont été assignés: récupération du matériel de l'Année Polaire et installation de la nouvelle mission française à Angmagssalik; elle a pu faire aussi d'intéréssantes observations scientifiques.

**Chavanier M. C.** - Mission hydrographique Algérie, Tunisie, Maroc 1933. Levi da Fedhala, du 21 Juin au 10 Août 1933 [*De missione hydrographica in Algariam, Mauretaniam, Regionem Tunetanam.* Levi da Fedhala *a die 21 mensis Junii ad diem 10 mensis Septembris A. 1933*]. 3 cartes h. t. 14 pp., Impr. Nat., Extr. « Ann. Hydrogr. ». Paris (1934). **a - 640**

**Chevelev M. I.** - L'expédition de la Mer de Kara en 1932 [*De navigatione ad mare* Kara *nomine A. 1932*] (En russe). 1 fig., Vodn. Trasp., 2/3, 34-35. Moskva-Leningrad (1933). **a - 641**

**Chokaljskij J.** - Deux nouvelles expéditions antarctiques américaines [*Navigationes duae recentiores ad regiones antarcticas ab Americanis peractae*] (En russe). Izv. Gos. Gheogr. Obstch., LXVI, 2, 334-335. Leningrad (1935). **a - 642**

**De Buen Rafael** - Régime hydrographique dans la mer d'Espagne et le long des côtes portugaises (Croisières du navire « Xauen ») [*Regimen hydrographicum quoad mare Hispanicum et secundum litora Lusitana. Navigatio, navi* « Xauen » *peracta*]. 3 fig. Rapp. & Pr.-Verb. Cons. Int. Expl. Mer., XCIII, Rapp. Atlant. 1933, 22-24. Copenhague (1935). **a - 643**

Compte rendu des stations hydrographiques exécutées en Juillet 1933. Résultats des observations sur les salinités et les températures, les salinités et densités *in situ*, la distribution horizontale de la salinité, faites au cours des croisières du « Xauen » en Juillet 1933.

**De Buen Rafael** - Hydrographie du Détroit de Gibraltar en Mars 1933 (Croisières du navire « Xauen ») [*Fretum Gaditanum. Quaestio de hydrographia, mense Martio A. 1933* (*Navigatio scientiae causa, navi* « Xauen » *peracta*)]. 4 fig. Rapp. & Pr.-Verb. Cons. Int. Expl. Mer, XCIII, Rapp. Atlant. 1933, 25-29. Copenhague (1935). **a - 644**

Compte rendu des résultats des travaux faits pendant une croisière du « Xauen » dans la région du Détroit de Gibraltar, comprenant 8 stations et 59 opérations, dans deux alignements (Cadix-Arcila et Cap Spartel-Cap Trafalgar). Résumé des connaissances acquises, en ce qui concerne: 1° le régime des courants de surface dans la mer d'Alboran, 2° l'existence d'ondes de marée profondes dans la zone inférieure du détroit, 3° la transformation du courant inférieur en courant incliné vers la surface, par l'influence du relief du fond du Détroit de Gibraltar. Impossibilité d'établir une théorie générale satisfaisante sur la façon dont se réalise l'échange des eaux océaniques et méditerranéennes dans le Détroit.

**Dilwyn John D.** - La deuxième mission antarctique du R. R. S. « Discovery II » [*De altera missione ad regiones antarcticas, navi* « Discovery II » *peracta*]. 1 carte, Rev. Hydrogr., XI, 2, 81-85. Monaco (1934).

(—) See also: Geogr. Journ. LXXXIII, 5, 381–398. London (1934). **a - 645**

Extrait d'une Mémoire présentée à la Réunion de la Royal Geographical Society de Londres le 5 Mars 1934 par l'auteur. Historique du voyage et des travaux.

**Dobronravov S. K.** - Expédition sur le navire hydrographique « Taymyr » en 1934 [*De navigatione navis hydrographicae nomine* « Taymyr » *A. 1934*] (En russe). Bull. Arct. Inst., 10, 358-359. Leningrad (1934). **a - 646**

Bref compte rendu de l'expédition partie le 14 août 1934 d'Arkhangelsk et rentrée le 14 septembre de la même année pour remplacer le personnel hivernant dans la Baie Tikhaia sur l'Ile Hooker. Résultats des observations sur les glaces le long de la route, et des trois sections hydrographiques accomplies au cours de l'expédition; liste des observations et des analyses faites pendant l'expédition.

**Dzerdzeevskij B.** - L'expédition de Kara et quelques problèmes de ses recherches [*De navigatione ad mare* Kara *nomine deque connexis problematis quoad investigationes peragendas*] (En russe). Vestn. Edinoj Ghidromet. Sluzhby, 2/3 20-23. Leningrad (1933). **a - 647**

La navigation du brise-glace « Lütke » en 1932.

**Ermolaev M.** - Travaux scientifiques de l'Institut Arctique de l'URSS sur la Novaja Zemlja [*De scientiae operibus ab Instituto Arctico Sovietico peractis in* Novaja Zemlja] (En russe). 2 fig., Vestn. Znan., 4, 21–221. Leningrad (1934). **a - 648**

Bref compte rendu des travaux faits à la Station de la Deuxième Année Polaire Internationale 1932-33 dans la Rousskaja Gavanj (Port Russe) sur la Novaja Zemlja.

**Evghenov N.** - Administration Hydrographique de l'Administration Centrale de la Voie Maritime du Nord (GUGUSMP) [*Agitur de administratione hydrographica quae pertinet ad Centralem Administrationem Cursus maritimi nordici*] (En russe). Zap. Ghidrogr., 6, 107. Leningrad (1933). **a - 649**

**Evghenov N.** - Expedition of the Ice-Breaker « Krassin » in 1934 into the North-Eastern Part of Soviet Arctic [*De navigatione navi glacieiruptrici nomine* « Krassin » *A. 1934 peracta in regionem arcticam Sovieticam nord-occidentalem*] (In Russ. & Engl.). Bull. Arct. Inst., 1/2, 6-11, 45-48. Leningrad (1935). **a - 650**

Description of the voyage of the ice-breaker « Krassin » sent from Leningrad to Bering Strait in order to assist the rescue of the stranded crew of the « Cheljuskin »; arrival to Uelen and to Nome in Alaska; visit to Petropavlovsk in Kamtchatka and to Providence Bay; results of air-reconnaissance made to ascertain the ice-conditions in the region between Herald Island and Wrangel Island; airplane investigation of the portion of the sea west of Wrangel Island; hydrological section from Cape Blossom to Cape Billings; study of the penetration of the warm current from the Chukchee Sea into the eastern part of the East-Siberian Sea; ice-conditions of the latter; other air-reconnaissance and return of the ice-breaker to Rogers Bay; brief summary of the hydrological work accomplished during the voyage which covers 2600 miles.

**Fester G.** - Argentinische Expedition nach der Staaten-Insel [*Navigatio a Republica Argentina peracta ad insulas Statuum*]. Peterm. Mitt., LXXX, 10, 300. Gotha (1934). **a - 651**

Kurzer Bericht über die Arbeit der Vermessungsschiffe der argentinischen Marine „San Juan" und „San Luis" im Januar bis März 1934 an der nördlichen Küste der Staaten- Insel. (S. auch Rev. Geogr. Americana, S. 617, 1934).

**Fleming W. L. S., Brough J., Robertson R. H. S. & Gatty O.** - The Oxford University Expedition to Spitsbergen, 1933. Appendix I: Geology, Geomorphology, and Glaciology [*De navigatione ad* Spitsbergen *ab Universitate Oxoniensi peracta. Appendix I*ª: *Geologia, Geomorphologia, Glaceologia*]. Geogr. Journ., LXXXIV, 2, 116-121. London (1934). **a - 652**

A. New Friesland (W. L. S. Fleming, in collaboration with J. M. Edmonds). B. Dickson Land (J. Brough and R. H. S. Robertson). C. The Sassen Valley (J. Brough and R. H. S. Robertson). D. Geomorphology: Surface Markings (W. L. S. Fleming in collaboration with O. Gatty). Preliminary statement of the scientific work accomplished by the various parties of the expedition.

**Fraser McLean C.** - Oceanography in British Columbia in 1933 [*De oceanographia in Columbia Britannica, A. 1933*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 217-218. Washington D. C. (1934). **a - 653**

Brief summary of the work on oceanography in British Columbia of which most part was centered in the first half of the year around the program of the Fifth Pacific Science Congress. Completion of the investigation of fiords and initiation of a closer cooperation between the work of the Hydrographic Survey and the Biological Board of Canada. Construction of a new well-equipped survey-vessel the « Wm. J. Stewart », for work in the coastal waters of British Columbia. The major biological problems dealt with. The activity of Fisheries Experiment Station, Prince Rupert, B. C.

**Gardiner Stanley** - L'expédition John Murray dans l'Océan Indien [*De expeditione* John Murray *in Oceanum Indicum*]. 2 fig., Bull. Soc. Océanogr. France, 82, 1434-1438. Paris (1935).

(—) Extract in: Int. Hydrogr. Bull. VI, 103–106. Monaco, Princ. (1934). **a - 654**

L'origine de l'expédition John Murray spécialement organisée pour l'étude du fond et des conditions de subsurface de l'Océan Indien. Rapide comparaison entre l'organisation de l'expédition du « Challenger » (1872-76) et celle du « Mabahiss » armé en Alexandrie le 1 septembre 1933. Personnel de l'expédition. 1ère traversée de la mer Rouge vers Aden, et résultats des sondages effectués, ainsi que de l'étude de la circulation dans les couches d'eau

de cette mer. Troisième croisière d'Aden à Karachi autour du Golfe d'Oman, terminée à Bombay; tracé du trajet du courant de profondeur du détroit de Socotra et étude de plusieurs endroits de la côte d'Arabie, zone azoïque s'étendant à la totalité du golfe d'Oman. Résultats des deux traversées de Bombay à Mombasa et de Zanzibar à Colombo par les Seychelles, avec une croisière spéciale pour la prise d'animaux marins dans la région de Zanzibar. Exploration du fond de la mer au cours de ces croisières et d'une troisième, allant des Maldives à Socotra. Résultat d'un voyage spécial, pour étudier le plateau de Maldives.

**Georgi Johannes**, transl. by **Luon F. H.** (Rev. & Suppl. by Auth.) - Mid-Ice: the Story of the Wegener Expedition to Greenland [*Inter glacies. Historia navigationis a* Wegener *susceptae in Groenlandiam*]. 24 pls., xiv-247 pp., Kegan P. & Co., Ltd. London (1934). **a - 655**

**Gherardi W. R.** - The Oceanographic Activities of the Hydrographic Office and the United States Navy During April 1933 to April 1934 [*De activitate oceanographica Officii Hydrographici et Classis ad Americae Status Foederatos pertinentium, mense Aprili A. 1934*]. 8 figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 188-200. Washington (1934). **a - 656**

Brief summary of the oceanographic activities of the Hydrographic Office and the United States Navy during the year, April 1933 to April 1934, which were more varied and related to areas more widely separated than during recent former years: United States naval survey. Charts from U. S. Naval surveys. Sonic soundings obtained by U. S. Naval vessels. List of oceanic depths. Chart of unsounded areas of the North Pacific Ocean. Bathymetrical chart of the Caribbean Sea. Current-charts. Temperature-charts. Mechanical extraction of oceanic data. Dynamic oceanographic surveys. Navigator's Sailing Directions or Pilots. Gravity-reports. Magnetic charts.

**Ghernet E. S.** - Expedition of the « Sadko » in 1934 [*De navigatione in navi* « Sadko » *A. 1934*]. (In Russ. & Engl.). Bull. Arct. Inst., 1/2, 11-13, 48-50. Leningrad (1934). **a - 657**

Brief account of the floating of the ice-breaker « Sadko » which sank at a depth of 22m. near Kandalakscha in 1916. Description of her first voyage started after repair was made, on July 22, 1934 with the scope of establishing a polar station on Cape Olovianny (Severnaja Zemlja ) or on Lonely Island, as well as to take the wintering party on Serghej Kamenev Islands. Ice-conditions on the route of the « Sadko »; scientific material collected during the drift of the « Sadko », which is of especial value inasmuch as it was collected in a region, which, owing to the extreme difficulty of access, had not yet been explored, i. e. the central part of the Kara Sea.

**Glen A. R.** - The Oxford University Expedition to Spitsbergen, 1933 [*De navigatione ad* Spitzbergen *ab Universitate Oxoniensi peracta A. 1933*]. 1 map., 4 tables, 12 photos. Geogr. Journ., LXXXIV, 2, 104-135. London (1934). **a - 658**

Paper read at the Evening Meeting of the R. Geographical Society on 19 February 1934, containing a general account of the main work of the expedition sent out by the Oxford University Exploration Club in order to renew its Arctic work in 1933 and chiefly concerned with the exploration of the New Friesland ice-cap in the north-east of the main island of West Spitsbergen and the western coastal belt of the same region from Mossel Bay to the beginning of the Stubendorf Mountains, as well as the coast line of the Widje Bay and of the Ice Fjord. The paper is followed by 6 appendices which form a preliminary statement of the scientific work done by the expedition, and by a report of the discussion, which followed the lecture of the paper.

**Glen A. R. & Keith D. B.** - The Oxford University Arctic Expedition, 1935-36 [*De navigatione ad regiones arcticas ab Universitate Oxoniensi peracta A. 1935-36*]. 3 figs., Nature, CXXV, 3416, 604-606. London (1935). **a - 659**

Brief account of the program of the new Oxford University Arctic Expedition, the plans of which are to carry out a topographical and geological survey of the unknown north and east coasts of Greenland, and of as many of the northern and eastern islands as time and ice conditions permit. In addition to the surveys, researches on the ionosphere, atmospheric ozone, electrical disturbances, and terrestrial magnetism will be carried on at the base of the expedition at Rijp's Bay over the whole year, and two winter stations are to be maintained on the inland ice, and finally a fairly comprehensive biological program is planned, which will mainly consist of a study of the birds, correlated with the conditions of marine fauna on which they feed.

**Habert M.** - Rapport préliminaire sur les travaux de la mission française de l'année polaire 1932-1933 au Scoresby-Sund [*Relatio prior de operibus peractis a missione Gallica, A. 1932-1933, ad* Scoresby-Sund]. 1 tabl. h. t., Ann. Hydrogr., XIII, Ser. III, 153-179. Paris (1934). **a - 660**

Magnétisme. Courants telluriques. Aurores polaires. Electricité atmosphérique. Radioélectricité. Météorologie. Hydrographie. Géologie. Biologie. Moyens techniques.

**Hamlet H. G.** - Investigations Conducted by the United States Coast Guard During 1933 [*De investigationibus scientiae causa peractis navibus litorum praesidiariis ad Americae Status Foederatos pertinentibus, A. 1933*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 231. Washington D. C. (1934). **a - 661**

Brief account of the Coast Guard's activities, of which additional details can be found in the paper prepared by R. M. Hoyle under the title « The Oceanographic Work of the International Ice Patrol and Ice Observation Service Carried on by the Coast Guard in 1933 », published in the same volume of « Transactions », pp. 200–202.

**Hebecker O.** - Kursstabilität. Neue Versuche auf Schiffen [*Quaestio de stabilitate cursus maritimi. Experientiae novae*]. 1 Taf., 1 Tab., Seewart, III, 6, 249-255. Deutsche Seewarte. Hamburg (1934). **a - 662**

Einzelne Versuche an wirklichen Schiffen, die zum Zweck der Messung der Kursstabilität unternommen worden sind. Da ein abschliessendes Urteil naturgemäss erst dann abgegeben werden kann, wenn sehr viele Einzelbeobachtungen vorliegen, ist einer der Zwecke des Vf. alle Schiffsführer zu solchen Beobachtungen anzuregen und Material herbeizuschaffen. Als « Kursstabilität » betrachtet Vf. eine Eigenschaft des fahrenden Schiffes, die man im Gegensatz zur sogenannten « Wendigkeit » des Schiffes stellen muss.

**Joly de R.** - Aux Iles Fortunées [*Ad Insulas Fortunatas*]. 8 fig., Géogr. Terre, Air, Mer, LXII, 3/4, 161-174. Paris (1934). **a - 663**

Résumé des résultats d'une expédition entreprise dans le but de faire l'exploration de la « Sima de Ginamar », un goufre naturel de la Grande Canarie, au fond de laquelle un essai d'écoute de radiophonie a été tenté, et de recueillir de nombreux échantillons géologiques des Canaries les moins fréquentées: Hierro et Gomera.

**Kanitscheider Rudolf** - Die Oesterreichische Polarexpedition 1932-1933 [*De navigatione Austriaca ad polum, A. 1932-33*]. Forsch. u. Fortschr., 14, 186-187. Berlin (1934). **a - 664**

Expedition des Zweiten Internationalen Polarjahres nach Jan–Mayen.

**Koch Nandor** - Az északisarki « Nautilus » expedicio tudomanyos eredményei [*Resultatus scientifici navigationis ad regiones arcticas, navi « Nautilus » peractae*]. (En hongrois). A Tenger, XX, 1/4, 39-42. Budapest (1935). **a - 665**

**Leighly John** - Scientific Exploration in Northeast Land: A. Review [*De exploratione scientiae causa in Terra Nord-Occidentali. Recensio*]. Geogr., Rev., XXV, 2, 313-316. New York (1935). **a - 666**

An account on hand of the review of the publications « Scientific Results of the Swedish–Norvegian Arctic Expedition in the Summer of 1931, led by Hans W: son Ahlmann (Introduction and Parts I–X), « Geogr. Ann. » XV, 1933, pp. 1–68, 73–216 and 261–348, as well as of a previous account « Den svensk–norska expeditionen till Nordostlandet och farvattnen sommaren 1931 », Ymer, Vol. LII, 1932, pp. 1–31 of an expedition to a region, which includes Northeast Land, several of the smaller islands lying north of Spitsbergen and north and east of Northeast Land, and the waters between Svalbard and Franz Joseph Land.

**Loewe F.** - Wissenschaftliche Arbeiten bei der Universal Dr. Fank-Grönland Expedition [*De operibus scientificis peractis, inter navigationem in Groenlandiam, duce Doct.* Fank]. Geogr. Zeitschr., 4, 245. Leipzig (1933). **a - 667**

**Loewe F.** - Die deutsche Grönlandexpedition Alfred Wegener [*De navigatione in Groenlandiam ab* Alfred Wegener *peracta*]. 8 Abb., Sitz.-ber. Ges. Naturforsch. Freunde, II, 201-226. Berlin (1933). **a - 668**

Die eigentümliche Bildung des grönländischen Inlandeises. Schlüsse in Bezug auf den Zuwachs und die Verminderung des Schnees und des Eises. Beschreibung der Vor– und Hauptexpedition; Mitglieder der Hauptexpedition; ausgeführte Untersuchungen; wissenschaftliche Bedeutung.

**Lukens R. R.** - Oceanographic Activities of the United States Coast and Geodetic Surveys [*De operibus oceanographicis peractis ab Instituto nomine* U. S. Coast and Geodetic Surveys]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 202-204. Washington D. C. (1934). **a - 669**

Report on the oceanographic work of the Coast and Geodetic Survey which for the year 1933–34 has been confined largely to the offshore surveys on the Atlantic, Gulf, and Pacific coasts. This survey has been extended to the limit of the continental shelf or to depths of one to two thousands fathoms and all the work is controlled by radio–acoustic sound–ranging resulting in an accurate delineation of the floor of the ocean over which the surveys extend. Account of the progress of the tidal work and current observations made by the Survey. Some hints as to the program of work during the coming year.

**Luymes J. L. H.** - De John Murray Expeditie naar het N W–lijk gedeelte van den Indischen Ocean [*De navigatione* John Murray *ad regionem nord-occidentalem Oceani Indiani*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam. LI, 6, 815-896. Leiden (1934). **a - 670**

Bref compte rendu de l'expédition par S/S Mabahiss du Septembre 1933 jusqu'au Mai 1934. La route; observations; nouveaux projets.

**Luymes J. L. H.** - Het werk der Nederlandsche opnemingsvaartuigen in den oost indischen Archipel, 1930-1935 [*De operibus peractis in archipelago Indico, navibus Hollandicis ad investigationes idoneis, A. 1930-35*]. Tijdschr Kon. Ned. Aardr. Gen. Amsterdam, LII, 1, 105-107. Leiden (1935). **a - 671**

Dredge investigations have been undertaken between 1° and 4° lat. A special interest has been dedicated to the tidal movements on the basis of which current tables have been made. Necessity of better charts.

**Maler B. J.** - Travaux explosifs de l'expédition du « Sibirjakov ». [*De operibus pro explosionibus, navigatione perdurante, peractis navi* Sibirjakov]. (En russe). Vzryvn. Djelo, IX, 7, 43-57. Moskva (1934). **a - 672**

**Maurain M. Ch.** - L'Année Polaire 1932-1933. Organisation générale et travaux scientifiques [*Polorum annus 1932-33. Ratio generalis operum scientificorum*]. Ann. 1935 Bur. Long., N. 1-B. 22. Paris (1934). **a - 673**

But et objet principal de l'Année Polaire 1932–1933; importance des observations et des mesures dans les régions polaires en ce qui concerne les phénomènes magnétiques et électriques. Organisation de cette entreprise internationale. Réalisation du programme des travaux prévus dans les régions polaires arctiques, dans les régions polaires antarctiques, dans les autres régions du Globe. Participation française: Programme des travaux. Observations exécutées relatives au magnétisme terrestre: distribution générale, distribution locale, variation diurne, perturbations magnétiques, aurores polaires. Ozone atmosphérique. Electricité atmosphérique. Radioélectricité. Rayons cosmiques. Météorologie.

**Morozov S.** - L'expédition de la Léna [*Expeditio ad* Lena *flumen*]. (En russe). 4 fig., Nachi Dostizh., 2, 60-66. Leningrad (1934). **a - 674**

**Mosby Håkon** - Fra « Norvegia » –Ekspedisjonene. Noen meteorologiske og oceanografiske resultater [*De navigatione navis* « Norvegia ». *Resultatus meteorologici et oceanographici*]. Norsk Geogr. Tidsskr., V, h 6, 2, 342. Oslo (1935). **a - 675**

Introductory remarks on the division of the oceans with a special regard to the Antartic Ocean. Atmospheric conditions in the South Polar region. Hydrological conditions in the Antarctic: the different water layers, the motion of the water masses, seasonal variations of the salt conditions; the origin of the cold bottom water.

**Obroutchev S. V.** - L'expédition de Tchoukhotsk [*De navigatione ad* Tschukhotsk]. (En russe). Bull. Arct. Inst., 11/12, 410-411. Leningrad (1934). **a - 676**

Communication du chef de l'expédition concernant les travaux accomplis avec référence spéciale à l'exploration de la Baie de Tchaouna et de 60 km. du littoral polaire à l'ouest du Cap Chéljagskij, ainsi qu'à l'élaboration d'une carte topographique de 6.000 cm² à l'échelle 1 : 200.000.

**Ostrovskij B. G.** - Résultats des travaux des expéditions soviétiques dans l'extrème Nord [*De resultatibus ex operibus peractis inter navigationes a Sovietis susceptas in extremas regiones nordicas*]. (En russe). 5 fig., Sev. Kraj. Izd. 81 pp. Arkhangelsk (1933). **a - 677**

**Palmén E.** - The Thalassological Summer Cruise in 1934 [*De aestiva navigatione thalassographica, A. 1934*]. 1 map., 2 tabl. Merent. Julk. (Havsforskningsinst. Skr.), 98, 4-17. Helsinki (1935). **a - 678**

Results of the customary summer cruise for the exploration around Finland in July 1934. In two tables are reported the results of observations in the depth (temperature, salinity, density, hydrogen ion activity, oxygen content, percentage of oxygen saturation, and alcalinity for various depths at the stations investigated), and of surface observations (temperature and salinity of surface water, samples of which were taken every hour when the ship was in motion).

**Parr A. E.** - Bingham Oceanographic Foundation [*Fundatio Oceanographica,* Bingham *nomine*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 229-230. Washington D. C. (1934). **a - 679**

Brief summary of the main activity of the Foundation in the field of physical oceanography.

**Petterson Hans** - Enregistreur de courants pour grande profondeur [*Currentiarum in profundum perscriptio*]. 3 fig., Rev. Hydrogr. XI, 2, 156-160. Monaco (1934). **a - 680**

Description de cet instrument dans la forme que l'auteur lui a donné en 1914. L'article est extrait du « Quarterly Journal of the Royal Meteorological Society », vol. XLI, n° 173 Janv. 1915. Dans le même article l'auteur s'occupe de l'installation de la Station Hydrographique Sous-marine, type Gustaf Ekman.

**Probatov A.** - Résultats des travaux de l'Expédition de Kara de 1933 et perspectives de l'exploitation économique de la Mer de Kara [*De resultatibus ex operibus peractis inter navigationem ad mare* Kara *nomine, A. 1933 peractam. Agitur etiam de expectationibus quoad culturam oeconomicam Maris* Kara]. (En russe). Khoz. Sev., 3, 41-51. Arkhangheljsk (1934). **a - 681**

Compte rendu d'une partie des travaux de la Section Régionale du Nord de l'Institut Océanographique de l'État (URSS).

**Richard Jules** - Liste générale des stations des Campagnes Scientifiques du Prince Albert de Monaco avec notes et observations [*Index generalis stationum quoad navigationes scientiae causa peractas ab Alberto Principe* de Monaco, *cum notis et observationibus*]. Résult. Camp. Scient. accomplies par Albert I. Prince Souverain de Monaco, fasc. LXXXIX, 1-348. Monaco (1934). **a - 682**

Liste générale des Stations (1885–1915): numéro de Station, date, localité, profondeur en mètres, nature du fond, procédé de récolte, observations. La liste est suivie par des notes et des observations sur chaque station. Hors texte ont été publiées 3 cartes: VII. Itinéraires du yacht « Princesse Alice » dans la Méditerranée et dans l'Océan Atlantique Nord de 1900 à 1905 inclus. VIII. Itinéraires des yacht « Princesse Alice » et « Hirondelle » dans la Méditerranée, l'Océan Atlantique Nord et l'Océan Glacial Arctique de 1906 à 1912 et 1914. IX. Itinéraire du yacht « Hirondelle » dans la Méditerranée et l'Océan Atlantique Nord en 1913 et 1915.

**Riel (van) P. M.** (sous la direction de) - Wetenschappelijke uitkomsten van het onderzoek der Snellius-Expeditie uitgevoerd in het Oostelijke gedeelte van Nederlandsch Oost-Indie 1929-1930 [*Resultatus scientifici investigationum inter navigationem navis* « Snellius » *peractarum in regione nord-orientali Indiarum Orientalium Hollandicarum, ab A. 1929 ad A. 1930*]. Zahlr. Tab., Kart. u. Zeichn., Kemink en Zoon N. V. Utrecht (1935).

( — ) Résultats scientifiques de l'Expédition du « Snellius » dans les parties orientales des Indes Néerlandaises 1929-1930 (même éditeur, Utrecht). **a - 683**

Das Sammelwerk besteht aus den folgenden Teilen: I. Vorbereitung und Ausrüstung. II. Meereskunde. III. Meteorologie. IV. Chemie. V. Geologie. VI. Biologie.

**Samoilovitsch R. L.** - Ma dix-huitième expédition [*Agitur de XVIII*ª *navigatione ab Auctore peracta*]. (En russe). Photos, 2 cartes h. t., 116 pp., Edit. Inst. Arct. URSS. Léningrad (1934). **a - 684**

**Samoilovitsch R. L.** - Expedition on the Ice-Breaking Steamer « Sedov » in 1934 [*De navigationibus in navi glaciei-ruptrici nomine* « Sedov », *A. 1934*]. (In Russ. & Engl.). Bull. Arct. Inst., 10, 354-357, 390-393. Leningrad (1934). **a - 685**

Brief account of the expedition on board the ice-breaker « Sedov » organized by the Chief Administration of the Northern Sea Route under the leadership of Prof. R. L. Samoilovitsch, Director of the Arctic Institute. Staff of the expedition. Equipment of the ship. Route of the expedition. Discovery of a great depth east of the Cape Zhélaniya. Principal task of the expedition: determination of the size and the boundaries of a shoal in the northern part of the Kara Sea, against which had run in 1932 the ice-breaker « Taimyr ». Hydrological sections made in the region under consideration. Topographical survey of Wiese Island; magnetic observations; results of the hydrological observations; analysis carried out in the hydrochemical laboratory on board the ice-breaker; investigations allowing to plot a dynamical chart of the Kara Sea; results of the investigation embracing the entire biological complex of the Kara Sea, its bottom and ice conditions.

**Schmidt O.** - Scientific Results of the Expedition 1933-1934 on the S/S/ « Cheliuskin » [*Resultatus scientifici e navigatione peracta navi sovietica* « Cheljuskin », *A. 1933-34*]. (In Russ. & Engl.). Bull. Arct. Inst., 6/7, 259-261, 285-287. Leningrad (1935). **a - 686**

Summary of the results of observations carried out during the voyage and after the wreck of the ice-breaker « Cheliuskin » with especial regard to the exploration of the Chukchee Sea which represents the least investigated part of the Soviet Arctic. Information as to the cartographic, meteorological, hydrological, hydrobiological, zoological work performed; observations on the effect of the ice on the hull of the ship; elaboration of a new method for forecasting the approach of ice-jams on hand of observations of the tiniest waves passing over the ice which are invisible to the eye.

**Schmidt P.** - Conquête scientifique des mers de l'Extrême-Orient [*Agitur de cognitione scientifica ultimarum regionum orientalium*]. (En russe). 4 Fig., Vestn. Znan., 7, 414-418. Leningrad (1934). **a - 687**

Descriptions des travaux hydrologiques et hydrobiologiques conduits dans la Mer de Bering en 1932 et 1933.

**Schuchert Charles** - Lauge Koch's Explorations in East Greenland [*De explorationibus a* Lauge Koch *peractis in Groenlandia orientali*]. Amer. Journ. Sc., XXVII, 160, 307-309. New Haven, Conn. (1934). **a - 688**

Organization and equipment of the Danish East Greenland Exploration party of the summer 1933. Knowledge secured concerning the East Greenland geosyncline and the orogenic histories of the Caledonian and Variscan deformations. Some new knowledge obtained concerning the East Greenland coast from 68° to 60° N. Lat. (Cape Farewell) which is very little known. Collections of fossils gathered by the party.

**Schulz C.** - Die Russische Arktisexpedition [*De navigatione Russica in regiones arcticas*]. Geogr. Zeitschr., 1, 25-27. Leipzig (1934). **a - 689**

**Sewell Seymour R. B.** - The John Murray Expedition to the Arabian Sea [*De navigatione a Johanne* Murray *peracta in mare Arabicum*]. 3 Figs., Nature, CXXXIV, 3392, 685-688. London (1934).

( — ) See also: Geogr. Journ. LXXXIV, 2, 154-156. London (1934). **a - 690**

Brief description of some results of the Expedition. Topographical, hydrographic and biological results.

**Skogsberg Tage** - Hopkins Marine Station, Pacific Grove, California - Report on Hydrographic Work in Monterey Bay in 1933 [*Statio maritima in* Hopkins. *Relatio de operibus hydrologicis in baja* Monterey *peractis*, A. 1933]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15 th Ann. Meet., part I, 220-221. Washington D. C. (1934). **a - 691**

Brief account of the work performed, which has been the continuation of the program of 1932. Conclusions of the analysis of the condition of the Bay. Besides the discovery of the fundamental hydrographic rhythm of the region, the most important fact to be noticed is that Monterey Bay waters are but secondarily affected by local meteorological conditions.

**Slastnikov G.** - Travaux de l'équipe de la barque à moteur « Arktik » de l'expédition scientifique et commerciale à la Novaja Zemlja en 1934 [*De operibus peractis a manipulo in motoscapha* « Arktik » *navigante inter navigationem ad* Novaja Zemlja, *scientiae et commercii causa susceptam, A. 1934*]. (En russe). Bull. Arct. Inst., 11/12, 406. Leningrad (1935). **a - 692**

Bref résumé des travaux exécutés dans les différentes baies du littoral de la Novaja Zemlja en vue de leur exploration hydrologique, hydrobiologique et hydrographique.

**Spender Michael** - Alfred Wegener's Greenland Expeditions, 1929 and 1930-31 [*De navigationibus in Groenlandiam ab Alfredo* Wegener *peractis, A. 1929 et 1930-31*]. Geogr. Journ., LXXXIV, 6, 515-521. London (1934). **a - 693**

A summary containing information on the organization and scientific results of Alfred Wegener's Greenland expeditions on hand of the following publications: « Wissenschaftliche Ergebnisse der Deutschen Grönland - Expedition Alfred Wegener 1929 und 1930-1931 ». « Alfred Wegeners letzte Grönlandsfahrt », unter Mitwirkung von Dr. Fritz Loewe herausgegeben von Else Wegener, and « Im Eis vergraben », by Johannes Georgi.

**Toumm P. P.** - 46- ème trajet polaire [*Agitur de XLVI navigatione ad polum*]. (En russe). Karelo-Mourm. Kraj, 9/10, 62-63. Leningrad (1933). **a - 694**

Description du 46 - ème voyage polaire du bateau de recherches soviétique « Persej » effectué en automne 1933.

**Vaughan Wayland T.** - Oceanographic Research at the Scripps Institution of Oceanography [*Investigationes oceanographicae in* « Scripps Institution of Oceanography » ]. 1 table, Nat. Res. Counc., Trans. Amer. Geoph. Union, 15 th Ann. Meet., part. I, 222-225. Washington D. C. (1934). **a - 695**

Improvements. Expeditions and oceanographic data. Physical oceanography and marine meteorology. Chemistry. Microbiology. Phytoplankton. *Foraminifera*. Physiology of marine Invertebrates. Fish-biology. Marine bottom-deposits.

**Wiese W.** - Expedition on the Ice-Breaking Steamer « Lütke » in 1934 [*De navigatione navis glaciei-ruptricis nomine* « Lütke », *A. 1934*]. (In Russ. & Engl.). Bull. Arct. Inst., 10, 351-353, 388-390. Leningrad (1934).

( — ) See also Geogr. Rev. XXV, 2, 339-340. New York (1934). **a - 696**

Principal task of the expedition: passage in the course of one navigation-season from Vladivostok to Murmansk along the northern sea-route. Staff of the expedition. Condition of the ice during the voyage, which lasted from June 28th to September 20th, 1934. Program of the scientific work carried on during the expedition: determination of temperature and salinity of the surface layer of the sea, chemical analysis of water-samples collected, mapping of the ice, observations on elements of the waves, determination of specific gravity, salinity and air contained in the ice, soundings, meteorological observations, collection of hydrobiological material, with particular attention paid to the plankton.

**Zinger Max.** - La campagne de Léna [*De navigatione scientiae causa ad flumen* Lena]. (En russe) fig., 1 carte h. t., 86 pp., Obl. Izt., Leningrad (1934). **a - 697**

Comptes rendus de la première expédition de la Léna du brise-glace « Krassine », des navires du port d'Arkhangheljsk « Staline », « Pravda », « Volodarskij » et du vapeur d'Omsk « Pervaja Pjatiljetka » autour de la péninsule de Tajmyr jusqu'à l'embouchure du fleuve Léna et la Baie de Tixi.

**Zukriegel Jos.** - A Contribution to the Oceanography of the European Arctic Ocean. Surface Temperatures of the Water in July and August 1933 [*Contributio in Oceanographiam Oceani Arctici Europaei cognoscendam. Aquae temperatura ad superficiem, mense Julio et mense Augusto A. 1933*]. 20 pp. Journ. Czechosl. Geogr. Soc. Prague, XL, 3-6. Prague (1934). **a - 698**

**Conseil Permanent International pour l'Exploration de la Mer** - Hydrologie [*De Hydrologia*]. Tabl., Rapp. & Pr. Verb. Cons. Expl. Mer, Rapp. Atlantique 1933, XCIII, 8-18. Copenhague (1935). **a - 699**

Croisières effectuées pour des recherches océanographiques par: la République Française (Office des Pêches Maritimes, Marine Nationale), le Royaume de Grande-Bretagne (croisières du navire S/S « Salpa »), l'État Libre d'Irlande (croisières du navire « Muirchu »), la République Espagnole (croisières du navire « Xauen ») et la République Portugaise. Les résultats sont exposés dans des tableaux.

**Deutsche Seewarte** - Meereskundliche Beobachtungen auf deutschen Feuerschiffen der Nord- und Ostsee. Jahr 1933 [*De observationibus oceanographicis naviculis pharum ferentibus peractis in mari Nordico et in Baltico, A. 1933*]. 2 Kart., zahlr. Tab. iv + vii + 63 pp. Deutsche Seewarte. Hamburg (1934). **a - 700**

Ergebnisse der an Bord angestellten Beobachtungen auf deutschen Feuerschiffen in der Nord- und Ostsee über Wind, Wetter, Seegang, Strom, mit angegebenen Stromkentnerungszeiten, Temperatur und Salzgehalt im Jahre 1933.

**Deutsche Seewarte** - Mitarbeiter zur See [*Quaestio de consociatis operibus quoad mare studendum*]. 5 Tab., Seewart, IV, 1, 30-52, Deutsche Seewarte. Hamburg (1935). **a - 701**

Liste der *a*) Mitarbeiter an den meteorologischen Tagebüchern der Deutschen Seewarte, Fragebogen, Berichten, Strombeobachtungen und Funkpeiltagebüchern,

*b*) Mitarbeiter an den kleinen Wetterbüchern der Deutschen Seewarte, *c*) Mitarbeiter an den meteorologischen Tagebüchern für Fischdampfer, *d*) Mitarbeiter an den Flaschenposten und *e*) Mitarbeiter an den Höhenwindmesstellen.

**Marine Superintendent** - The Marine Observer, 1935 [*Ephemeris Anglica nomine* Marine Observer *A. 1935*]. Mar. Obs., XII, 117, 2. London (1935). **a - 702**

Summary of the aims and objects of the « Marine Observer » published by the authority of the Meteorological Committee, Air Ministry, the Marine Division in co-operation with voluntary marine observers.

**Alfa** - Expédition sur le brise-glace « Lütke ». (Conversation avec le commandant substitut de la section scientifique W. J. Wiese) [*De navigatione in navi glacieiruptrici, nomine* « Lütke »]. (En russe). Vestn. Znan., 8, 537-539. Leningrad (1934). **a - 703**

**B.** - Exploration du Groenland au cours de trois années [*De Groenlandia tres annos explorata*]. (En russe). Sov. Sever., 3, 102-103. Moskva (1934). **a - 704**

Sur la base de matériaux publiés dans la presse étrangère un bref compte rendu est donné des travaux de l'expédition danoise de 1931-1934.

**J. M. S.** - Admiral Byrd's Antarctic Expedition [*De navigatione ad regiones arcticas ab Almiragio* Byrd *peracta*]. Geogr. Journ., LXXXIV, 2, 151-153. London (1934). **a - 705**

An occasional summary of events of the Byrd's Antarctic Expedition, put together partly from the files of the « New York Times » and from those of « The Little America Times », a private and amateur monthly newspaper, which is circulated among friends and relatives of members of the expedition.

**V. E.** - Expédition anglaise à la Terre d'Ellesmer [*De Anglica navigatione ad Terram* Ellesmer]. (En russe). Bull. Arct. Inst., 8/9, 320. Leningrad (1934). **a - 706**

Programme prévu de l'expédition sous la direction de Noel Humphreys qui est parti de Londres le 17 juillet 1934 à bord du bateau « Signalhorn ».

**W. E. G.** - The British Graham Land Expedition [*De Britannica navigatione ad Terram* Graham]. Geogr. Journ., LXXXIII, 6, 512-515. London (1934). **a - 707**

Brief account of the organization, personnel and aim of the British Expedition to Graham Land, for which the means have been mainly provided by the Government and by fellows of the R. Geographical Society. Short information on the program of work of the expedition, which is concerned with a sector of the Antarctic continent claimed by England.

**An.** - Fifth University of Michigan Greenland-Expedition [*De* $V^a$ *navigatione in Groenlandiam ab Universitate regionis* Michigan *peracta*]. Bull. Amer. Meteor. Soc., XIV, 5, 147. Washington (1933). **a - 708**

Brief note containing some details of the program and aim of the expedition organized in connection with the Second International Polar Year (S. also « Science », n° Febr., p. 163, 1933).

**An.** - Ozeanographie der Hudsonbai und Hudsonstrasse [*De oceanographia in baja et freto Hudsonianis*]. Geogr. Ztschr., 1, 43-44. Leipzig (1933). **a - 709**

**An.** — Arbeiten der Dänischen Ostgrönland-Expedition [*De operibus e navigatione Danica in Groenlandiam orientalem*]. Geogr. Ztschr., 2, 106-107. Leipzig (1933). **a - 710**

**An.** - Deuxième Année Polaire Internationale [*Polorum secundus annus internationalis*]. (En russe). Mirovedenije, XXII, 5, 68-70. Leningrad (1933). **a - 711**

**An.** - Polar Stations of the USSR [*Stationes Russicae in poli regionibus*]. (In Russ. & Engl.). Bull. Arct. Inst., 5, 227-254. Leningrad (1934). **a - 712**

Some information on the activity of the polar stations at Calm Bay (Tikhaja) on Franz-Joseph Land and on Cape Cheljuskin.

**An.** - Orders Handed to the Heroes of USSR and to Members of « Cheliuskin » - Expedition [*Numismata heroicis navigatoribus Russicis navis* « Celjuskin » *assignata*]. (In Russ. & Engl.). Bull. Arct. Inst., 6/7, 255-259, 282-284. Leningrad (1934). **a - 713**

Text of the address pronounced by M. I. Kalinin, Chairman of the Central Executive Committee of USSR on July 23rd, 1934, on the occasion of the handling of orders and deeds to the people who had taken part in the ice-breaker's « Cheliuskin » rescue-expedition.

**An.** - Expedition on the Ice-Breaker « Lütke » [*De navigatione navis glaciei-ruptricis nomine* « Lütke »]. (In Russ. & Engl.). Bull. Arct. Inst., 6/7, 262-263, 293. Leningrad (1934). **a - 714**

Brief information on the expedition sent out by the Chief Administration of the Northern Sea Route with the object to effect a through-voyage from Vladivostok to Arkhangel and to study the hydrology of the Chukchee and the East-Siberian Seas.

**An.** - Second Trade Expedition to the Lena River [*De altera navigatione ad flumen* Lena *commercii causa*]. (In Russ. & Engl.). Bull. Arct. Inst., 8/9, 305, 348-349. Leningrad (1934). **a - 715**

Information on an expedition to be sent out to the Lena River for the purpose of transporting in one season about 8000 tons of goods from Murmansk to the mouth of the Lena River (4300 km.); the staff of the expedition; program of the hydrographical, hydrological and geophysical investigations to be carried out on board the ice-breaker « Yermak », with especial consideration to the ice-conditions and distribution.

**An.** - Le voyage jubilaire du navire d'expédition « Persej » [*De* $L^a$ *navigatione navis* « Persej »]. Bull. Arct. Inst., 10, 375. Leningrad (1934). **a - 716**

Courte note sur le 50 -ème voyage du navire « Persej » dans les latitudes polaires; le « Persej » a couvert au cours de ses voyages dans l'Arctique 60.000 milles environ, dont plus de 5.000 milles à travers les glaces.

**An.** - L'expédition de Kara [*De navigatione ad mare nomine* Kara]. (En russe). Bull. Arct. Inst., 11/12, 410. Leningrad (1934). **a - 717**

Bref compte rendu de l'expédition, à laquelle 31 unités ont participé, dont 28 vapeurs sous bandières étrangères. Au cours de cette expédition pour la première fois les vapeurs étrangers ont été approvisionnés par du charbon soviétique. Tous les vapeurs ont pu rentrer à Mourmansk, après leur voyage jusqu'à la Yakoutie.

**An.** - Premier voyage polaire du brise-glace « Sadko » [*De prima navigatione ad polum navis glaciei-ruptricis nomine* « Sadko »]. (En russe). Bull. Arct. Inst., 11/12, 411. Leningrad (1934).
**a - 718**

Trajet parcouru par le brise-glace; conditions des glaces; travaux exécutés.

**An.** - Retour du « Malyghine » [*Reditus navis* « Malyghin »]. (En russe). Bull. Arct. Inst., 11/12, 411. Leningrad (1934).
**a - 719**

Information du retour le 27 septembre 1934 du brise-glace « Malyghine » à Arkhangheljsk, après avoir escorté à travers les glaces les navires de l'expédition dans la Mer de Kara et avoir construit une station radio-météorologique au Cap Sterlegov dans l'embouchure de la rivière Lenivaja.

**An.** - Les voyages d'automne du bateau d'expédition « Persej » [*De navigationibus autumnalibus navis* « Persej »]. (En russe). Bull. Arct. Inst., 11/12, 411-412. Leningrad (1934).
**a - 720**

Information sur deux voyages du « Persej » entrepris dans le but d'étudier la distribution de la « biomasse » de la faune benthonique dans le Golfe de Kola et de sa transformation par suite de l'abaissement général de la Mer de Barentz, ainsi que d'établir la limite des glaces entre Novaja Semlja et Spitsbergen pendant la saison d'automne.

**An.** - Voyage polaire du navire pour l'expédition « Knipovitch » [*Navigatio ad polum navis* « Knipovitch »]. (En russe). Bull. Arct. Inst., 11/12, 412. Leningrad (1934).
**a - 721**

Bref compte rendu du voyage qui a duré 52 jours et au cours duquel 5000 milles environ ont été couverts. L'expédition a accompli des travaux hydrographiques et hydrobiologiques dans la Mer de Kara et la Mer de Pétchora.

**An.** - Three English Expeditions to Greenland [*De Anglicis tribus navigationibus in Groenlandiam*]. (In Russ.). Bull. Arct. Inst., 11/12, 421-422. Leningrad (1934).
**a - 722**

Brief account of the J. M. Wordie Expedition, the Oxford University Expedition to Ellesmer Land, and the Martin Lindsay Expedition.

**An.** - Oceanographic Cruises of the « Président Théodore-Tissier » - Croisières océanographiques du « Président Théodore-Tissier » [*Navigationes oceanographicae navi* « Président Théodore-Tissier » *peractae*]. (In Engl. & French). Int. Hydrogr. Bull., II, 32-33. Monaco, Princ. (1935).
**a - 723**

Brief summary of an article by Ed. Le Danois, published in the « Revue Scientifique », Paris, 9th March 1935, which summarises the first results of the scientific cruises of the French vessel « Président Théodore-Tissier » belonging to the Office des Pêches Maritimes to the Canary Island, the western entrance to the English Channel, the herring fishery areas in the North Sea and the Atlantic Ocean along the 45th parallel of N. lat., where complete oceanographic stations were made.

**An.** - Scott Polar Research Institute [*Institutum cui nomen est* Scott Polar Research]. (In Engl. & French). Int. Hydrogr. Bull., II, 46-48. Monaco, Princ. (1935).
**a - 724**

On hand of an article published in « The Polar Record » n° 9, 1935, an account of the opening ceremony of the new building of the Scott Polar Research Institute, Lensfield Road, Cambridge, is given, as well as a few extracts from the notes concerning hydrographic expeditions which appear in the same publication.

**An.** - Les expéditions de l'Institut Arctique en 1933 [*De navigationibus ab Instituto Arctico peractis, A. 1933*]. (En russe). Izv. Gos. Gheogr. Obstch., LXVI, 2, 325-328. Leningrad (1934).
**a - 725**

**An.** - New Arctic Expedition [*De recentiore navigatione ad regiones arcticas*]. Nature, CXXXIV, 3378, 132. London (1934).
**a - 726**

Short account of the British expedition to Ellesmere Land, which left London on July 17 in the Norwegian sealer « Signalhorn » under the leadership of Dr. Noel Humphreys. Other members of the Expedition. Promises of special interest in geological discoveries.

**An.** - Antarctic Exploration [*De exploratis regionibus antarcticis*]. Nature, CXXXIV, 3381, 246. London (1934).
**a - 727**

The « Penola », the vessel of Mr. J. Rymill's antarctic expedition was commissioned at Southampton on August 1934 and carried out preliminary trials preparatory to sailing for London, where the stores and scientific instruments will be taken on board.

It is hoped to trace the southern extensions of the Antarctic Andes which are known as the Graham Land islands.

**An.** - American Trans-Antarctic Flight [*De aëronavigatione transantarctica ab Americanis peracta*]. Nature, CXXXIV, 3381, 246. London (1934).
**a - 728**

Mr. Ellsworth proposes new plans for the southern summer of 1934-1935. His ship « Wyatt Earp » will reach Deception Island: from there Messrs. Ellsworth and Balchea propose to fly southward along the unknown western edge of the Weddel Sea to the ice-barrier at its head and then straight across Antarctic to the Bay of Whales on the Ross Sea.

**An.** - Beteiligung Oesterreichs am Internationalen Polarjahr, 1932/33 [*Studia et opera Austriaca quoad annum internationalem polorum. A. 1932/33*]. Polarforsch., 1, 2-3. Kiel (1934).
**a - 729**

**An.** - La Mission Polaire française à Scoresby-Sund (Groenland) [*De Gallica missione ad* Scoresby-Sund (*in Groenlandia*)]. Polarforsch., 1, 6-7. Kiel (1934).
**a - 730**

**An.** - British Polar Year Expedition 1932/33 (Report) [*De navigatione Britannica, polorum anno 1932/33.* (*Relatio*)]. Polarforsch., 1, 7-9. Kiel (1934).
**a - 731**

**An.** - The Second Joint Expedition of Yale University and the Woods Hole Oceanographic Institution [*De secunda expeditione a* Yale *Universitate inchoata, una cum oceanographico instituto cui nomen est* Woods Hole Oceanographic Institution. Science, LXXIX, 2041, 133. Washington (1934).
**a - 732**

This expedition on the research ship « Atlantis » is to complete the investigations begun in 1932, by hydrographic observations in the sectors between Jamaica and Central America and between the Caiman Islands and the southern coast of Cuba. Some details of the program.

**An.** - L'expédition hydrographique au Taymyr [*De navigatione, hydrographiae causa peracta ad* Taymyr]. (En russe). 2 Fig., 1 carte, Vodn. Transp., 2/3, 32-33. Moskva-Leningrad (1934).
**a - 733**

# GEOLOGIA MARIS

## Geologia generalis bacini oceanici – Marium origo – Vestigia veterum marium.

**Amato A.** - L'attività del servizio geologico in Tripolitania, nel primo anno della sua istituzione [*De Officio geologico in Tripolitania. Quaestio de activitate, primo recurrente anno ab institutione*]. Boll. Geogr., 5-6, 121-126. Tripoli (1934). **a - 734**

**Arkell W. J.** - The Jurassic System in Great Britain [*De systhemate jurassico in Britannia*]. Ills., maps., xii–682 pp., Clarendon Press. Oxford (1933). **a - 735**

Part I deals with modern ideas of the classification of strata and the divisions of geological time, since the times of William Smith and Alcide d'Orbigny onwards. In part II the author discusses the relations between deposition, contemporaneous earth–movements, and the floor on which the Jurassic strata were deposited. Part III consists of detailed stratigraphy, illustrated by many maps and over fifty photographs of characteristic Jurassic exposures - sea-cliffs, inland scarps, quarries, etc. In part IV the author makes an attempt at a palaeogeographical reconstruction of the British area in Jurassic times and applies his knowledge of modern coral–reefs to the elucidation of their distribution in the Jurassic sea.

**Aubert de La Rüe Edgar** - Premiers résultats d'une mission géologique aux Nouvelles Hébrides [*De missione geologica ad Novas Hebudas. Resultatus priores*]. C. R. Acad. Sc., CC., 8, 681-683. Paris (1935). **a - 736**

Compte rendu d'une série d'observations géologiques intéressantes sur la constitution de l'archipel des Nouvelles Hébrides qui prouvent l'origine continentale de ce groupe et mettent en évidence la présence d'un socle cristallin, l'extension des terrains sédimentaires tertiaires et probablement aussi secondaires, et l'existence d'au moins deux séries volcaniques distinctes. Certaines petites îles qui à première vue semblent exclusivement madréporiques, sont en réalité formées par des tufs volcaniques jaunes, sur lesquels sont édifiés les récifs coralliens, aujourd'hui soulevés.

**Bassler R. S.** - Report on the Department of Geology [*Relatio a Sectione Geologica redacta*]. 1 Table, Rep. U. S. Nat. Mus., 1932, 67-76. Washington D. C. (1932). **a - 737**

Account of the progress and work of the Department of Geology of the U. S. National Museum during the fiscal year ending June 30, 1932. Accessions. Installation and preservation of collections. Investigations and research. Distribution and exchange of specimens. Number of specimens under Department.

**Bucher Walter H.** - The Deformation of the Earth's Crust: an Inductive Approach to the Problems of Diastrophism [*De corticis terrestris deformationibus. Quaestio de diastrophismo*]. Diagrs., maps., xiv–518 pp., Univ. Press, Princeton (N. J.), Humphrey Milford. London (1933). **a - 738**

Author gives a revision of the data of the existing theories on earth–history and evolution; points out the two types of crustal elevations and depressions; discusses a great deal on isostasy, formulates some hypothesis as to the structure of the bottom of the Arctic and Atlantic oceans, and such of the Pacific; and in the last chapter summarizes his main personal views concerned with the deformation of earth's crust.

**Carandel J.** - Las condiciones del modelado erosivo en la vertiente mediterránea de la Cordillera Bética [*Condiciones meteorologicae, geologicae et hydrologicae zonae mediterraneae in* Cordillera Bética]. 4 lams., Bol. Soc. Españ. Hist. Natur., Enero-Fevrero, 39-62. Madrid (1935). **a - 739**

Temperaturas, vientos tipicos. Cursos fluviales de la vertiente, sus características. Gradientes. Aforos. El modelado erosivo. Trabajos conexos.

**Carter Neal M.** - Fiords and Fiord Formation [*De fiordis, quomodo formantur*]. Ann. Rep. Biol. Board Canada, 1933, 71. Ottawa (1934). **a - 740**

Brief account of further investigations of the fiord and fiord channels adjacent to the strait of Georgia, i. e. of Seechelt inlet, Narrows arm, Toba inlet, and several tributary channels. Results of a preliminary hydrographical survey of the area under consideration, bottom soundings, study of the stagnation of deep strata of water, result of dredging, study of the sedimentation of the glacial mud in the Toba inlet and the dissemination of the cold, silty water of this inlet.

**Chiesa Cesare** - Su alcuni nuovi fossili miocenici della Sirtica (Cirenaica) [*De fossilibus novis miocenicis Sirtidos* (*in Cirenaica*)]. Missione Scient. della R. Acc. d'It. a Cufra (1931-IX), III, 229-237. Roma (1934). **a - 741**

I fossili studiati appartengono al Miocene inferiore e medio (Langhiano ed Elveziano) e provengono dalle località site tra l'Oasi di Marada e la costa della Gran Sirte.

**Cipolla Francesco** - Tracce di antichi mari nel gruppo montuoso di Cammarata (prov. di Agrigento) e singolare piegamento quaternario [*Vestigia veterum marium in montibus* Cammarata (*in provincia Agrigentina*). *Agitur etiam de singulari quadam plicatione aetatis quaternariae*]. Boll. Soc. Sc. Nat. ed Econ. di Palermo, XV, 8-11. Palermo (1933-34). **a - 742**

**Cockfield W. E. & Lees E. J.** - The Occurrence of Marine Triassic in Southern Yukon [*Aetas triassica marina in regione meridionali* Yukon *nomine*]. Trans. R. Soc. Canada, Ser. 3, XXV, 4, 101-104. Ottawa (1931). **a - 743**

On hand of a study of fossils collected in 1929 and 1930 in the vicinity of lake Laberge and Lewes river to the north of the lake, the authors cite sufficient evidence to show the existence of marine Triassic in the area under consideration treating also the relations of the rocks of the series studied, to surrounding rocks.

**Coleman A. P.** - An Interglacial Champlain Sea [*Agitur de mari quodam interglaciali* Champlain *nomine*]. Amer. Journ. Sci., XXIV, 142, 311-315. New Haven, Conn. (1932). **a - 744**

Critical review of a memoir by Ernst Antevs on «Late–Glacial Correlations and Ice Recessions in Manitoba», published in «Memoirs», 168, Geol. Surv. Canada, 1931 with some evidence on peculiar conditions observed in several places along the St. Lawrence beds, where marine shells are covered with boulder clay or morainic deposits and therefore are interglacial.

**Cooke C. W.** - Tentative Correlation of American Glacial Chronology with the Marine Time Scale [*Collegatio inter glaceologicam chronologiam Americanam et schalam chronologicam marinam*]. Journ. Acad. Sc., 22, 310-312. Washington D. C. (1932). **a - 745**

Description of eight marine Quaternary terraces distinguished by the author on the east coast south of New York, which may be of preglacial and interglacial ages. Correlation between the formation of the terraces and the spasmodic uplifts of the lands or possibly with halts in the lowering of sea level as the ice sheets temporarily ceased growing.

**Cooke H. C.** - Studies of the Physiography of the Canadian Shield. III. The pre-Pliocene Physiographies, as inferred from the Geologic Record [*De physiographia plateae Canadensis. III. Physiographiae prae-pliocenicae ex adumbrationibus geologicis*]. 1 Fig., Trans. R. Soc. Canada, ser. 3, XXV, 4, 127-180. Ottawa (1931). **a - 746**

In the present third of a series of papers, the author attempts to infer the pre-Pliocene physiographies from a study of geologic records. Although this might seem at first sight a hopeless task, because rocks other than pre-Cambrian are found only around the edges of the Shield, nevertheless the careful consideration of the nature and succession of these rocks, and their relations, has yielded results of surprising interest, which are illustrated here by the author.

**Cooke H. C.** - Land and Sea on the Canadian Shield in Precambrian Time [*De terra atque mari in platea canadensi, aetate prae-cambriana*]. 7 Maps., Amer. Journ. Sc., XXVI, part I, 154, 428-441; part II, 155, 457-474. New Haven, Conn. (1933).

( — ) See: Summary by Bain George in Amer. Journ. Sc. XXVII, 160, 303-306. New Haven, Conn. (1934). **a - 747**

After emphasizing the difficulties in the definition of the sea and land relationship in Precambrian time, the author comments the maps he has elaborated, claiming that those cannot be considered as paleographic maps in the proper sense of the word because the boundary between land and sea could only be approximately known. In the text of the paper he illustrates the seven following maps elaborated: Keewatin period, Timiskaming period, Lower Huronian period, Middle Huronian period Upper Huronian period and Keweenawan period. For each map the different opinions existing on the boundary between land and water are reported.

**Daly Reginald Aldworth** - The Changing World of the Ice Age [*Agitur de variabilitate omnium animantium, aetate glaciali*]. 149 Ills., 29 tabl. xix–271 pp., Yale Univ. Press. New Haven, Conn. (1934).

( — ) See Review by R. F. Flint in « Amer. Journ. Sc. », XXIX, 171, 306-309. New Haven, Conn. (1935).

( — ) Nature, CXXXVI, 3439, 491-492 by H. D. London (1935).

( — ) Science, LXXXI, 2108, 516-517 by H. L. Fairchild. New York (1935). **a - 748**

Text of lectures delivered for the Silliman Lectures at Yale University early in 1934 on the far-reaching secular effects of the Pleistocene glaciers, especially the great ice sheets of the northern hemisphere. Author gives information on the probable extent of the ice sheets, their volume, contemporaneous existence, and effect on sea level, as well as a record of sea and lake associated with them. In a chapter on earth's deformation and recoil author makes an attempt at quantitative evaluation of plastic and elastic elements in the uplift of the crust following relief of ice load. In another chapter he deals with the question of high sea levels of the Pleistocene and present strandlines and illustrates with some modification the Glacial Control theory concerned with the coral reefs origin.

**De Lury J. S.** - The Auto-Traction Hypothesis and the Formation of Batholiths [*De hypothetica autotractione deque formatione batholitorum*]. 1 Fig., Trans. R. Soc. Canada, ser. 3, XX, 4, 199-222. Ottawa (1931). **a - 749**

The present paper is the first attempt made by the author to develop the auto-traction hypothesis, which he has presented in a previous paper, and to test it in more detail. In his hypothesis the author compares the earth-crust in many ways to a continental ice-sheet, with especial regard to the movement of both. In the light of this hypothesis he discusses the interior of the earth, its vertical and horizontal movements, the building of continents, the fragmentation of continents, the geological evidence of conditions at depth, the igneous problems, the thermal conditions in the crust, the depth of the sheet-zone of flow, the ice-sheets and analogies to crust. He concludes illustrating the applications of the hypothesis calling attention in general way to the bearing on igneous phenomena and on batholiths in particular. Between broader applications of the hypothesis, author mentions the problem of the existence of former continents and continental bridges, the destruction of the continents and bridges, the formation of ocean-deeps and island-festoons.

**Denizot G.** - Sur la structure des îles Canaries, considérée dans ses rapports avec les problèmes de l'Atlantide [*De Insulis Canariis consideratis ex earum correlationibus cum problematis ad Atlantidem pertinentibus*]. C. R. Acad. Sc., CIC, 5, 372-373. Paris (1934). **a - 750**

Relations avec le Miocène marin, non seulement aux Canaries, mais aussi à Madère; avec le Quaternaire marin à la Grande Canarie et à l'île de la Palma. Ces îles sont entourées de larges socles continentaux. Morphologie de ces îles. Conclusion.

**Denizot Georges** - Les phases tectoniques successives aux environs de Marseille [*De phasibus tectonicis subsequentibus apud Massiliam*]. C. R. Acad. Sc., CCI, 1, 90-92. Paris (1935). **a - 751**

Les mouvements tectoniques de la Provence occidentale se sont repartis sur plusieurs époques dès le milieu du Crétacé. Données sur les phases essentielles jusqu'aux cassures des couches miocènes.

**Eberzin A.** - Ueber das Alter der Konglomerate von Kap Pitzunda (Kaukasus) [*De conglomeratis ad promunturium* Pitzunda (*in Caucasica regione*) *pertinentibus. Quaestio de aetate*]. (In russ., deutsch. Rés.). C. R. Acad. Sc. U. R. S. S., III., 3, 194-196. Léningrad (1934). **a - 752**

Ergebnisse einer Untersuchung der unter der Benennung « Pitzunda-Konglomerate » bekannten ober-tertiären Ablagerungen an der Küste des Schwarzen Meeres zwischen Kap Pitzunda und dem Flusse Tschernaja. Vf. stellt fest, dass diese Konglomerate ihrem Alter nach eine Reihe von Stufen und Horizonten des Miozäns und des Pliozäns umfassen; sie bestehen aus gleichen, nur durch ihre eingeschlossene Fauna voneinander unterscheidbaren groben Küstenfazies.

**Fabiani R. & Stefanini G.** - La partecipazione dell'Italia alla XVI Sessione del Congresso Geologico Internazionale [*Sessio XVI^a Conventus Geologici Omnium Gentium. Studia et opera Italica*]. Ric. Scient., a. VI v. I, 2, 109-122. Roma (1935). **a - 753**

**Forrest Edward H.** - The Atlantean Continent: Its Bearing Upon the Great Ice Age and the Distribution of Species [*De Atlantica terra. Quaestio de eius momento pro aetate glaciali atque specierum distributione*]. Ills., maps. 328 pp., H. F. & G., Witherby. London (1933). **a - 754**

This work contains a new method of proof and new subsequent deductions regarding the former existence of a continent connecting Europe with North America.

**Fourmarier P.** - Principes de géologie [*Fundamenta geologica*]. 357 fig., 6 pl., 882 pp., Masson & Cie. Paris (1933). **a - 755**

Après une introduction, dans laquelle l'A. illustre les différentes méthodes de recherches géologiques, il traite les différentes branches de la géologie en partageant son exposé dans les cinq parties suivantes: I. Les différentes espèces de roches - effritement et érosion dans leur rapport au cycle des roches. La Terre comme planète. Les origines de la Terre. II. La formation des roches (sédimentations et vulcanisme). III. Évolution des roches. Plies, dislocations, unions, métamorphoses. Remplissage des espaces vides, théories de diastrophisme, interprétation des cartes géologiques. IV. Les masses continentales. (Description générale des particularités lithologiques et de structure de chaque continent, formation des grands plateaux, le parallélisme des mouvements de plissement successifs, et la distribution des géosynclinaux). V. Géographie physique, y compris la paléogéographie, la climatologie, l'océanographie, le cycle de l'érosion, l'hydrologie, les modifications dues au drainage des eaux, les formes de la terre et les profils des côtes.

**Fromaget Jacques** - Sur l'existence du Trias inférieur à faciès océanique au Sud de Luang-Prabang (Laos) et sur la paléogéographie de l'Asie Sud-Orientale à cette époque [*Agitur de exsistentia aetatis triassicae inferioris instar facierum oceanicarum in parte meridionali regionis* Luang-Prabang (Laos). *Agitur etiam de palaeographia Asiae sud-orientalis eodem tempore*]. 1 fig., C. R. Acad. Sc., CCI, 4, 2. Paris (1935). **a - 756**

Le gisement étudié fait admettre que l'ouverture du petit golfe qui alimenta B. P'a Nip marque l'origine de la disjontion qui donna la Géosynclinal du Haut-Mékong et son diverticule, le Synclinal du Haut-Laos. Cette découverte complète les renseignements déjà donnés par l'A. sur une nouvelle fosse marine. Eclaircissement sur l'évolution des contours des continents à la fin du Permien et au début du Trias.

**Gavira José** - Investigaciones Geologicas en Cabo Verde [*Investigationes geologicae in promunturio Viridi* (*hispanice* Cabo Verde)]. Bol. Soc. Geogr. Nac., LXXIV, 8, 481. Madrid (1934). **a - 757**

Breve nota sobre investigaciones promovidas por la Comisión de Cartografia del Ministerio de colonias portugués. Los resultados se han publicado por I. Bacelar Bebiano en las Comunicaciones de los Servicios Geológicas de Portugal (I, 18, 1932) con el titulo de Geologia del Archipielago de Cabo Verde.

**Georgi J.** - Einige geophysikalische Probleme bei A. Wegeners Grönland-Expedition [*De problematis scientiae geophysicae solutis inter navigationem ab Alfredo* Wegener *peractam in Groenlandiam*]. Nova Acta Leopold., N. F. 1, 2 & 3, 337-339. Halle a. d. Saale (1933). **a - 758**

**Grigorovitch - Beresovskii N. A.** - A Brief Geological and Hydrogeological Description of the Territory to the Manich Sea-canal [*Descriptio brevior geologica et hydrologica territorii ad canalem maritimum* Manich *nomine pertinentis*]. (In Russ., Engl. rés.). Chart, Problems Geol. U. S. S. R., II, 181-202. Moscow (1933). **a - 759**

**Hanzawa Shôshirô** - Geological History of the Ryûkyû Islands [*De historia geologica insularum* Ryukyu]. Proc. Imp. Acad., XI, 2, 58-61. Tokyo (1935). **a - 760**

A very condensed summary of the results obtained by author's geological studies of the Ryûkyû Islands conducted during the years 1929 to 1933. The geological history of these islands begins with the Permian Period: author compares it with the geological history of Taiwan and the main islands of Japan and describes its consecutive phases.

**Hawkes L.** - The Hypothesis of the Continental Drift [*De amotione terrarum continentium*]. Nature, CXXXV, 3409, 342-343. London (1935). **a - 761**

With especial regard to the results obtained by Hans Jelstrup at the station of Sabine I, East Greenland during determination of longitude and its comparison with data obtained in 1870, the author claims, that, in order to test the late Dr. Wegener's hypothesis of « continental drift » some international body has to take up the matter: (1) to inquire what stations have been determined with sufficient accuracy to be of use (2), to consider what further stations shall be established, und (3) to organise periodic determinations every five or ten years in the future.

**Jérénime E.** - Contribution à l'étude pétrographique des trois îles de l'archipel Canarien. Tenerife, Las Palmas, Gran Canaria [*Contributio in petrographiam studendam trium insularum ad archipelagum Canariarum pertinentium.* Tenerife, Las Palmas, Gran Canaria]. 4 pl., tabl., 4 fig., Bull. Soc. Franç. de Minéralogie, LVI, 189-261. Paris (1933). **a - 762**

Le travail se compose d'une partie générale et de trois chapitres dédiés chacun à une des îles. Etude de la formation et évolution des îles et des éruptions; description micrographique des roches.

**Kober L.** - Die Orogentheorie: Grundlinien eines natürlichen Gestaltungsbildes der Erde [*Ratio orogenetica. Lineae fundamentales cuiusdam formationis naturalis Terrae*]. Diagr. u. Karten, 184 S., Bornträger. Berlin (1933). **a - 763**

Im vorliegenden Werke behandelt Vf. in ausführlicher Weise die Grundlagen der von ihm in seinen vorgehenden Werken ausgearbeiteten Orogentheorie, mit besonderer Berücksichtigung der Entwicklung der orogenischen und kratogenischen Landschaften, der Dynamik der bergebildenden Prozesse und, im letzen Teile seines Buches, der Bildung der Kontinente und der ozeanischen Becken im Lichte seiner Theorie.

**Ličkov B. L.** - On the Last Pages of the History of the Black Sea [*De historia recentiore Ponti Euxini*]. (In Russ., Engl. rés.). Problems Geol. U. S. S. R., 89-109. Moscow (1933). **a - 764**

**Lungershausen L.** - Ueber die Stratigraphie der « Balta-Stufe » [*Quaestio de strato nomine* Balta *eiusque stratigraphia*]. (In Russ., Deutsch. rés.). 1 Taf., C. R. Acad. Sc. U. R. S. S., II, 6, 381-388. Léningrad (1934). **a - 765**

Bericht über die Ergebnisse der Forschung des Vf. der sehr eigenartigen sandig-tonigen Neogenablagerungen kontinentalen Typus innerhalb des Dnjepr- und des Bugbeckens, welche unter der Bezeichnung Balta-Stufe bekannt sind. Er veranschaulicht die von ihm ausgearbeitete stratigraphische Aufteilung des Balta-Komplexes nebst seinen equivalenten Neogenschichten auf Grund einer Tabelle über den Bereich der Entwicklung des Baltas, des südlichen Schwarzmeerküstengebietes und der Donauländer.

**McLearn F. H.** - Problems of the Lower Cretaceaous of the Canadian Interior [*De aetate cretacea inferiore in internis regionibus Canadensibus*]. 6 Figs., Trans. R. Soc. Canada, ser. 3, XXVI, 4, 157-175. Ottawa (1932). **a - 766**

The first part of this paper is devoted to chronology and to problems of correlation. In addition, as it is shown in the second part of the paper, some interesting theoretical results may be anticipated concerning the shifting of seas, marginal alluvian plains and coal swamps, as well as the behaviour of the positive of geanticlinal element to the west and other phenomena of the continental interior in Lower Cretaceous time. Under the heading « Problems of Correlation » four sections are considered: a prevailingly marine Lower Cretaceous section in the northern Great Plains, a nonmarine section in the Blairmore and adjacent areas, a mostly non-marine section in the foothills of west central Alberta, and a mixed marine and nonmarine section in the foothills of the northwest. In four palaeogeographic maps the geography of the region in different times is represented: they show clearly the extension and the restriction of the sea.

**Mertie J. B. Jr.** - Notes on the Geography and Geology of Lituya Bay, Alaska [*De baja* Lituya (*in Alaska*). *Quaestio de geographia et geologia*]. 4 Figs., U. S. Geol. Surv., Bull., 836, B, 117-135. Washington D. C. (1932). **a - 767**

Information on Lituya Bay, which is a narrow tidal inlet on the Pacific coast discovered by the French explorer La Pérouse.

**Nagaoka H. & Shirai T.** - Lines of Fissure through Central Japan and the Sea of Japan physically considered [*De fissuris per Japoniam centralem et mare Japonicum e scientia physica consideratis*]. 1 Fig., Proc. Imp. Acad., IX, 8, 382-385. Tokyo (1933). **a - 768**

**Nichols D. A.** - Solifluction and Other Features in Northern Canada Shown by Photographs from the Air [*De solifluctuatione aliisque phaenomenis in Canadensis regione ex aërophotographia*] 8 Pls., Trans. R. Soc. Canada, ser. 3, XXVI, 4, 367-276. Ottawa (1932). **a - 769**

Account of many unusual forms observed while examining aerial photographs taken by the Royal Air Force of Canada, for mapping purpose with especial regard to solifluction, which is an unusual soil flow process which is often noticed in alpine areas, but its widest extent is in the polar and sub-polar regions, raised beaches und terraces which record the oscillations of level throughout the Northern part of North America, eskers, « ispatinows », faults and other structural features.

**Nikolajev I. G.** - The Geological Expedition to the Bulun District [*De navigatione geologiae causa in districtum nomine* Bulun]. (In Russ. & Engl.). Bull. Arct. Inst., 2, 58-61, 102-105. Leningrad (1934). **a - 770**

Account of an expedition sent out by the Central Administration of the Northern Sea Route in order to investigate the possibility of utilization of the coal from carboniferous formations in the lower Lena district for the purpose of navigation. It is shown that the complexity in structure and composition of the coal-beds investigated, diminishes considerably the possibility of the use of their coal as ship fuel.

**Noszky Jenö** - Beiträge zur Kenntnis der Kretazeischen Bildungen des Nördlichen Bakony [*Contributio in formationes cretaceas septentrionales* Bakony *studendas*]. (In Ungar., Dtsch. rés.). Tab. Abb. Földtani Közlöny (Geol. Mitt.), LXIV, 4/6, 99-136. Budapest (1934). **a - 771**

Eingehende Gliederung der kretazeischen Schichten des N-lichen Bakony-Gebirges auf Grund der unter den gegebenen örtlichen Verhältnissen möglich gewesenen lithologischen und paläontologischen Untersuchungen. Feststellung einer kontinuierlichen Sedimentreihe in Bezug auf die Bildungen des oberen Jura und der unteren Kreide im Gebiet der N-lichen Bakony mit einer ununterbrochenen Ueberflutung vom Meer.

**Nowak Jan** - Geologiczna przeszlość Baltyku [*Historia geologica maris Baltici*]. 2 Figs., 37 pp., Instit. Baltique. Toruń (1933). **a - 772**

**Obroutchev L.** - Recherches géologiques de l'Institut Arctique en 1934 [*De investigationibus geologicis per Institutum Arcticum susceptis, A. 1934*]. (En russe). Bull. Arct. Inst., 5, 222-225. Leningrad (1934).

(—) English summary in: Bull. Arct. Inst., 6/7, 287-290. Leningrad. **a - 773**

Bref compte rendu des travaux d'exploration géologique conduits sous les auspices de l'Institut Arctique à (1) Novaja Zemlja, (2) la Terre de François-Joseph, (3) la péninsule Tajmyr, (4) Severnaja Zemlja, (5) le bassin du fleuve Obj, (6) l'embouchure du fleuve Lena, (7) les monts Kharaoulakh, (8) la chaîne de Tchékanovkij (région entre le Lena et Olenek) (9) l'Ile de Wrangel, (10) la côte nord de la région de Tchoukhotsk, (11) la péninsule de Tchoukhotsk et (12) la région d'Anadyrj.

**Otuka Yanosuke** - Contraction of the Japanese Islands since the Middle Neogene (Advance Paper) [*De contractione Insularum Japonicarum media aetate neogenica*]. Bull. Earthquake Research Inst., XI, Part. IV, 724-731. Tokyo (1933). **a - 774**

**Pench Albrecht** - Eustatische Bewegungen des Meeresspiegels während der Eiszeit [*De motibus eustaticis maris superficiei, aetate glaciali*]. Geogr. Ztg., XXXIX, 5, 329-339. Leipzig (1933). **a - 775**

L'A. donne les résultats de ses travaux et analyse ceux des auteurs principaux qui ont traité l'argument; à savoir: Ramsay, Daly, Gregory etc.

**Pustovalov I.** - Geological Expedition Sent Out by the Arctic Institute to Novaja Zemlja (Western Area) in 1933 [*De navigatione geologica ad* Novaja Zemlja *per Institutum Arcticum suscepta, A. 1933*]. (In Russ. & Engl.). Bull. Arct. Inst., 2, 55-58, 98-100. Leningrad (1934). **a - 776**

Account of the work of the expedition in the area at the western coast of Novaja Zemlja between Inostrantzev Bay and Russian Harbour. Topographical survey and geological prospecting of the coastal plane and the internal mountain area. Results of the stratigraphic section of the region investigated.

**Renz Carl** - Beiträge zur Geologie der Kykladeninsel Amorgos [*Contributio in geologiam studendam insularum Cycladum*]. 1 Abb., Eclogae Geol. Helveticae, XXIV, 2, 131-154. Basel (1933). **a - 777**

**Richey J. E.** - Guide to the Geological Model of Ardnamurchan [*Explanatio in modulum geologicum ad* Ardnamurchan *pertinentem*]. 11 Pls., Mem. Geol. Surv. Scotland, vi + 49 pp. Edinburgh (1934). **a - 778**

This report serves as an explanation to the geological model constructed on the scale of 4 miles to inch, of the Ardnamurchan Peninsula, which is the westernmost part of the mainland of Scotland. It is essentially a condensation of the nemoir on the Geology of Ardnamurchan, by J. E. Richey & H. H. Thomas, which was published in 1930. The illustrations of the report show the three successive centers of intrusion, each surrounded by a remarkable assemblage of ring-dikes and cone-sheets.

**Richter Herman** - Studier över den yttre strandzonens dynamik och morfologi inom södra Östersjöområdets flack-kust. [*De dynamica et morphologia in zona externa orae maritimae maris Baltici meridionalis*]. (Explanatory text to the figures in Engl.). Sv. Geogr. Årsb. 1934, X, 7-55. Lund (1934). **a - 779**

The preglacial development. The interglacial Baltic. The late quaternary changements of the level. The tectonic conditions and the coast-line. Different types of coast. Wind conditions. Changements of the sea-level and the movements of the waves. Offshore bars and reef formations. Currents (To be continued).

**Robaux Albert** - Sur l'existence de l'Eocène supérieur et de l'Oligocène dans la série du Flysch du Sud de la province de Cadix [*De Eocene superiore et Oligocene in serie* Flysch *nomine apud Gades*]. C. R. Acad. Sc., CC., 8, 685-687. Paris (1935). **a - 780**

A compléter les informations déjà données sur l'existence du Crétacé supérieur à la base du Flysch de la province de Cadix (v.: C. R., CC, p. 478, 1935), l'A. illustre dans la présente note plusieurs niveaux qui complètent la série tertiaire vers le haut. Cette série est affectée d'une faille qui ramène le Crétacé au contact de l'Eocène supérieur. L'A. décrit la stratification et la faune du Nummulitique de Cerro de Arguëlles et de Carro del Pico, et démontre que la série nummulitique est bien développée dans tout le Sud de la province de Cadix et que l'on y peut reconnaître le Lutétien complet lorsque les faunes sont bien conservées et permettent des subdivisions, puis l'Eocène supérieur et localement l'Oligocène.

**Rovereto G.** - Epirogenesi postpliocenica delle Alpi Marittime e della Riviera Ligure [*De epirogenesi postpliocenica Alpium maritimarum atque Litoris Ligustici*]. Atti R. Acc. Naz. Lincei - Rend. Cl. Sc. Fis., Mat. e Nat., serie VI, XX, 5-6. Roma (1934). **a - 781**

Lungo la Riviera Ligure, in dipendenza delle Alpi Marittime, il pliocene raggiunge un'altitudine, che è in media di m. 340 superiore a quella che si osserva nel pliocene del restante della Riviera. Ciò è indizio di una epirogenesi, la quale, essendo il terrazzamento quaternario della Riviera nelle condizioni altimetriche ordinarie, è avvenuta nei tempi immediatamente posteriori all'astiano.

**Russo P. & L.** - Essai d'une coordination tectonique de l'évolution de la Méditerranée [*Exemplum evolutionis tectonicae quoad Mare Mediterraneum*]. 7 fig., pl., cartes, croquis, 40 pp. Mém. Soc. Sc. Nat. Maroc, XXXIV, 31 mars. Rabat - Paris - Londres (1933). **a - 782**

**Smit Sibinga G. L.** - Geologie en zwaartekracht in den Indischen Archipel. Critische beschouwing over eenige recente publicaties van Prof. Dr. J. H. F. Umbgrove [*De geologia et gravitatione in Archipelago Indiano. Recognitio critica aliquarum publicationum recentiorum Professoris J. H. F.* Umbgrove]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LII, 4, 515-524. Leiden (1935). **a - 783**

Critical review of the works of D. Umbgrove appeared in 1932 concerning the stratigraphy of the Neogene and investigations of the gravity in the Indian Archipelago.

**Taricco Michele** - Geologia del foglio Isola di S. Pietro-Capo Sperone (Sardegna) [*De geologia folii nautici, regionem ab insula Scti. Petri ad promunturium* Sperone (*in Sardinia*) *repraesentantis*]. 12 fig., 4 tav. f. t. Boll. R. Uff. Geol. d'It., LIX, 1/2, 1-78, Roma (1934). **a - 784**

Si illustra il foglio suddetto con la descrizione litologica di ogni formazione, con particolare riguardo alle rocce vulcaniche che coprono buona parte dell'area. Di queste sono stati distinti otto gruppi principali colla loro successione, sensibilmente diversi per composizione e per posizione relativa da quella ammessa da altri autori. A partire dalle più antiche si hanno: andesiti e basalti *a*, cui segue una liparite rossa $\tau 4$, una biotite $\tau 3$, commenditi C, lipariti diasprigne od a grossi inclusi neri $\tau 2$, tufi terrosi o litoidi $\tau 1$ ed infine la liparite $\tau$ corrispondente all'ultima e più estesa espansione, che giunge a chilometri 40 nel senso E-O ed a 30 nel senso N-S. Un tipo a sè, decisamente trachitico, si ha nella $\tau t$ dell'isolotto del Toro. Sono dati cenni sulla tettonica, sui fenomeni vari, sulla vegetazione, sulla idrografia, sulle cave.

**Terada Torahiko** - Vertical Movement of Earth's Crust and Growth of Coral Reef [*Motus verticalis corticis terrestris atque accretio scopulorum coralliferorum*]. Proc. Imp. Acad., X, 10, 643-645. Tokyo (1934). **a - 785**

On the striking coincidence of the rate of growth of some reef-building corals with that of the amount of secular subsidence of the earth's crust at the promontories on the Pacific coast of Honsyû, Japan.

**Tollner Hanns** - Die Frage der Westdrift Jan Mayens [*Quaestio de amotione ad occidentem versus insulae* Jan Mayen]. Peterm. Mitt., LXXX, 10, 300-301. Gotha (1934). **a - 786**

Die durch den Vergleich der Längen-und Breitenbestimmungen 1882/83 und 1933 bestätigte Verschiebung und Bedenkungen gegen ihre Richtigkeit. (Literaturhinweisungen).

**Umbgrove J. H. F.** - Over het ontstaan van den Indischen Archipel [*De archipelago Indiano. Quaestio de originibus*]. 1 Map., Tijdschr. Kon. Ned., Aardr. Gen. Amsterdam, LII, 1, 17-24. Leiden (1935). **a - 787**

After a short review of preceding views on this problem the A. gives an account of the conclusions which have been drawn on the basis of Vening Meinesz' gravity expeditions in the East Indian Archipelago during 1923–1932. (See also Gravity Expeditions at Sea 1923-1932. Vol. II by F. A. Vening Meinesz with the collaboration of J. H. F. Umbgrove, Chapter VI, The relation between Geology and Gravity Field in the East Indian Archipelago; Chapter VII, A short survey of theories on the origin of the East Indian Archipelago and Ph. H. Kuenen, Chapter VIII, Relations between submarine topography and gravity field; Ed. by Rykscommissie van Graadmeting en Waterpassing, Delft 1934).

**Undås Isak** - Fra istiden i Trøndelag. I. [*De aetate glaciali in regione* Trøndelag (*in Norvegia*). *I.*]. (Engl. Rés.). 12 Fig., Kgl. Norsk. Vidensk. Selsk. Skr., 1934, 7–62. Trondhjem (1935). **a - 788**

Preliminary results of quaternary investigations undertaken in 1931 and 1932 on the coasts of Trøndelag: levelling of strandlines and shore ridges and projection of the heights in metres; conclusions as to marine limits; marine fossils.

**Vardaniantz L.** - On the Age of the Relief of the Ciscaucasia [*De aetate elationis geologicae in Ciscaucasia*]. (In Russ. & Engl.). C. R. Acad., Sc., U. R. S. S., I, 7, 427-432. Léningrad (1934). **a - 789**

Some evidence concerned with the geological constitution of the Ciscaucasia on hand of the study of the valley of the Kalaus River; author claims that the whole of the actual relief of the Ciscaucasia has been formed in Post-Pliocene only, more exactly in its upper half, i. e. in the presence of primitive Man.

**Vardaniantz L.** - On the Upper Jurassic Orogenetic Phases of the Caucasus [*De phasibus orogeneticis aetatis jurassicae superioris in Caucaso*]. (In Russ., Engl. Summ.). C. R. Acad. Sc. U. R. S. S., III, 5, 390-393. Léningrad (1934). **a - 790**

Author establishes five tectonic phases and the way they are displayed in Caucasus; he illustrates the mountain building which took place in the western part of the Main Caucasus and partly in Transcaucasia and shows that, on the contrary, during the same period, i. e. the Upper Jurassic, no mountain formation took place in the region of the Georgian Military Road, where very probably a sea existed through the whole Upper Jurassic. At the time of the most intensive tectonic phases this sea became a strait which divided the two upheavals, those of Western Caucasus and of Daghestan.

**Vautrin H.** - Sur l'orogénèse du massif de l'Hermon (Syrie) [*De orogenesi montium ad regionem centralem nomine* Hermon *pertinentium* (*in Syria*)]. 1 fig., C. R. Acad. Sc., CXCIX, 1, 82-84. Paris (1934). **a - 791**

Quelques résultats de recherches faites par la Section Géographique du Haut-Commissariat français au Levant sur l'orogénèse du massif de l'Hermon (Syrie) qui est due à une série de mouvements d'échelonnement du Jurassique au Quaternaire, mouvements ayant provoqué la surrection de ce massif, son émersion et sa formation actuelle.

**Vlodavetz V.** - Contribution to the Petrography of Hooker Island [*Contributio in petrographiam studendam insulae* Hooker *nomine*]. (In Russ., Engl. Summ.). 4 Figs., 9 tabl., 4 pls. Trans. Arct. Inst., XIII, 87-112. Leningrad (1934). **a - 792**

This paper contains an account of the results of a study of materials collected by I. M. Ivanov on Hooker Island, Franz-Joseph Land. The author describes on hand of these materials the geological structure of the island, with especial reference to the single strata and their composition.

**Vlodavetz V.** - Observations géologiques et pétrographiques, exécutées au cours de l'expédition du brise-glace « Sibirjakov » en 1932 [*Observationes geologicae et petrographicae inter navigationem navis glaciei-ruptricis nomine* « Sibirjakov » *peractae, A. 1932*]. (En russe). 5 tabl., Trudy Arkt. Inst. (Trav. Inst. Arct.), X, 175–207. Leningrad (1933). **a - 793**

**Woodring W. P.** - Fossils from the Marine Pleistocene Terraces of the San Pedro Hills, California [*Fossilia ad solaria marina pleistocenica in* San Pedro Hills (*in California*) *pertinentia*]. 1 map, 3 tabl. Amer. Journ. Sc., XXIX, 171, 292-305. New Haven, Conn. (1935). **a - 794**

The present paper represents a preliminary account on the discovery of fossils on many of the terraces of San Pedro Hills, which reach an altitude of 1480 feet above sea level and constitute an upland peninsula along part of the southwest side of the Los Angeles Plain. It discusses the chronologic and climatic significance of the fossils, and in three tables gives information on the terraces, fossil localities, and faunal facies, i. e., the section of deposits of twelfth terrace in Highway Cut on Southeast slope of San Petro Hill; the species of southern aspect in mixed tide pool and protected by facies on third and second terraces; the species of Northern and Southern aspect in deposits on first terrace on Leeward side of Hills.

**Woodworth J. B. & Wigglesworth Edw.** - Geography and Geology of the Region Including Cape Cod, the Elizabeth Islands, Nantucket, Marthas Vineyard, No Man's Land and Block Island [*De geographia et geologia regionum quas supra memoravimus*]. 38 pls. Mem. Mus. Comp. Zool. Harvard Coll., LII, xvi-322 pp. Cambridge (1934). **a - 795**

The book gives a good picture of the earlier history of the Cape Cod district, which has a particular importance lying as it does in the zone of the drift border, and underlain by week coastal-plain strata and giving therefore a better record of pre-Late-Glacial events than other parts of New England. The Pleistocene record involve the four glacial stages of the Standard Mississippi Valley section. The memoir is based upon a field work carried out mainly in 1914 and 1915, but begun by the senior author before 1900.

**Young G. A.** - The Geological Investigation of the Canadian Shield (Canadian Portion) 1882 to 1932. Part I, 1882 to 1897, Part II, 1897 to 1912 [*De exploratione geologica plateae Canadensis ab A. 1882 ad A. 1932*]. Trans. R. Soc. Canada, Ser. 3, XXVI, 4, 341-371, XXVII, 4, 67-108. Ottawa (1932-1933). **a - 796**

Summaries of some of the main conclusions contained in accounts of the geology of the Canadian Shield. The I part of the work contains 87 titles of publications mentioned in the foot-notes of the article. The II one contains 127 titles.

**Zahálka Čeněk** - Krĭdový utvar v zàpadnin bassinu anglopařižském a v Čechach. Čàst 5. Turonien a Sénienien (Pokračovani) [*Aetas cretacea in regione occidentali Anglo–Parisina et in Bohemia. Pars V. Aetas turoniana et senoniana*]. (En tchèque, rés. franç.). Tables. Vestn. Kral. Ceské Spol. Nauk, Tr. Mat.-Prirod. (Mém. Soc. R. Sc. de Bohème, Cl. Sc.), I, 1-35. Prague (1934). **a - 797**

Ressemblances remarquables du delta armoricain avec le Crétacique de la Bohême. Présence des roches spongilitiques, des masses de Bryozoaires, les ondulations des couches gréseuses et leur composition analogue. Note des coupes des régions crétacées en France et en Angleterre avec, à côté de chaque zone, le symbole de son équivalent bohémien.

**Zalesky B. & Belikov B.** - Building Stones of the Keret-Sonostrov District (White Sea) [*Saxa aedilicia in districtu* Keret-Sonostrov]. (In Russ., Engl. Summ.). 6 Figs., 8 tables, 2 pls., 1 map. Trans. Arct. Inst., XIII, 115-141. Leningrad (1934). **a - 798**

Results of an exploration of the coast of Kandalakscha Gulf, from the village Keret to the village Sonostrov, carried on in order to find a place for the establishment of a building-stone quarry. Description of the rocks encountered on the shore of the White Sea in the locality under consideration.

**Zubkov A.** - On the Intensiveness of the Deflation Process in the Arctic [*De depressione arctica eiusque intensitate*]. (In Russ., & Engl.).

1 tabl. Bull. Arct. Inst., 8/9, 311-312, 341-342. Leningrad (1934). **a - 799**

Account of the investigation of a most intensive process of surface deflation observed in Novaja Zemlja, where owing to strong winds attaining the force of hurricanes the greatest part of the surface is usually deprived of any snow-cover. The investigation carried on in Russian Harbour in 1932-1933 in respect to the quantitative part of the deflation process showed that the deflation of the Northern Island of Novaja Zemlja amount to 0.1 mm. per 24 hours, i. e. to 36.5 mm. in one year.

**K. A. S.** - La dérive Ouest de l'Ile Jan Mayen ? [*De amotione ad occidentem versus Insulae* Jan Mayen]. (En russe). 1 tabl. Bull. Arct. Inst., 11/12, 417. Leningrad (1934). **a - 800**

Quelques considérations, empruntées à un article publié dans « Petermanns Mitteilungen » n. 10, 1934, concernant la nouvelle détermination du point sur l'Ile de Jan Mayen, faite à l'occasion de la Deuxième Année Polaire Internationale, et qui, malgré les différences constatées, ne semble pas pouvoir constituer une preuve à l'appui de la théorie de Wegener sur la dérive des continents.

**An.** - Geological Work in Providence Bay [*Opera geologica in* Providence Bay]. (In Russ. & Engl.). Bull. Arct. Inst., 6/7, 267 & 294. Leningrad (1934). **a - 801**

Brief program of the work to be carried out in order to complete petrographical und geological investigation of the southern coast of the Bering Sea, between the western shore of Providence Bay and Lake Achan.

**An.** - Geology of the Orkneys [*Regio nomine* Orkneys. *Quaestio de geologia*]. Nature, CXXXIV, 3399, 976. London (1934). **a - 802**

Short note of general character.

## Litora et orae maritimae - Erosiones.

**Alcock F. J. & Miller A. H.** - Plumb-Line Deflections and Gravity Anomalies in Gaspé Peninsula and their Significance [*De perpendiculi deflectionibus deque gravitatis anomaliis in paeninsula* Gaspé *nomine earumque significatione*]. 1 Map., 2 figs., 3 tabl., Trans. R. Soc. Canada, ser. 3, XXVI, 4, 321-333. Ottawa (1932). **a - 803**

After a brief exposure of the geological history of Gaspé marked by many earth movements, the A.A. give an account of their study of plumb-line deflections and gravity determinations, carried out in the hope to throw some light on past or future vertical movements of this region. They illustrate the method used and give the results of computations in connection with the deflections of the vertical in tables I and II and on the map. Some considerations are also given as to the validity of the relations which seem to hold for Gaspé in case greater areas are taken into account, and attention is drawn to the fact that along the Atlantic coast from the international boundary south to Boston, there is a definite and persistent trend to the deflection anomalies, indicating a marked increase in density off the coast.

**Andrade (de) Carlos Bento Freire** - A tectonica do Estuarion do Tejo e dos vales submarinos ao largo da Costa da Caparica, e a sua relaçao com as nascentes termo medicinais de Lisboa (Consideraçoes preliminares). [*De tectonica in aestuario fluminis* Tejo *vallibusque submarinis longe a litoribus nomine* Caparica *eiusque correlatione cum fontibus thermalibus Olisippensibus*]. 1 Carta, 20 pp. Communicaçoes Serv. Geol. de Portugal, XIX. Lisboa (1933). **a - 804**

**Besairie H., Guyelle P., Lenoble A. & Savornin A.** - Etude géologique et magnétique de la falaise de la Mandraka (Madagascar) [*Studium geologicum et magneticum saxorum litoraneorum in regione* Mandraka *nomine* (*in* Madagascar). C. R. Acad. Sc., CC., 19, 1614-1616. Paris (1935). **a - 805**

Compte rendu d'une exploration géologique et magnétique de la falaise de la Mandraka qui fait partie de la grande *cuesta* de l'Etat de Madagascar, exploration entreprise dans le but d'établir si cette *cuesta* est due à l'érosion ou si elle est d'origine tectonique. Résultats de la mesure des éléments du champ magnétique faite en janvier 1935 en 13 stations s'échelonnant le long de la route.

**Blanchard Raoul A.** - Notes sur les côtes de Colombie Britannique et d'Alaska [*De litoribus in Columbia Britannica et in* Alaska]. 1 fig., 3 pl., phot., Rev. de Géogr. Alpine, XXI, 271-287. Grenoble (193 ). **a - 806**

Observations faites du pont du navire par l'A. pendant un voyage le long de ces côtes, entre Vancouver et Skagway.

**Castaldi Francesco** - Forme di erosione eolica nei Campi Flegrei. I. Erosioni nei tufi di Porto Miseno [*De erosione eolica in Campis Phlegraeis. Erosiones in tuphis ad portum Misenum pertinentibus*]. (Bibl.). Riv. di Fis., Mat. e Sc. Nat., a. VIII, ser. II, 6, 403-418. Napoli (1934). **a - 807**

L'A. si occupa, in un'accurata indagine, delle forme di erosione eolica che hanno contribuito, nei Campi Flegrei, alla disgregazione di alcuni apparati eruttivi: ha prescelto quale inizio, il cratere di Porto Miseno, il centrale dei tre apparati vulcanici situati all'estremo limite del golfo di Napoli.

**Cendrero Orestes** - Las dunas de Berria (Santoña, Santander) [*De arenosis molibus ad regionem* Berria (*in* Santoña, Santander) *pertinentibus*]. 2 lam., Bol. Soc. Esp. Hist. Nat., XXXIV, 7, 393-394. Madrid (1934). **a - 808**

Ocupan una extensión de 1800 metros, siendo su anchura media de unos 150. Origenes de estas dunas. Existencia de un gran montón de arena en la base del Brusco. Efecto del viento Noroeste. Plantas que principalmente han contribuido a fijar las dunas.

**Dartevelle Edmond & Schneegans Daniel** - Gisement fossilifère de Futa (Afrique Equatoriale française) et quaternaire de la zone littorale du Congo [*De fossilibus ad* Futa *pertinentibus* (*in Africa Aequatoriali Gallica*) *deque aetate quaternaria in litoribus regionis Congolensis*]. C. R. Acad. Sc., CIC, 26, 1635-1636. Paris (1934). **a - 809**

**Derancourt E.** - Les côtes de la France à l'époque gallo-romaine (II$^{\text{ème}}$ siècle) [*De litoribus Gallicis aetate Romanorum* (*II*$^{o}$ *sec.*)]. 1 carte, croquis, Bull. Soc. Océanogr. France, 81, 1419-1423; 82, 1425-1434; 83, 84, 1460-1467; 85, 1487-1488. Paris (1935). **a - 810**

Dans le présent ouvrage l'A. donne une vue d'ensemble et quelques explications essentielles sur les multiples transformations qui ont, à maintes et maintes reprises, modifié les côtes de l'Océan, de la Manche ou de la Méditerranée. Données de Ptolomée sur l'estuaire de la Seine qui est une preuve tangible des mouvements du sol et des variations de niveau de la mer qui l'ont modelé. Ligne des anciens rivages reportée vers les isobathes de –20 et –22 mètres, au large des côtes françaises. Les variations de la limite du

rivage de Fécamp à Dieppe. La théorie de M. A. Chévremont sur la formation du golfe normano-breton. Témoignages en faveur du rattachement des îles existant actuellement dans ce golfe, à la terre ferme. Immersion de la région sousmarine actuelle comprise entre la côte et les roches Douvres. L'ancien littoral du IIème siècle de la Bretagne et son immersion au cours des siècles. Considérations concernant les côtes de l'ancienne mer d'Aquitaine. L'Océan d'Aquitaine de Gobœum promontorium à Canentelli fluvii Ostia. La Méditerranée. (A suivre).

**Dugué J.** - Les bancs de vase de la côte de la Guyane. [*De vadis lutulentis litorum Guyanensium*]. Bull. Soc. Ing. Col., 87-94. Paris (1933). a - 811

**Freyberg (von) B.** - Alte und junge Strandlinien auf Gotland [*De novis veteribusque lineis litoreis in Gotlandia*]. 15 Abb., Natur u. Volk, LXIV, 10, 387-398. Frankfurt a. M. (1934). a - 812

Auf Gotland lässt sich mit grosser Genauigkeit die Küstenlinie der *Ancylus* - und *Littorina* - Zeit festlegen. Nach einer kurzen Uebersicht der Eiszeit Nordeuropas mit besonderer Rücksicht der Fossilien werden hier die gotländischen Reliefveränderungen, welche durch das Schwanken des Seespiegels entstanden, behandelt. Sehr gut gelungene Bilder mit erklärender Text sind auch eingeschlossen.

**Higgins L. S.** - Coastal Changes in South Wales. The Excavation of an old Beach [*De litorum mutationibus in regione meridionali* Wales *nomine. De inventa vetere quadam ora maritima*]. Geol. Magaz., LXX, Dec., 541-549. London (1933). a - 813

**Jacoby G.** - Beiträge zur Untersuchung der Senkung unserer Küstengebiete [*Contributio in depressionem studendam Germanicorum litorum*]. 1 Taf., a. T., Ann. d. Hydrogr., LXIII, 3, 99-121. Berlin (1935). a - 814

A. Einleitung. B. Unstimmigkeit. Widersprüche. Fehler. C. Besprechung einzelner Angaben. I. Höhenverluste: *a*) Substanzverlust des Untergrunds der Marsch (also nicht des Marschbodens selbst); *b*) Höhenverluste des Marschkleies selbst, im unbedeichten und bedeichten Lande: 1. Abnagung der Oberfläche durch Eis und Wellen, 2. Austrocknung des Marschkleis. 3. Auslaugung, 4. Ausspülung der Erde, 5. Zusammenpressen der Marsch durch das Gewicht von Gebäuden, Deichen u. a. II. Höhenzuwachs. III. Hebung des MHW der Nordsee: *a*) Bezeichnung der Wasserstände, *b*) Die Tidenkurve und das MHW: 1. Annahme als Tatsachen, 2. Die Stauwirkung, 3. Die Pegelbeobachtungen, 4. Der Tidenhub. *c*) Allgemeines zu dem Ausdruck « Meeresspiegelhebungen », *d*) Der « Durchbruch » des Kanals, *e*) Unklarheit. Ergebnis. IV. Nivellements und Festpunkte. V. Das Einsinken von Teilen der Erdoberfläche. D. Schlussfolgerungen.

**Jörn Leo** - Küstengestaltung Japans nach neuesten Forschungen [*De litoribus Japonicis eorumque formatione e recentioribus investigationibus*]. Peterm. Mitt., LXXX, 9, 260. Gotha (1934). a - 815

Kurze Uebersicht der seit 1885 erschienenen Arbeiten mit besonderer Berücksichtigung derjenigen von Otsuki und Yamane (1933).

**Kazmitcheff A.** - Structure tectonique de la région Cannes-Antibes (Alpes-Maritimes) [*De structura tectonica regionis* Cannes-Antibes (*in Alpibus Maritimis*)]. C. R. Acad. Sc., CC, 73-75. Paris (1935). a - 816

Résultat de l'étude de la région qui s'étend, à l'Ouest, du bord orientale du Tanneron, jusqu'à la Brague au Nord-Est et au Nord. Elle porte les traces de deux groupes de sollicitations tectoniques ce qui est confirmé par de nombreuses structures de détail et ce qui donne droit de conclure que la région canno-antiboise se rattache étroitement, par l'intermédiaire de l'anticlinal du Bar, à la région du nord de Grasse.

**Lescuyer M.** - La fixation des dunes du Cap Bon [*De molium arenosarum stabilitate in promunturio* Bon *nomine*]. 11 fig., Bull. Direct. Gén. Agric., Comm., Colonis (Régence de Tunis), 37e an., 1er trim., 95-111. Tunis (1933). a - 817

**Machatschek Fritz** - Geo-Morphologie [*De geomorphologia*]. 69 Fig., 154 S., B. G. Teubner, Leipzig u. Berlin (1934). a - 818

Allgemeine und zusammenfassende Wiedergabe der wichtigsten Probleme der Geo-Morphologie: die endogenen und exogenen Faktoren, die Regenformen, die Landschaft im feuchten Klima, die glazialen Formen; das Relief im trocknen Klima, die Küsten und die Inseln. In dieser zweiten Ausgabe seines Werkes gibt Vf. eine Zusammenfassung neuester Theorien und der betreffenden Diskussionen derselben, die im Laufe der letzten 15 Jahre stattgefunden haben, mit besonderer Berücksichtigung der Lehmanschen Theorie der karstischen Geographie, der Theorie Schmitt Hener über die Entwicklung des Küstenreliefs und der Theorie Walter Penck's, die vom Vf. einer eingehenden Kritik unterworfen wird.

**Maze W. H.** - Pot Holes at Green Point, Broken Bay (N. S. W.) and their Significance in Coastal Uplift [*De ollis litoreis in* Green Point, *baja* Broken (*Nova* Galles *merid.*) *earumque momento quoad litorum elationem*]. a - 819

Dead pot holes situated under the sea-level which show a relatively recent movement.

**Melton F. A. & Schriever W.** - The Carolina 'Bays' Are they Meteorite Scarf? [*De baja nomine* Carolina. *Num agitur de ligulis, meteoritibus genitis ?*]. Charts, phot., Journ. of Geol., XLI, Jan.-Febr., 52-66. Chicago (1933). a - 820

The AA. believe that these 'bays' are the product of bolides, but it should be remembered that no bolide has been found in these places.

**Miyare Naomi** - Deformation of the Earth's Crust along the Pacific Coast, Japan Sea Coast and Central Zone of Japan [*De corticis terrestris deformationibus in litoribus Oceani Pacifici, maris Japonici et in Japonia centrali*]. 2 Figs., Proc. Imp. Acad., X, 5, 264-267. Tokyo (1934). a - 821

Reference to opinions of C. Tsuboi and T. Terada. Reproduction of curves showing the deformation of the earth's crust. Corrections for the vertical displacements along various sections of levelling routes. Details will be reported in No. 3, vol 12, of the Bull. Earthquake Res. Inst.

**Nagaoka Hantaro & Shirai Toshiaki** - Continental Margin as Slip-Lines. Contour of Japanese Islands [*Margines continentales deformabiles. Extrema lineamenta Insularum Japonicarum*]. 2 fig. Proc. Imp. Acad., X, 2, 73-75. Tokyo (1934). a - 822

Fourth communication on the argument. General features of the coast lines. Some explanations are given for certain parts: coast of Saurikus Shimakara and Kunisaki Peninsulae, entrance to Kagoshima Bay, Mutsu Bay and Sado I. Form of slip-lines here and there.

**Penck** - Theorie der Bewegung der Strandlinie [*De motus lineae litoreae ratione*], Naturwiss., XXIII, 9, 152. Berlin (1935). a - 823

Abhängigkeit der Strandlinie von der Bewegung des Meeresspiegels und der Küsten. Die Bewegungen des Meeresspiegels und die Bewegungen der Erdkruste. (Aus den Sitzungsber. d. Preuss. Akad. Wiss. am 21. Juni 1934).

**Polynov B. B., Romanov V. V. & Graborskaia O. A.** - On the Soils of the Adzharla Coast of the Black Sea [*De litoribus* Adzharla *in Ponto Euxino*]. (In Russ., Engl. rés.). 1 Fig., Acad. Sc. U. S. S. R., Trans. Dokushaiev Soil Inst., VIII, 4. Leningrad (1933). **a - 824**

**San Miguel de la Cámara M.** - Las rocas eruptivas y metamórficas de la Costa Brava [*Saxa ructuosa et metamorphica ad litus* Brava *nomine pertinentia*]. Mem. Acad. Cienc. y Artes, XXIII, 18/19. Barcelona (1934). **a - 825**

**Smith W. S. Tangier** - Marine Terraces on Santa Catalina Island [*De solariis marinis in Insula Sanctae Catalinae*]. 4 Figs., Amer. Journ. Sc., XXV, 146, 123-136. New Haven, Conn. (1933). **a - 826**

The author presents three lines of evidence for the existence of marine terraces on Santa Catalina Island – the notched salients, the levelled summits and the elevated embayment. In short, contrary to Lawson's conclusions (s. Lawson, A. C. « The Post-Pliocene Diastrophism of the Coast of Southern California », Bull. Dpt. Geol., Univ. Calif., 1, n. 4, 115-160, 1893), from all facts now available it would seem that instead of differentiation there has been a remarkable uniformity in the general later Pleistocene movements of all the southern California islands and the neighboring mainland coast as well.

**Solé Sabarís Lluís** - La llargada real de la Costa Catalana [*De vera longitudine litorum Catalanorum*]. 1 fig., Bull. Centre excursionista de Catalunya. Barcelona (1933). **a - 827**

Estudio de morfometrica catalana.

**Tavares R.** - Corografia de la costa del Brasil [*Corographia litoris Brasiliensis*]. Rev. Soc. de Geogr., XXXVIII. Rio de Janeiro (1933). **a - 828**

**Tesch P.** - De vorming van de Nederlandsche duinkust [*De cumulis arenosis in litoribus hollandicis. Quaestio de eorum formatione*]. Uitgave der Ned. Nat. Hist. Ver., 4. Groningen (1935). **a - 829**

General division of the Holocene in the Netherlands; discussion as to the origin of the dunes in the neighbourhood of Bergen, the penetration of the canal with the development of a breastwork, the distinction between the young and old dunes, the turf on the basis of the Holocene, the positive change of the coast level in the Holocene and finally a summary of the whole development.

**Trusheim F.** - Eine Titaneisenerz-Seife von Wangeroog [*De arena quae ferrum cum titanio commixtum continet*]. 11 Fig., Senckenbergiana, XVII, 1/2, 62-72. Frankfurt a M. (1935). **a - 830**

Bericht über eine durch eine Sturmflut auf Wangeroog entstandene Sichtung des Dünensandes, wodurch ein schwarzer, erzreicher Gürtel von mehreren Metern gebildet worden ist. Analyse der Erzschicht. Andere Beispiele dergleicher Schichtenbildung von Eisen – und Titaneiserzen – Sande.

**Tsuboi C.** - Undulatory Deformation of the Earth's Crust along the Japanese Sea Coast of Honsyû, the Main Island of Japan [*Deformatio undulatoria corticis terrestris in litore Japonico apud* Honsyû]. 1 Fig., Proc. Imp. Acad., X, 2, 76-78. Tokyo (1934). **a - 831**

Some discussions derived from differences in the results of the last two levellings along the Japanese sea coast of Honsyû. Geographical positions of the points of maximum upheaval or depression.

**Turner S. F. & Foster Margaret D.** - A Study of Salt-Water Encroachment in the Galveston Area, Texas [*De aquae salsae penetratione in sectorem* Galveston (*in* Texas)]. 3 Figs., Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part II, 432-435. Washington D. C. (1934). **a - 832**

Study of the salt-water encroachment along the line from Galveston to Houston, Texas; results of a hypothetical geological section extending from Galveston southward to the edge of the continental shelf; hypothesis of the oscillation of the sea-level within comparatively recent geologic time; results of the analysis or tests of water from 130 wells; determination of the rate and the direction of any movement of the zone of contact between fresh water and salt water.

**An.** - Adriatic Coast of Yougoslavia [*De litoribus hadriaticis ad Jougoslaviam pertinentibus*]. Geogr. Journ., LXXXIII, 4, 345. London (1934). **a - 833**

A short hint of the second volume of Mémoires – translated into French – of the Geographical Society of Beograd on the Dinaric Islands and the Adriatic littoral of Jougoslavia. The character of these Mémoires is principally geological.

## Sedimenta.

**Alcock F. J.** - Relationship of the Devonian and Silurian in Gaspé Peninsula and Northern New Brunswick [*Correlatio inter aetatem Devonianam et Silurianam in paeninsula* Gaspé *et in regione septentrionali, nomine* New Brunswick]. Trans. R. Soc. Canada, ser. 3, XXV, 4, 113-117. Ottawa (1931). **a - 834**

After a short introduction the author illustrates the Silurian succession on hand of a table giving Schuchert's summary of it in the Black Cape und Port Daniel areas on the north side of Chaleur bay, and the Lower Devonian succession at Cape Gaspé according to Clarke. He then shows a convincing evidence of the relationship of the Devonian beds to those of the Silurian in the whole of Gaspé and northern New Brunswick region, and concludes that following the deposition of the Silurian Chaleur bay series upwarping took place, the region was raised above the sea, and a period of erosion was initiated. He compares his conclusions with those of Williams regarding the same problem in the Arisaig district of Nova Scotia.

**Aubert de la Rüe E.** - La constitution géologique des îles Wallis et Futuna [*De geologica constitutione insularum* Wallis *nomine et* Futuna]. C. R. Acad. Sc., CC, 4, 328-330. Paris (193 ). **a - 835**

Etude géologique accomplie au cours d'une mission en 1934, dans le Pacifique austral, des deux petits groupes insulaires, les îles Wallis et Futuna qui n'ont encore jamais été l'objet d'une semblable étude. Une partie de ces îles est également volcanique et basaltique, tandis que l'autre est basse et madréporique. Dans l'Ouest et le Sud de Futuna on trouve une série sédimentaire contenant toute une faune de foraminifères dont quelques unes des formes ont été identifiées. L'A. démontre que les deux groupements d'îles considérés se distinguent nettement l'un de l'autre par leur formation géologique: les laves de Futuna étant plus acides et plus anciennes que celles de Wallis.

**Babet V. & Furon Raymond** - Sur les formations continentales post-hercyniennes de l'Ouest africain (Afrique occidentale et Afrique équatoriale) [*De formationibus continentalibus post-*

*hercynianis in Africae regione occidentali* (*Africa occid. et Africa aequat.*)]. 1 tabl., C. R. Acad. Sc., CCI, 1, 86-88. Paris (1935). **a - 836**

Comparaison entre les formations de l'Afrique occidentale et l'Afrique équatoriale (exposée dans un tableau). En Afrique équatoriale les formations continentales remplissant la cuvette congolaise, sont apparemment continues, en Afrique occidentale elles sont séparées par l'intercalation d'une série marine fossilifère. Nous retrouvons cette même série marine sur la côte équatoriale.

**Berry Edward W.** - Carboniferous Plants Interbedded in the Marine Section of Bolivia [*De carbonificatis plantis inter strata jacentibus sectionis marinae Bolivianae*]. 4 Figs., Amer. Journ.Sc., XXV, 145, 49-54. New Haven, Conn. (1933). **a - 837**

Comments on remainders of plants discovered on carbonaceaous shales interbedded in the limestones and immediately below the marls from which weather the enormous numbers of brachiopods for which the region of Chulpapampa near Apillapampa, Bolivia, is famous.

**Besairie Henri & Hourcq Victor** - Sur la stratigraphie du Jurassique supérieur de Madagascar [*De stratigraphia aetatis jurassicae superioris Madagascariensis*]. C. R. Acad. Sc., CCI, 3, 228-230. Paris (1935). **a - 838**

Tableau selon la classification anglaise sur les zones dont les superpositions ont été reconnues sur le terrain, dans des dépôts généralement calcaires ou gréseux, et leurs équivalences avec les niveaux classiques de l'Europe et de l'Inde.

**Chaput E.** - L'Eocène du plateau de Galatie (Anatolie Centrale) [*Aetas eocenica in* Galatia (*Anatolia Centr.*)]. C. R. Acad. Sc., CC, 9, 767-768. Paris (1935). **a - 839**

Description de la stratification et des faunes des principales assises reconnues du plateau de Galatie du Sud vers le Nord, de la base au sommet de la série éocène et qui contiennent, entre autre, des marbres à fusulinidés et des jaspes rouges à radiolaires.

**Chevalier Auguste & Furon Raymond** - Sur quelques dépôts tertiaires et quaternaires des îles du Cap Vert [*De depositis aetatis tertiariae et quaternariae ad insulas apud promunturium Viride pertinentibus*]. C. R. Acad. Sc., CCI, 3, 226-227. Paris (1935). **a - 840**

Constatation d'une émersion de certaines îles du Cap Vert au cours de la seconde moitié du Néogène entourées d'une mer où vivait une faune chaude. Liaison terrestre entre ces îles et le Sénégal, nombreux volcans sous-marins entre la côte et les îles. Fossiles et subfossiles: algues et mollusques.

**Chevalier Auguste, Joleaud Léonce & Petit Georges** - Les dépôts quaternaires de l'ancien cratère de Pedra de Lume (île de Sal, archipel du Cap-Vert) [*De quaternariae aetatis depositis veteris crateris in* Pedra de Lume *porrecti* (*in insula* Sal *nomine in archipelago apud promunturium Viride*)]. C. R. Acad. Sc., CC, 15, 1334-1335. Paris (1935). **a - 841**

Description d'un ancien cratère à l'île de Sal dont le fond, sensiblement au niveau de la mer et distant de celle-ci de 1 km., constitue une saline exploitée depuis longtemps. L'exploration de la partie Sud de ce cratère permet de penser qu'elle était occupée à une période indéterminée par un marécage avec végétation d'eau douce, lorsque l'eau de la mer l'a envahie brusquement et a tué cette végétation de marais dont les débris non fossilisés sont conservés grâce à la salure. Cette exploration a en outre permis de découvrir des empreintes végétales fossiles, des pinces de crabes et des ossements de tortues fossilisées qui démontrent qu'à l'époque quaternaire l'île de Sal, certainement plus étendue qu'aujourd'hui, devait être rattachée au continent.

**Choubert Boris** - Sur les terrains anciens du Gabon [*De antiquis terrenis ad regionem* Gabon *pertinentibus*]. C. R. Acad. Sc., CC, 2, 149-152. Paris (1935). **a - 842**

Compte rendu d'une étude des terrains sédimentaires anciens de la région comprise entre la frontière du Cameroun au Nord, Ouesso à l'Est et Franceville au Sud. Ces terrains plongent à l'Est sous les dépôts fluvio-lacustres de la cuvette congolaise et, à l'Ouest, sous les terrains marins secondaires et tertiaires de la zone côtière. L'A. établit un certain parallélisme entre la formation de ces terrains te la série de Franceville d'une part, et la série schisto-gréseuse du Bassin du Niari du Bas-Congo, d'autre part.

**Dantin Cereceda Juan** - El paludismo en el Delta del Ebro [*De paludibus in delta fluminis Hiberi*]. Bull. Soc. Geogr. Nacional, LXXIII, mayo, 348-352. Madrid (1933). **a - 843**

**Dieren (van) J. N.** - Organogene Dünenbildung. Eine geomorphologische Analyse der Dünenlandschaft der west-friesischen Insel Terschelling mit pflanzensoziologischen Methoden [*De organogenetica formatione cumulorum arena compositorum. Analysis geomorphologica cumulorum in insula* Terschelling (*Frisia occid.*) *rationum vegeto-sociologicarum auxilio*]. 11 Abb., 32 Zeichn., 2 Kart, viii-304 S. Martinus Nijhoff. 's-Gravenhage (1934). **a - 844**

Akademische Abhandlung, Amsterdam 1934. Die Entstehung der niederländischen Dünenküste vom historisch-geologischen Standpunkt. Die historische Geologie von Terschelling. Dünenbildung auf dem Strande. Entwicklung von Dünentypen; die zu der Dünenbildung beitragenden Pflanzen und deren Assoziationen.

(S. auch Tijdschr. Kon. Ned. Aardr. Gen., 1932).

**Doncieux L., Pavans de Ceccatty R. & Solignac M.** - Sur la présence de fragments de calcaire nummulitique dans certains cailloutis quaternaires de la région de Médenine [*De fragmentis calcaris nummulitici in cumulis saxosis aetatis quaternariae in regione* Médenine *nomine*]. C. R. Acad. Sc., CXCIX, 1, 78-80. Paris (1934). **a - 845**

Description de spécimens récueillis dans deux régions: l'une située au lieu dit Mestaoua, l'autre sur le bord de la route de Djorf à Médenine, dont la surface est constituée par des cailloutis qui y ont affleuré après ablation par érosion de la mince couche supérieure de grès calcaire marin qui les recouvrait. On y a découvert en abondance *Nummulites irregularis* Desh., *N. subirregularis* de la Harpe, *N. globulus* Leym et *N. atacicus* Leym. Cette faune indique très nettement l'âge Lutétien inférieur pour ces deux roches et pose le problème de l'origine des cailloutis, dont on peut conclure que la mer à Nummulites aurait vraisemblablement régné le long du flanc septentrional du vaste bombement des Jefara tunisienne et tripolitaine dont la dépression de la Syrtique constitue le périclinal oriental.

**Dresch Jean** - Essai sur l'évolution du relief dans la région prérifaine (Maroc Occidental) [*De regione praerifana* (*in Mauretania Occid.*) *Quaestiones tectonicae*]. Ill., cartes, 156 pp., Publ. Inst. Hautes-Et. Maroc., XXVI, Larose. Paris (1933). **a - 846**

La région décrite dans le présent volume s'étend dans la dépression entre le Rif et l'Atlas Moyen. L'A. en illustre le climat et l'hydrographie avec maints détails, mais s'occupe particulièrement du relief de la région, abandonnée par les ondes de la terre probablement vers la fin de l'époque Miocène, se transformant ensuite dans un lac ou une lagune, dont les rivières qui la parcourent actuellement, seraient les vestiges. L'A. décrit aussi les mouvements tectoniques qui ont transformé le relief de la zone considérée avec référence spéciale au mouvement graduel d'élévation qu'elle a subi dans le cours des siècles.

**Dyer W. S.** - Stratigraphy and Structural Geology of the Moose River Basin, Northern Ontario [*De stratigraphia et geologia in bacino fluminis* Moose, *in Ontario sept.*]. 1 Tabl., 3 pls., Trans. R. Soc. Canada, ser. 3, XXV, 4, 85-99. Ottawa (1931). **a - 847**

Account of the many new facts learned from the exploratory drilling made in order to penetrate the entire sedimentary section in the Moose River basin. The present description is based primarily on the log of a deeper drill hole « A », but notes on the geology of other parts of the Moose River are added to make the picture complete. It deals with the uppermost Pleistocene formation of the Marine (Champlainian) clay, the Long Rapids formation, the Williams Island formations, the Abitibi River formation, the Moose River formation, and the drilling in the pre-Cambrian. In the chapter dealing with structural geology the structural basins on the Mattagami and Abitibi Rivers, the anticlinal folds at Long Rapids on the Adibiti River, the folds in the vicinity of the Gypsum deposits on Moose River and the age of the folding, are considered.

**Fallot Paul & Doncieux Louis** - L'âge du Flysch de la périphérie de la chaîne calcaire du Rif [*De aetate terrenorum, quae a* Flysch *nomen habent, ad peripheriam catenae calcareae Riffanae*]. 1 carte, C. R. Acad. Sc., CC, 1, 76-78. Paris (1935). **a - 848**

Résultats d'une étude qui démontre que, malgré que l'on avait tenu pour généralement nummulitiques les terrains du Flysch de la périphérie de la chaîne calcaire du Rif, le Crétacé supérieur s'y trouve représenté, ce qui est prouvé par la présence des faunes de Foraminifères.

**Fomitschev V.** - On the Devonian Deposits of the Periphery of the Kuznetsk Basin [*De sedimentis devonicis ad peripheriam Bacini* Kuznetsk *nomine*]. (In Russ., Engl. Summ.). C. R. Acad. Sc. U. R. S. S., II, 2, 122-127. Léningrad (1934). **a - 849**

The writer advances a new hypothesis concerning the three divisions of the Devonian represented along the borders of the Kuznetzkij Basin, where also marine Upper Devonian deposits have been discovered. Description of the stratigraphy of the region under consideration.

**Gripenberg S.** - Studio dei sedimenti del Baltico Nord [*De sedimentis maris Baltici septentr.*]. Fennia. Soc. Geogr. Fenn., 60. Helsinki (1934). **a - 850**

**Harrison Matthews L.** - The Marine Deposits of the Patagonian Continental Shelf [*De sedimentis marinis ad plateam continentalem Patagonicam pertinentibus*]. 13 pls. Discovery Rep., IX, 175-206. Disc. Comm., Col. Off. London (1934). **a - 851**

**Kuenen Ph. H.** - Geology of Coral Reefs [*De geologia scopulorum coralliferorum*]. Wetensch. Uitk. Onderz. Snellius–Exped. 1929-1930, V, Part 2, Kemink en Zoon N. V. Utrecht (1934). **a - 852**

Description of the coral reefs examined. Influence of the relative variations of the sea-level on the reefs. Formations of shoals of sand, algæ etc. Opinions on the formation of atolls.

**Llarena (de) J. G.** - Ripplemarks carboniferos de Sama de Langreo (Asturias) [Ripplemarks *carbonifera apud* Sama de Langreo]. 5 lam., Boll. Soc. Espan. Hist. Nat. Madrid (1934). **a - 853**

Observaciones respecto a unos ripplemarks encontrados en la mina La Nalona situada en la vertiente izquierda del valle del Nalón, junto a Sama. Bibliografia.

**Lueders K.** - Grundsätzliches über die Beziehung zwischen Gezeitenstrom einerseits und Wandermaterial und Sediment anderseits [*Observationes fundamentales quoad reactionem inter currentias aestuosas et materias transvectas sedimentaque*]. Ann. d. Hydrogr., LXIII, 5, 189-195. Berlin (1935). **a - 854**

Nach einer kurzen Einführung und Zusammenfassung der vom Vf. im Jahre 1933 in dem Gebiete der Beziehungen zwischen Gezeitenstrom und Wandermaterial im Jadegebiet gezogenen Rückschlüsse, berichtet er über die Ergebnisse seiner Messungen, aus denen es sich ergibt, dass folgende Faktoren einen mitbestimmenden, aber in der Regel nicht messbaren Einfluss auf die oben erwähnten Beziehungen ausüben: 1. die Veränderlichkeit des Meeresbodens; 2. die Veränderlichkeit der Turbulenz des strömenden Wassers; 3. die Wellenwirkung. Ausserdem bespricht er den möglichen Einfluss der Ungleichheit der Flut- und Ebbströmgeschwindigkeitskurven auf das wandernde Material. In dem Absatz über « Gezeitenstrom und Sediment » bespricht Vf. die Ergebnisse von zwei in der Literatur bekanntgegebenen Untersuchungen (von Pratje und Bönecke) und behauptet, dass « unsere Kenntnis von den Stromverhältnissen in der Nordsee, vor allem aber unsere Kenntnis von den Beziehungen zwischen Strom und Sediment viel zu mangelhaft ist, um die schwierige Frage und die verwickeltere Beziehung zwischen Sediment und Gezeitenstrom aufdecken zu wollen ».

**MacCarthy Gerald R.** - The Rounding of Beach Sand [*De arenae rotundatione in* Atlantic Beach]. 5 figs., 5 tables, Amer. Journ. Sc., XXV, 147, 205-224. New Haven, Conn. (1933). **a - 855**

In a previous paper (Amer. J. Sc., XXII, 35–50, 1931) the author had discussed the problem of size distribution of grains in certain of the Atlantic Beach sands. At that time he made no attempt to discuss the even more puzzling question of the distribution of grain shape, and it is the purpose of this paper to discuss certain phases of this problem which have grown out of the previous work.

**Majo E.** - Le crespe di sabbia [*De arenosis sinibus rugisque*]. Riv. di Fis. Met. & Sc. Nat. VIII, 1, 3-10. Napoli (1933). **a - 856**

Morfologia del littorale Campano.

**Malmquist D.** - Zur Kenntnis der Oberkarbonischen Sedimente des Westlichen Clavering Insel, Ostgrönland [*Contributio in cognoscenda sedimenta carbonis superioris insulae* Clavering *occid.* (*in Groenlandia orient.*)]. 1 pl., 3, figs. Medd. Grönl., 94, 6, 28 pp. København (1932). **a - 857**

Beschreibung der oberkarbonischen Sedimente, welche scheinbar westlicher Herkunft sind. Die klimatischen Verhältnisse der Bildungsperiode der Sedimente sind auch geschildert, sowie auch die tektonischen Umwälzungen, welche während des Oberkarbons oder während seiner Anfangsperiode stattgefunden haben.

**Marçais Jean** - A propos d'un gisement de Trias fossilifère dans le Rif oriental [*De triassico quodam deposito fossilifero in regione* Rifana *orient.*]. C. R. Acad. Sc., CC, 8, 687-689. Paris (1935). **a - 858**

Résultats de l'étude d'un des plus importants affleurements triassiques qui sont très nombreux dans le Rif oriental, qui est particulièrement intéressant par sa masse et sa stratification régulière.

**Moorhouse F. W.** - The Recently-formed Natural Breastwork on Low Isles [*De recentiore pluteo naturali in insulis nomine* Low]. 2 pls. Rep. Great Barrier Reef Comm. IV, part I, 4, 35-36. Brisbane (1933). **a - 859**

Account of new coral accumulations forming a breastwork of the shingle bank on the east-south-east edge observed by the A. in March 1931. Some dates as to their formation.

**Neaverson F.** - The Sea–Floor Deposits; 1: General Character and Distribution [*De marini fundi sedimentis. Ium. Peculiaritates generales et distributio*]. 5 pls. Discovery Rep., IX, 295-350, Disc. Comm., Col. Off., London (1934). **a - 860**

**Niino Hirosi** - Concretions and Pseudo-Concretions dredged from the Sea-Bottom around Japan [*De concretionibus et falsis concretionibus quae everriculo a fundo marino ablatae fuerunt circum Japoniam*]. 1 table, 16 pls. Journ. Imp. Fish. Inst., XXX, 2, 117-121. Tokyo (1934). **a - 861**

1. Many kinds of concretions have been dredged from the sea bottom around the Japanese Islands. Among them those formed by apposition of materials on external side show concentric rings, some of which were formed by periodic precipitations of minerals after the concretions had been fully grown. 2. Among gravels of compact shale, sandstone, or tuff dredged from the sea bottom, there are some which show coloured rings formed by periodic precipitations of minerals from the diffusing solutions. Those rings are concentrically arranged, indifferent to the original structure of the gravels. Such gravels are often mistaken for true concretions. (Author).

**Ødum Hilmar** - Marint Interglacial paa Sjaelland, Hven, Møen og Rügen [*De marinis depositis interglacialibus in* Sjaelland]. 44, Danm. Geol. Unders. IV, 2, 10. C. A. Reitzels. København (1933). **a - 862**

**Robaux Albert** - Sur la présence du Crétacé supérieur à la base de la série du Flysch du Sud de la province de Cadix [*De aetate cretacea superiore ad basim seriei quae a* Flysch *nomen habet in regione merid. provinciae Gaditanorum*]. C. R. Acad. Sc., CC, 6, 478-480. Paris (1935). **a - 863**

Etude de la série du Flysch du Sud de la province de Cadix, de ses coupes, stratifications et Foraminifères, dont il résulte que la série du Flysch de la zone considérée est en réalité plus complète de ce que l'on avait cru jusque à présent.

**Robaux Albert** - Extension des formations du Crétacé supérieur, de l'Eocène et de l'Oligocène de la série du Flysch dans le Sud de la province de Cadix [*De formationibus aetatis cretaceae superioris, aetatis eocenicae et oligocenicae ad seriem pertinentibus quae a* Flysch *nomen habet, in regione meridionali provinciae Gaditanorum*]. 1 carte, C. R. Acad. Sc., CC., 11, 955-957. Paris (1935). **a - 864**

Compte rendu d'une étude des différents niveaux de la série du Flysch dans la province de Cadix, qui permet de rectifier les différences stratigraphiques qui semblaient résulter des travaux de D.–K. Gavala en Espagne et de M. M. Fallot et Doncieux dans le Rif Septentrional: ce sont en gros les mêmes épisodes stratigraphiques et les mêmes types lithologiques que, depuis le Sénonien jusqu'à l'Oligocène, nous retrouvons de part et d'autre du Détroit de Gibraltar.

**Rubey William W.** - Settling Velocity of Gravel, Sand, and Silt Particles [*De saxis, arena et particulis lutulentis. Agitur de eorum sedimentationis velocitate*]. 2 figs. Amer. Journ. Sc., XXV, 148, 325-338. New Haven, Conn. (1933). **a - 865**

The uniform settling velocity attained sooner or later by a falling particle depends upon the resistance offered by the settling medium. For small particles this resistance depends chiefly upon the viscosity of the fluid, but for larger particles it appears to be controlled almost entirely by impact. In the present paper the author gives a combination of Stock's law of viscous resistance and the impact formula, which represents a general equation for the settling velocities of large and small grains, contains no empirical constants, and accords very closely with published data on quartz grains but not so closely with data on fragments of galena.

**Rusconi Carlos** - Datos sobre una Capa marina de Edad Pampeana descubierta en Olivos, Provincia de Buenos Aires, con una nota sobre la Ingresion interensenadense [*Notae de sedimento quodam marino aetatis pampeanae in* Olivos *invento*]. Gaea, An. Soc. Argentina de Estud. Geogr., 29, 39. Buenos Aires (1932). **a - 866**

Depositos quaternarios marinos de la costa Atlántica, junto Rio de la Plata.

**Stetson H. C., Schalk Marshall, Taylor C. W.** - Report on Studies in Sedimentation and Sedimentary Environments [*Relatio de studiis circa sedimentationem et ambientem quo sedimentatio fit*]. Woods Hole Oceanogr. Instit. Rep. 1933, 34-35. Woods Hole, Mass. (1934). **a - 867**

Account of the winter cruises of the « Atlantis » across the continental shelf on which bottom samples were obtained; the analysis of bottom cores obtained in Arctic Basin by the « Nautilus »; direct observations on the rates of transportation and deposition by means of a sedimentation pan: importance of a detailed study to be made of the sediments of several small water bodies in which the geological history of the factors affecting sedimentation is neither long nor complicated; attempt of a study of the part played by the beach cycle in marine sedimentations, including the effects of wave action and lateral travel along the beach.

**Thorp E. M.** - Preliminary Remarks on the Calcareous Shallow-Water Marine Deposits of Florida and the Bahamas [*Observationes priores de marinis depositis calcariis in vadis Floridensibus et in insulis* Bahamas]. Journ. Sedim. Petrol., IV, 3, 111-112, La Jolla, Calif. (1934). **a - 868**

A forthcoming publication will give the results of a four–years' study of the shallow–water marine deposits found along the coasts of southeastern Florida and the Bahamas. Calcareous organic skeletons and their broken parts were found to comprise about 96 per cent of the total deposit. The remaining 4 per cent consist of quartz, magnetite, mica, volcanic glass, and a few other mineral species. Chemically precipitated aragonite is discussed, as are calcareous oolites and ellipsoidal pellets, considered as of faecal origin. One hundred and fifty mechanical analyses are interpreted in relation to sorting and distributing agencies (Author).

**Twenhofel W. H.** - Treatise on Sedimentation. Second Edition [*Tractatus de sedimentatione. Editio IIa*]. 121 ills., XXIX + 926 pp. Williams & Wilkins Co., Baltimore (1932). **a - 869**

Second and largely amplified edition of a treatise on the petrology of sedimentary rocks, without much consideration of the chemical nor petrographic aspects. It contains a large amount of material.

**Vogel Herbert D.** - Sediment-Studies at the United States Waterways Experiment Station [*De sedimentis ad Stationem Americanam pro cursibus maritimis fluviatilibusque constitutam pertinentibus*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part II, 466-468. Washington D. C. (1934). **a - 870**

Result of a sediment–movement study whose geographical scope extends from the confluence of the Missouri River and Mississippi River to the mouth of the latter at the Gulf of Mexico.

**Williams M. J. & Bocock J. B.** - Stratigraphy and Palaeontology of the Peace River Valley of British Columbia [*De stratigraphia et palaeontologia in valle fluminis* Peace *in Columbia Britannica*]. 2 tabl. Trans. R. Soc. Canada, Ser. 3, XXVI, 4, 197-224. Ottawa (1932). **a - 871**

The purpose of this paper is to give a concise summary of the stratigraphy and palaeontology of a great part of the Peace River valley including the Dominion Block. It contains the description of the following formations: Pre Cambrian, Pre–mid Devonian, Devonian, Triassic, Jurassic (?), Lower Cretaceous, etc. The fossils of the formations are described and listed. Character and distribution lithology, correlation and age of each formation are dealt with.

## Topographia submarina - Marini fundi configuratio.

**Beaugé L.** - L'emploi du sondeur sonore dans une reconnaissance rapide des bancs sous-marins [*De scandalio sonoro eiusque utilitate in banchis submarinis celeriter inspiciendis*]. Pêche Marit., Pêche Fluviale et Piscicult., XVII, 163-164. Paris (1934). **a - 872**

**Collin L.** - Les vallées sous-marines du sud du Finistère [*De vallibus submarinis in regione meridionali Finisterrae*]. Bull. Soc. d'Océanogr. de France, XV, 84 & 85, 1467-1472, 1482-1486. Paris (1935). **a - 873**

Description détaillée des vallées sous–marines des ruisseaux de Guilvinec, de Pont–l'Abbé et de l'Odet (voir cette révue n. 54, pp. 978–982, 1930). Cycles d'érosion, estuaires. Le plateau de Glénans; L'Aven et le Bélon. La Laïta.

**Correns C. W. u. a.** - Tiefseebuch. Ein Querschnitt durch die neue Tiefseeforschung in Beiträgen von. . . [*Oceani liber. Contributiones ab auctore collatae in nova studia oceanographica*]. 68 Abb., 15 Taf. Das Meer in Volkstüml. Darst., III, 144 S. Mittler u. Sohn. Berlin (1934). **a - 874**

Zusammenfassung der letzteren Ergebnisse der Tiefseeforschung mit besonderer Berücksichtigung des Atlantischen Ozeans. Der Band besteht aus den folgenden Beiträgen: W. Stahlberg, Beteiligung Deutschlands an der Tiefseeforschung. V. Schubert, Ozeanographische Instrumente und Methoden. A. Defant, Ist das Tiefseewasser unbeweglich? H. Wattenberg, Der Gehalt des Seewassers an nahrhaften Substanzen. F. Gessner, Das Leben in der Seetiefe. C. W. Correns, Studie der Tiefseesedimentation. G. Wüst, Das Golfstromproblem.

**Gorbatzky G. W.** - Geomorphological Sketch of the Western Part of the Northern Island of Novaja Zemlja Between Melkaja and Northern Sulmeneva Fjords [*Descriptio geomorphologica partis occidentalis in insula septentrionali* Novaja Zemlja *inter bajam* Melkaja *et bajam* Sulmeneva]. (In Russ., Engl. Summ.). 13 figs., 2 tabl. 1 map. Trans. Arct. Inst., XIII, 143-183. Leningrad (1934). **a - 875**

The A. describes on hand of data he has obtained n 1931 when working as a geomorphologist of the expedition of the Arctic Institute of the USSR to Novaja Zemlja, the following orographic units obtained for the region explored, i. e.: 1) submarine relief, 2) strandflat, 3) main massif, and 4) mountain heights. The genesis of the explored fjords is dealt with and the shore–line studied. In his conclusions the author formulates some considerations as to the influence of the former glacial activity on the character of the relief of the region and establishes a chronological scheme of the regressions and transgressions which have taken place at Novaja Zemlja.

**Hernandez-Pacheco E.** - Significación geológica del relieve submarino del Cantábrico [*Significatio geomorphologica quoad tectonicam submarinam regionis Cantabricae*]. Las Ciencias, a. I, 542, 546. Madrid (1934). **a - 876**

Se comenta y esplica ciertas alteraciones del relieve submarino cantábrico en formas de surcos transversales (poteras), denunciadas por los trabajos oceanograficos modernamente efectuados en aguas del golfo de Vizcaya.

**Kuenen Ph. H.** - Geological Interpretation of the Bathymetrical Results [*De bathymetria eiusque interpretatione geologica*]. Wetensch. Uitk. Onderz. Snellius-Exp. 1929-1930. I, Geology, Part I, Kemink en Zoon N. V. Utrecht (1935). **a - 877**

Short review of the soundings, charts and profiles Regional description of the sea–bottom formations. Geological conclusions to be drawn from the new chart. Discussion on a great many tectonic theories concerning the origin of the Indian Archipelago. (Brouwer, Staub, Wegener etc.). Summary of the most important results.

**Le Danois Ed. & Beaugé L.** - Sur le relief du bord du plateau continental à l'ouest de l'entrée de la Manche [*De litorea tectonica plateae continentalis in regione occidentali ad accessum Freti Britannici*]. 1 carte, C. R. Acad. Sc., CIC, 10, 550-552. Paris (1934). **a - 878**

Abrégé de travaux hydrographiques - qui ont permis l'établissement d'une carte de l'entrée à l'ouest de la Manche - réalisés à l'aide d'un appareil de sondage par le son Marti.

**Mayo Banks Claude** - Une représentation de l'aspect du fond de l'Océan Pacifique Nord [*De fundi marini repraesentatione in Oceano Pacifico Nordico*]. 2 tabl. h. t., Rev. Hydrogr., XII, 1, 31-33. Monaco, Princ. (1935). **a - 879**

Représentation basée sur les sondages (17.369 environ) exécutés par le « Ramapo » de la Marine des États-Unis.

**Nakano Masito** - On the Effect of Prevailing Winds upon the Depth of Bays [*De ventis dominantibus eorumque effectu in bajae profunditatem*]. 1 Fig., Proc. Imp. Acad., X, 6, 334–337. Tokyo (1934). **a - 880**

Method of treatment applied to Suttu Bay in Hokkaidò to study the influence of prevailing winds. Chief reasons for choosing this bay for investigation. Discussion on the results. Details will be reported in the Geogr. Magaz.

**Niino Hirosi** - On the Soundings from the Banks of Senoumi in the Suniga Bay, Japan [*De scandaliis peractis in vadis apud* Senoumi, *in baja* Suniga (*Japonia*)]. 3 Figs., 1 map., 9 tabl., 1 pl. Journ. Imp. Fish. Inst., XXIX, March., 69–91. Tokyo (1934). **a - 881**

Physiography of the Suruga Bay and its environs. Topography of the Banks of Senoumi. Soundings from the Banks of Senoumi and their surrounding area: Gravels, Sand, Organisms. Relation in geology, topography and fauna between the banks and the band bordering the Suruga Bay. Literature.

**O' Brien Morrough P. & Rindlaub Bruce D.** - The Transportation of Bed–Load by Streams [*De transvectione materiarum in fluminibus jacentium*]. 5 Figs., 2 tabl., Nat. Res. Counc. Trans. Amer. Geoph. Union, 15th Ann. Meet., Part II, 593-603. Washington D. C. (1934). a - 882

The increasing use of river- and harbour-model has accentuated its importance because of the necessity for selecting a material capable of being moved which will not at the same time form excessively large ripples.- The present paper is the result of a critical survey of available data made to ascertain whether or not a quantitative prediction of bed-movement is now possible. In his conclusions the author claims that from a survey of most of the published data on bed-movement, it is concluded that none of the equations for critical tractive force or rate of bed-movement is sufficiently reliable to be used for design.

**Patte Etienne** - A propos de récents sondages et du volcanisme dans la Mer de Chine [*De scandaliis recentiore tempore peractis deque activitate vulcanica in maribus Sinensibus*]. C. R. Soc. Géol. de France, 16 Janv., 19–20. Paris (1933). a - 883

Observations faites par l'A. sur la région de l'Ile des Cendres.

**Petterson Hans** - The « Johannes Schmidt » Ridge in the Indian Ocean [*De elatione navis « Johannes Schmidt » ex Oceano Indico*]. Nature, CXXXIV, 3375, 29. London (1934). a - 884

Proposition to give this name - of the late great Danish oceanographer - to the ridge running diagonally across the North Indian Ocean, announced in the second report of the John Murray Expedition to the Arabian Sea.

**Riel (van) P. M.** - The Bottom Configuration in Relation to the Flow of the Bottom Water [*De fundi marini configuratione pro currentia quae in profundum fluitat*]. Many maps and figs., Wetensch. Uitk. Onderz. Snellius - Exp. 1929–1930, II. Oceanography, Part 2, Chapt. II. Kemink en Zoon N. V. Utrecht (1935). a - 885

Historical review of the oceanographical research work. Construction of depth charts. Description of the sea bottom in comparison with former ideas. Depths of shelves dividing the different sea basins in connection with bottom currents. The quality of the sea water in and around the basin surrounding the shelf.

**Schmidt Hermann** - Die bionomische Einteilung der fossilen Meeresböden [*De fundis marinis fossilibus. Quaestio de partitione bionomica*]. Geol. & Paläont., XII, 38, vi + 154 S. Berlin (1935). a - 886

**Shepard Francis P.** - Canyons Off the New England Coast [*De abyssis marinis longe a litoribus Novae Angliae*]. 6 figs., 1 table. Amer. Journ. Sc., XXVII, 157, 24-36. New Haven, Conn. (1934). a - 887

Account of the discovery of submarine canyons of awe-inspiring proportions in the area extending east from a point 100 miles south by east from Cape Cod and 40 miles south of the Nantucket Lightship during the charting accomplished by the Coast Survey vessels during summers of 1931 and 1932. Distribution and character of the canyons. Origin of the canyons. Time of canyon cutting.

**Shepard Francis P.** - Detailed Surveys of Submarine Canyons [*Configuratio tectonica particularis abyssorum submarinorum*]. 1 fig., Science, LXXX, 2079, 410-411. New York (1934). a - 888

Illustration of the method used by U. S. Coast & Geodetic Survey in surveying the submarine canyons. Soundings were made at close intervals along these range lines and the exact positions obtained by taking angles to some shore object, when possible.

**Sigematu R.** - Depth of the Seas Southward of Japan Proper [*De maribus Japonicis meridionalibus eorumque altitudine*]. 6 pl., Rec. Oceanogr. Works in Japan, VI, 1, 1-13. Tokyo (1934). a - 889

Results of expeditions and investigations during these last years. Banks and submarine ridges reported.

**Sigematu Ryoiti** - On the Depth of the Sea near Kii Channel [*De maris altitudine apud canalem* Kii *nomine*]. (In Jap.). 1 pl., Suiro Yoho, XI, 365-367. Tokyo (1932). a - 890

**Smith Paul A.** - Submerged Atolls of Palawan [*De submersis atollis in* Palawan]. 1 fig., Geogr. Rev., XXV, 1, 160-161. New York (1935). a - 891

Summary of the last discoveries during the hydrographic survey of Palawan Bank and Palawan Passage, Philippine Island, of a group of submerged atolls in the vicinity of what heretofore has been called Capoas Cluster. On hand of the works of W. M. Davis (S. « The Coral Reef Problem », Amer. Geogr. Soc. Spec. Publ., n° 9, 1928) and those of Dr. Leopold Faustino of the Philippine Bureau of Science, some conclusions are drawn as to the origin and formation of submerged atolls in the region under consideration.

**Thoulet J.** - La fosse de l'Hirondelle, dans l'archipel des Açores [*De fossis quae ab hirundine nomen capiunt in insulis* Açores]. Résult. Camp. Scient. accomplies par Albert I, Prince Souverain de Monaco, fasc. LXXXIX, 359-360. Monaco (1934). a - 892

Historique des études de cette fosse située entre S. Miguel et Terceira (Açores). Quelques renseignements sur cet archipel volcanique et sur l'onde volcanique courant sur le fond.

**Thysse J. Th.** - De cerste Jaren van het Jjselmeer [*De aetate primaeva maris* Ijselmeer]. 7 fig., Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LII, 4, 481-507. Leiden (1935). a - 893

Die Trockenlegung der Zuiderzee hat sowohl für Schiffahrt und Fischerei wie für Dämme und Abflüsse und Trinkwasserversorgung sehr grosse Veränderungen mitgeführt. Vergleich zwischen der alten Zuiderzee und dem gegenwärtigen Ijselmeer: Variationen der Wasserhöhe, Gezeitenbewegungen, Strömungen, Salzgehalt und dessen Verminderung.

**Uda M.** - Hydrographical Studies Based on Simultaneous Oceanographical Surveys Made in the Japan Sea and Its Adjacent Waters During May and June, 1932 [*Adumbrationes oceanographicae simultaneae in maribus Japonicis maribusque adiacentibus, mensibus Majo et Junio 1932*]. 36 figs., Rec. Oceanogr. Works in Japan, VI, 1, 19-108. Tokyo (1934). a - 894

Investigations carried out with the collaboration of about fifty boats belonging to the fisheries authorities in Japan. The bottom configuration and the deep sea-deposits are described. The actual conditions as to distributions of water temperature, salinity, colour and transparence etc. as well as meteorological conditions of that period are shown. The general trends of currents and the nature of the water characteristic of the Japan Sea are also discussed.

**Veen (Van) Joh.** - Ondulation de sable dans la Mer du Nord [*Quaestio de undulatione arenarum in Mari Nordico*]. 12 fig. h. t. et 7 dans le t. Rev. Hydrogr., XII, 1, 22-30. Monaco, Princ. (1935). **a - 895**

Résultats d'études faites par le navire « Ocean » du Waterstaat sur les mouvements de sable.

**Wrage Werner** - Schlickwattformen im Flusswatt. Zweiter Beitrag zur Kenntnis der Morphologie des Niederelbwattes [*De vadis lutulentis in fluminum delta eorumque forma. Contributio altera in morphologiam fluminis Albis inferioris*]. 1 Taf., Ann. d. Hydrogr., LXIII, 6, 234-237. Berlin (1935). **a - 896**

(Vgl. « Ann. Hydr. », 1931, S. 233). In der vorliegenden Notiz ergänzt Vf. die von ihm bereits früher gemachten Beobachtungen und Bilder und warnt von vornherein gegen den oft gemachten Fehler Beobachtungen in den Meereswatten als selbstverständlich in den Flusswatten vorauszusetzen. An Hand von den veröffentlichten Bildern schildert er die Eigentümlichkeiten der Flusschlickwatten mit besonderer Berücksichtigung der Wattlandschaft zwischen der Haseldorfer Marsch und der Pinnaumündung.

**An.** - General Bathymetric Chart of the Oceans. Fifth Pacific Science Congress, Vancouver, June 1933 - Carte Générale Bathymétrique des Océans. V$^{\text{ème}}$ Congrès de Sciences du Pacifique. Vancouver, Juin 1933 [*Tabula generalis bathymetrica Oceanorum. Conventus V$^{\text{us}}$ Scientiarum causa ad Oceanum Pacificum pertinentium. Vancouver, mense Junio 1933*]. (In Engl. & French). Int. Hydr. Bull., VI, 107-108. (See: « Int. Hydr. Bull. », 9, 1933, p. 167 and III, 1934, p. 60). Monaco (Princ.) (1934). **a - 797**

Text of a letter sent by the General Secretary of the Fifth Pacific Science Congress to the International Hydrographic Bureau in order to communicate the text of a resolution passed by the Congress and concerned with the preparation and publication of the revised edition of the bathymetric chart referred to.

**An.** - A Profile of Shoal Water Depths by Echo Sounding [*De adumbratione vadi cuiusdam haud alti, scandalii per echum auxilio*]. Science, LXXX, 2080, 421-422. New York (1934). **a - 898**

Capt. R. S. Patton, director of the U. S. Coast & Geodetic Survey, has announced a recent improvement in the apparatus to obtain depths by echo sounding. The equipment, now being used in surveys off the Virginia coast, takes 20 soundings a second in depths from 6 to 120 feet, with an accuracy of about one inch. Some details on this instrument, known as the « Shoal Fathometer .»

# GEOGRAPHIA MARIS.

## Geographia descriptiva et oeconomica.

**Almagià Roberto & Milone Ferdinando** - Geografia Universale. Oceani. Oceania [*Geographia totius mundi. Oceani. Oceania*]. Vol. VIII, xii-777 pp, 7 cart., 12 tav. in calc. f. t., 602 fig., n. t., Tipogr. Sociale Torinese. Unione Tipografico-Editrice Torinese. Torino (1934). **a - 899**

*Gli oceani*: l'Atlantico, l'Indiano e il Pacifico nei loro caratteri fisici e come campo dell'attività umana. - *L'Oceania*: parte prima: Le caratteristiche fisiche dell'Australia; parte seconda: L'economia del continente; parte terza: Le condizioni umane; parte quarta: Le altre terre dell'Oceania.

**Angel Jacques** - La frontière adriatique [*De litoribus hadriaticis*]. Carte, L'Esprit International, VII, 1$^{\text{er}}$ Avril, 232-255. Paris (1933). **a - 900**

Étude de géographie politique.

**Aubert de La Rüe E.** - Une journée sur l'Ile Walpole [*De navigatione unius diei in insulam* Walpole]. 7 ill., Géogr., Terre-Air-Mer, LXIII, 2, 102-116. Paris (1935). **a - 901**

Description d'une visite à l'Ile Walpole appartenant à la France et dont la situation exacte est 22°38′ lat. Sud et 168°43′ long. Est, et dépendant de la Nouvelle Calédonie. Description de la forme, des côtes, de la flore de cette petite île corallienne qui est peu connue et sur laquelle il est difficile de se procurer quelques renseignements exacts.

**Baedeker Karl** - Mittelmeer [*Mare Mediterraneum*]. 89 Kart. a. T., lii + 584 S. Leipzig (1934). **a - 902**

Seewege, Hafenplätze, Landausflüge in Marokko, Algerien, Tunesien.

**Baedeker Karl** - Madeira, Kanarische Inseln. Azoren. Westküste von Marokko [*Madeira, insulae Fortunatae, insulae* Azoren, *Litus orientale Mauretaniae*]. 23 Kart., v. den. 6 a. T. 112 S., Leipzig (1934). **a - 903**

Handbuch für Reisende.

**Bernardy Amy A.** - Vie d'Italia in Levante [*De itineribus Italicis in regionibus orientalibus*]. 118 pp., Zanichelli. Bologna (1933). **a - 904**

**Chalmers Adams Harriet** - European Outpost: The Azores [*Praesidium europaeum: insulae* Azores]. 26 ills., Nat. Geogr. Magaz., LXVII, 1, 35-66. Washington D. C. (1935). **a - 905**

Description of the islands which, for their geographical position, have an important rôle in the world commerce. Their importance in future development of transcontinental aviation.

**Chataigneau Y. & Sion J.** - Méditerranée, Péninsules Méditerranéennes [*Mare Mediterraneum paeninsulaeque Mediterraneae*]. 104 tab. h. t., 150 fig., 1 carte, 363 pp., VII, Colin. Paris (193 ). **a - 906**

Italie par J. Sion. Pays Balkaniques par Y. Chataigneau.

**Cipolla Arnaldo** - Un paradiso terrestre en pleno siglo XX. La isola de Bali [*De insula* Bali *eiusque amoenitatibus*]. 14 fot., Rev. Geogr. Amer., 1, Oct., 49-60. Buenos Aires (1933). **a - 907**

**Colin Ross.** - Südamerika, die aufsteigende Welt [*Res geographicae ad Americam meridionalem pertinentes*]. 54 Abb. u. Phot., 2 Kart., 314 S. Brockhaus. Leipzig (1934). **a - 908**

Vf. beschreibt in einer Reihenfolge seine Seereisen nach Argentinien, Chili, Bolivien, Uruguay und dem südlichen Brasilien. Er schildert hauptsächlich Gegenden, welche zur Kolonisation von Europäern am meisten geeignet sind.

**Dekking G. W.** - Madagascar. – Onze Aarde, 326. Amsterdam (1934). **a - 909**

**Derveane Claude** - Les Baleares. – 24 pl. dessins, 120 pp., Occitania. Paris (1933). **a - 910**

**Edgell J. A. & Jackson A. L.** - Les îles du groupe Tristan d'Acunha [*De insulis* Tristan d'Acunha]. 1 fig., Rev. Hydrogr., XI, 2, 20-24. Monaco (1934). **a - 911**

Position corrigée d'après le levé original du « Challenger » de 1873, après un intervalle de 60 années.

**Ekman S.** - Atlantiska och Stilla Oceanen [*De oceano Atlantico et oceano Pacifico*]. Ymer, 1. Stockholm (1934). **a - 912**

**Girardin Paul** - La Méditerranée [*Mare Mediterraneum*]. Bull. mensuel Ass. Franç. Avanc. Sc., N. Sér., 99, 482-488. Paris (1932). **a - 913**

Conférence faite à la Tour Eiffel le 27 Mai 1931.

**Hettner Alfred** - Vergleichende Länderkunde 1. Band: Die Erde – Land und Meer – Bau und Hauptformen des Festlandes [*Geographia comparata. Vol. Ium. Terra: maria et continentes. Structura et formae praecipuae terrae continentalis*]. 106, Karten, 221 S., B. G. Teubner. Leipzig & Berlin (1933). **a - 914**

Im ersten Teile des Buches werden die geographische Ursächlichkeit, die Geschichte der Erde und die Erdoberfläche der Gegenwart behandelt und in einem Anhang mathematische Geographie und Kartographie. Der zweite Teil bezieht sich auf die feste Erdoberfläche, ihren allgemeinen Aufbau und dessen Beziehung zur Schwerkraft. In dem Kapitel über die Entstehung von Land und Meer sind vergleichende Ueberblicke über die Kontinente und Inseln eingeschlossen. Im Schlussabschnitt wird die Tektonik der einzelnen Erdteile an der Hand von Kartenskizzen erläutert.

**Hildebrand J. R.** - England's Sun Trap Isle of Wight [*Descriptio insulae* Wight]. 23 ills. Nat. Geogr. Mag., LXVII, 1, 1-34. Washington D. C. (1935). **a - 915**

Description of a trip to the Isle of Wight, completed by some information regarding the importance of the Island for Southampton by splitting Southampton's tides by The Needles thus providing deep water for the harbour where the world's largest ships may dock.

**Igral J. M.** - Estudio sobre la Geografia antigua del Mediterraneo [*De vetere geographia Maris Mediterranei*]. 12 grabados en el texto, 108 pp. Madrid (1934). **a - 916**

El autor se propone presentar en una serie de fasciculos los problemas más interesantes sobre temas de Geografia antigua relacionada con la Peninsula Ibérica. Este es el primer fasciculo.

**Jackson A. L.** - The Islands of the Tristan d'Acunha Group [*De insulis* Tristan d'Acunha]. Emp. Surv. Rev., July, 391-395. London (1934). **a - 917**

**Jenzel Gottlieb** - Die Insel Hainan. Eine landeskundliche Skizze, dargestellt auf Grund eigener Reisebeobachtungen und des vorhandenen Schrifttums [*De insulis* Hainan. *Adumbratio geographica ex observationibus depromptis a viatoribus rebusque geographicis*]. 6 Abb., Kart., Mitt. Geogr. Ges., XXVI, 2, 69-221. München (1933). **a - 918**

**Koenen** - The Tukang-besi Islands [*De insulis* Tukang-besi]. 1 diagr., Proc. K. Akad. Wetensch., 36. Amsterdam (1933). **a - 919**

Description of the islands situated southeast of Celebes and arranged in four rows, the first and third rows being atolls, the second and fourth bearing elevated reefs.

**Legnani D.** - Il Pacifico e i suoi traffici [*De oceano Pacifico ac mercium frequentia*]. 7 fig., Illustr. Colon., 4, 25-28. Milano (1934). **a - 920**

Demografia – Pesca moderna – L'industria giapponese – La Cina industriale – Agricoltura tradizionale nelle varie isole del Pacifico – Migrazioni.

**Lehmann F. R.** - Südseeinseln. Forschungen auf den Fidschi-Inseln. (Neue Forschung im Felde). [*Insulae ad regiones antarcticas pertinentes. Investigationes de insulis* Fidji]. Peterm. Mitt., LXXX, 307-308. Gotha (1934). **a - 921**

Historische Forschungen. Dänische Expedition für naturwissenschaftliche und völkerkundliche Forschungen.

**Lenzi Alfredo** - Le industrie ed il commercio delle Isole italiane dell'Egeo [*De industria et commercio insularum Italicarum Maris Egaei*]. 17 fig., 1/4, Rass. Econ. Colonie, a. 22, 113-140. Roma (1934). **a - 922**

Rassegna delle principali industrie esistenti nelle nostre colonie dell'Egeo. Movimenti della navigazione.

**MacLachlan Bell H.** - Bahamas: Isles of June [*Descriptio insularum* Bahamas]. Ills., 1 map., 226 pp., Williams & Norgate. London (1934). **a - 923**

Enthusiastic description of the beauty of many of the seven hundred islands forming the group, completed by a study of their story.

**März Joseph** - Die Adria-Frage [*Quaestio de Mari Hadriatico*]. 4 Abb., xxiv + 352, Beih. z. Ztg. f. Geopolitik, 11, Vowinckel Verl. Berlin-Grünewald (1933). **a - 924**

Das Adriatische Meer vom politisch - geographischen Standpunkt betrachtet.

**Mautner W.** - Holland in the Pacific [*De Hollandia in Oceano Pacifico*]. Living Age, April, 118. Boston (1934). **a - 925**

**Monfreid Henri (de)** - La poursuite du Kaïpan [*Res geographicae de mari Rubro*]. 32 pl., 286 pp., Grasset. Paris (1934). **a - 926**

Ouvrage pouvant servir à une meilleure connaissance des pays de la Mer Rouge.

**Muspratt Eric** - Greek Seas [*De maribus hellenicis*]. 4 charts,, 190 pp., Duckworth & Co, Ltd. London (1933). **a - 927**

**Novack Ernst** - Zum Adria – Problem [*Quaestio de Mari Hadriatico*]. 1 Abb., Ztschr. Dtsch. Geol. Ges., LXXXV, 10, 757-761. Berlin (1933). **a - 928**

**Obrebscki Witold** - L'Accès de la Pologne à la Mer [*De accessibus Polonis ad mare*]. 1 fig., Carte, Bull. Soc. de Géogr. et d'Études colon., LIII, 1932, $1^{er}$ sem., 5-12. Marseille (1933). **a - 929**

**Pacifique P.** - Cap Breton. – Bull. Soc. Géogr. Quebec, XXVII, Jan., 34-50. Quebec (1933). **a - 930**

**Parry R.** - Tahiti, 106 photos de . . . [*De insula* Tahiti. *Photographiae 106 ab auctore perfectae*]. 106 pl., Gallimard. Paris (1934). **a - 931**

Album de photographies.

**Philip George** - The Story of the Last Hundred Years. A Geographical Record by . . . [*Compendium geographicum historicum proximi seculi*]. Num. figs., & pls., 108 pp., G. Philip & Son. Liverpool (1934). **a - 932**

Volume issued in the occasion of the centenary of the editorial firm of G. Philip. In an appendice a list of the voyages and geographic discoveries during 1834-1934 is given, as well as the list of works published by Philip during the same period.

**Pickles Thomas** - The Southern Continents. Book III: Australia, New-Zealand, and the Pacific Islands [*Meridionales terrae continentes. Liber* $III^{us}$. *Australia, Nova Zelandia, Insulae Oceani Pacifici*]. 37 figs., 12 pls., x + 136 pp., J. M. Dent & Son. London (1934). **a - 933**

**Pozzo-Baldi Lamberto** - L'Isola di Cherso. (III. Studi Geografici sulle Terre redente). [*Chersonesus. Geographia regionum redemptarum*]. Consiglio Nazionale delle Ricerche - Comitato Nazionale per la Geografia. Num. tav. f. t., 180 pp. Tip. dell'Anonima Romana Editoriale. Anon. Rom. Edit. Roma, 1934. **a - 934**

La prima parte spiega le caratteristiche fisiche dell'Isola, con rilievi, dal lato geologico, morfologico, climatico, floristico e faunistico, di tutti quei particolari caratteri, dai quali risulta lo stretto nesso che intercorre fra l'isola e la vicina terraferma. La seconda e la terza parte trattano dell'antropogeografia dell'isola.

**Riggi Agustin Eduardo** - Las Islas Malvinas [*Insulae* Malvinas]. Fig. y cart. Rev. Geogr. Amer., II, 10, 1–10. Buenos Aires (1934). **a - 935**

**Rogers Stanley** - The Indian Ocean [*Oceanus Indianus*]. Ills., sketch-maps. 254 pp., G. G. Harrap & Co. London (1933). **a - 936**

After the preceding histories of the Atlantic and Pacific Oceans, A. deals in the present volume with the Indian Ocean, giving descriptions of its islands, early voyages in the Ocean, the East Indiamen, privateers and pirates, war days, storms, monsoons, typhoons and wrecks.

**Rueger L.** - Die baltischen Länder: Estland, Lettland und Litauen [*Regiones Balticae. Estlandia, Lettonia, Lituania*]. Handb. Reg. Geol., IV, 4, 77 S., C. Winter, Heidelberg (1934). **a - 937**

**Ryder Bernard C.** - La vie sauvage dans le Nord-Est de l'Australie. Les indigènes survivants d'une race mourante des noirs qui parlent latin. . . Une côte inhospitalière [*De horrida vita in Australia nord–orientali. Indigenae nigritae exstincturae qui latinam linguam loquuntur. . . Litus quiddam hinospitale*]. 6 fig., Géogr., Terre-Air-Mer. LXIII, 3, 219-229. Paris (1935). **a - 938**

Description de la côte nord de l'Australie que l'A. a visitée au cours d'un voyage d'exploration dans une lougre de perles de dix-sept tonnes en traversant des eaux pratiquement inexplorées. La vie de Broome, centre de l'importante production perlière près de l'Archipel des Pirates, fournissant les trois quarts de la production mondiale des perles. Le métier du pêcheur de perles. La considérable différence de niveau à marée montante variant de 36 à 38 pieds, le long de la côte nord-ouest entre Broome jusqu'au voisinage du golfe de Cambridge. La pénurie de cette côte en endroits propices à un débarquement. La vie des noirs de l'Ile Montgomery qui se distinguent par le fait que beacoup de mots de leur dialects ont une ressemblance frappante avec le latin.

**Schott Gerhard** - Geographie des Indischen und Stillen Ozeans [*De geographia Oceani Indiani et Oceani Pacifici*]. 37 Taf., 114 Abb. XX + 413. S. Ver. von C. Boysen. Hamburg (1935).

(—) S. auch Koeppen W. i. Ann. d. Hydrogr. XIII, 11, 450-452. Berlin (1935).

(—) Geographie des Atlantischen Ozeans. 115 Textfig., 27 Taf., 385 S., C. Boysen, Hamburg (1926). **a - 939**

I. Die Entdeckung der indischen und pazifischen Gewässer. II. Die Erforschung der indischen und pazifischen Gewässer. III. Namen, Grenzen, Gliederung und Grösse des Indischen und Stillen Ozeans. IV. Geologische Verhältnisse im Bereiche des Indischen und Stillen Ozeans. V. Die indischen und pazifischen Tiefen und ihre Bodenbedeckung. VI. Die meteorologischen und ozeanologischen Haupteigenschaften der Oberfläche des Indischen und Stillen Ozeans. VII. Die Haupteigenschaften der Indischen und pazifischen Tiefwasserschichten. VIII. Die natürlichen Regionen des Indischen Ozeans. IX. Die natürlichen Regionen des Stillen Ozeans. X. Das Leben im Indischen und Stillen Ozean. XI. Der Mensch auf dem Indischen und Stillen Ozean.

**Slancitajs L.** - Conditions physiques du Baltique [*De Mari Baltico eiusque condicionibus physicis*]. Geografiski Rakski, III et IV. Riga (1934). **a - 940**

**Sorre M. & Lion J.** - Méditerranée, Péninsules Méditerranéennes [*Mare Mediterraneum paeninsulaeque Mediterraneae*]. 48 tab. h. t., 234, VII, Colin. Paris (1934). **a - 941**

Généralités par les deux auteurs. Espagne et Portugal par M. Sorre.

**Souzã Guimaraes (de) Julio** - De Azoren [*De insulis* Azoren]. Onze Aarde, 259. Amsterdam (1934). **a - 942**

**Spekke A.** - La côte orientale de la Baltique et le peuple Letton [*De litoribus orientalibus Maris Baltici deque populo Lettonio*]. Le Monde Slave, R. Sér. X année, II Mai, 219–232. Paris (1933). **a - 943**

**Steers J. A. edit. by**... Scolt Head Island [*De insula* Scolt Head]. Ills. maps., xvi-234 pp., Norf. & Norw. Nat. Soc., W. Heffer & Sons, Cambridge (1934).

(—) See also: Geogr. Journ. LXXXIII, 6, 479–502. London (1934). **a - 944**

The book is an up-to-date account of the work on Scolt Head in a series of specialized papers, some of them deal with the marine fauna of the water around the island, the series of effect produced on it by water movements, the action of waves on shingle transference, the effect of tidal submergence on vegetation and so on.

**Stotz C. L.** - Coastal Lands of the Sea of Marmara [*Litora ad Marmaricum mare pertinentia*]. Journ. of Geogr., XXXII, 305–315. Chicago (1933). **a - 945**

**Termer Franz** - Hispaniola oder Haïti? [Hispaniola *vel* Haïti?]. Peterm. Mitt., LXXX, 11 334–335. Gotha (1934). **a - 946**

Erörterung über die Berechtigung der Namen Haïti, Hispaniola, Española, la Isla Española; historische und politische Berücksichtigungen.

**Tozer H. F.** - A History of Ancient Geography. Second Edition, with Additional Notes by M. Cary [*Historia veteris geographiae. Editio secunda cum notis additiciis per* M. Cary]. xxiv + 388 + xxxvi pp., Univ. Press. Cambridge (1935). **a - 947**

**Trewartha Glenn Thomas** - A Reconnaissance Geography of Japan [*De geographia Japoniae*]. Figs., tables, maps o. t. Univ. Wisconsin Stud. Soc. Sc. & Hist., XXII, 283 pp. Wisconsin (1934). **a - 948**

General study of Japan geography, including the description of its fisheries, fishing ports, coastal line, etc.

**Uyehara Yukno** - Ryukyu Islands. Japan [*De insulis* Ryukyu *in Japonia*]. Isole R. Giapp. 7 phot. charts, diagr. Econ. Geogr., IX, 395–405. Worcester (1933). **a - 949**

**Valbrune (de) G.** - Nell'arcipelago dei tifoni [*In archipelago ubi halitant venti indici*]. Marangoni. Milano (1934). **a - 950**

**Van der Wilk L.** - Bali–impressies [*Descriptio insulae* Bali]. Ill. Trop. Nederland, 1931–1932, 279–284, 291–296, 307–312. Amsterdam (1931–1932). **a - 951**

**Vivielle J.** - Les îlots des mers de Chine [*De insuletis marium Sinensium*]. 4 croquis. Le Monde Col. Ill., X, 142. Paris (1933). **a - 952**

Ilots de sable et de récifs échelonnés entre les Philippines et l'Indochine (îles de la Découverte).

**Association de Géographes Français** - Bibliographie Géographique Internationale 1933. (XLIII Bibliographie annuelle) [*Bibliographia Geographica Internationalis. A. 1933. (XLIII. Bibliographia annua)*]. Armand Colin. Paris (1934). **a - 953**

3110 fiches. Index des auteurs ou voyageurs analysés ou cités. Table des matières. Repartition comme dans le volume de la bibliographie du 1932.

**P. L.** - Zweifelhafte Inseln im nördlichen Grossen Ozean [*De insulis in Oceano Pacifico septentrionali quarum exsistentia est dubia*]. Peterm. Mitt., LXXX, 1, 4. Gotha (1934). **a - 954**

Sechs Inseln, innerhalb 16°8′ N bis 30°48′ N und 151°16′0 bis 178°56′0, deren Dasein nicht mit Sicherheit festgestellt worden ist.

**An.** - A travers les provinces maritimes. L'ancienne Acadie, l'Ile du Cap Breton, l'Ile du Prince Edouard [*Per provincias maritimas. De antiqua Acadia, insula ad promunturium* Breton *pertinente, insula quae a Principe Eduardo nomen habet*]. France–Amérique, XXV, 272, 145–154. Paris (1934). **a - 955**

## Geographia Polaris.

**Ahlmann Hans W.** - Severnaja Zemlja enligt Usjakovs Expedition 1930–1932 och « Graf Zeppelin » flygfärd 1931 [*Agitur de expeditione nomine* Usjakov *ab A. 1930 ad A. 1932 in regionem* Severnaja Zemlja. *Agitur etiam de aëronavigatione ab aëronavi* « Graf Zeppelin » *peracta, A. 1931*]. 5 fig., Ymer, 4, 379–392. Stockholm (1933). **a - 956**

**Androsova V.** - Quelques résultats des travaux de l'Institut Océanographique en 1930 et en 1932 sur la péninsule de Kanine [*De resultatibus ex operibus peractis ab Instituto Oceanographico, A. 1930 et 1932 in poeninsula* Kanin]. (En russe). Khoz. Sev., 7, 60–65. Arkhangheljsk (1934). **a - 957**

**Aubert de la Rue E.** - Les îles Kerguelen et leur intérêt scientifique (suite et fin) [*De insulis* Kerguelen *earumque momento quoad investigationes scientificas*]. 3 fig., Bull. Soc. Océan. France, 80, 1393–1397. Paris (1934). **a - 958**

Le vulcanisme des îles Kerguelen. Leur flore fossile. Phénomènes glaciaires. Flore terrestre. La flore marine de l'archipel, caractérisée par la domination d'immenses Laminaircs. La faune, représentée surtout par des animaux marins qui cherchent sur les îles un asile temporaire. Absence de poissons dans les rivières et les lacs des îles, et leur rareté le long de leurs côtes. Programme des observations météorologiques et océanographiques que l'on pourrait réaliser sur les îles Kerguelen.

**Bernatzik H. A.** - Südsee [*De maribus meridionalibus*]. 125, Bibliogr. Inst. A.-G. Leipzig (1934). **a - 959**

**Breitfuss Leonid** - Die Nordostdurchfahrt und ihre Erzwingung [*De cursu maritimo ad regiones nordorientales eiusque progressibus*]. Peterm. Mitt., LXXX, 11, 336–338. Gotha (1934). **a - 960**

Vorgeschichte. Die Transsibirische Seeroute (die ganze Passage zwischen Europa und Ostasien), die Seeroute zwischen der Bering-Strasse und der Kolyma - bzw. Lena - Mündung, der Seeverkehr mit der Wrangel-Insel sowie die Expeditionen und die einzelnen Schiffe, die diese Seeroute befahren sind. Schwierigkeiten und künftige Möglichkeiten. (S. auch Rez. in Tijdschr. Kon. Ned. Aardr. Gen., 1, 133-134, Leiden, 1935).

**Charcot Jean** - L'année polaire 1932–1933. Historique et organisation matérielle [*Polorum annus 1932–33. Conspectus historicus et ratio*]. Ann. 1935 Bur. Longit., A1–A24. Paris (1934). **a - 961**

Historique de la Première Année Polaire Internationale. L'année polaire 1932-1933: programme de la participation française. Préparation de la croisière. Croisière de 1931. Préparation et transport de la Mission en 1932: personnel scientifique et équipage du « Pourquoi-pas ? » et du « Pollux »; construction de la maison de la Mission; résumé rapide des travaux accomplis par la mission. 1933: repatriement de la Mission.

**Chiptchinskij A.** - Radiostations polaires du Département Hydrographique en 1932 [*De polaribus radiostationibus ad hydrographicam Sectionem, pertinentibus A. 1932*]. (En russe). Zap. Ghidrogr., 6, 78–88. Leningrad (1934). **a - 962**

**Dithmer E.** transl. from the Dan. by **Dithmer E. & Fleetwood F.** - The Truth About Nobile [*De aëronavigatione ab Umberto* Nobile *peracta*]. 77 pp., Williams & Norgate. London (1933). **a - 963**

**Doubravine A. I.** - Problème de la construction de navires pour les régions septentrionales [*De navibus aedificandis ad navigationes idoneis in regiones septentrionales*]. (En russe). 3 fig., 4 tabl., schémas h. t. Morsk. Sbornik, 6, 95–104. Leningrad (1934). **a - 964**

**Drezen A. K.** publié par... - Les Archives de l'URSS. La Section de Léningrad des Archives Historiques Centrales [*De archiviis ad* U. R. S. S. *pertinentibus. Sectio Leningradensis archivii historici centralis*]. (En russe). 280 pp. Lenoblizdat. Leningrad (1933). **a - 965**

Guide à travers la collection de la Section des Archives Historiques de Léningrad, muni de numéros pour chaque collection et d'indications concernant le matériel de chacune d'elles. Entre autres, le guide mentionne les matériaux sur la Deuxième Expédition au Kamtchatka du Capitaine-Commandeur Bering et l'expédition secrète du Capitaine-Lieutenant P. K. Krenitzyn (1725-1771), l'Expédition géographique et astronomique du Nord-Ouest du Capitaine I. I. Billings (1785-1794), l'Expédition dans l'Océan Glacial du Nord du Capitaine-Lieutenant M. N. Vasiliev (1819-1840), l'Expédition Hydrographique pour l'Exploration des estuaires des fleuves Obj et Enissej et d'une partie de la Mer de Kara (1844-1847), l'État-Major de la flotte de l'Océan Arctique (1917-1919).

**Ellsworth Lincoln** - To Antarctica Again. In Order to Fly Across the South Polar Continent from Deception Island to Ross Sea [*Res novae quoad regionem Antarctidem. Agitur de perficienda aëronavigatione per continentem polarem meridionalem ab insula* Deception *ad Mare nomine* Ross]. 14 photos, 1 map., Nat. Hist., July/August, 232–244. New York (1934). **a - 966**

**Evghenov N.** - Sur la navigation dans l'Arctique Soviétique (La Voie Maritime du Nord) [*De navigatione in regionibus Arcticis Sovieticis*]. (En russe). Sov. Sever, 3, 39–44. Moskva (1934). **a - 967**

**Georgi J.** - Was geht in der Antarktis vor ? [*De rebus quae in Antarctide fiunt*]. 3 Abb., Umschau, XXXIX, 11, 197–200. Frankfurt a/M. (1935). **a - 968**

Grosse Züge der Antarktis-Forschung vor Byrd und Ellsworth. Heutiger Stand unserer Kenntnis der Antarktis. Ross- und Weddell-Meer zerlegen den antarktischen Kontinent in zwei Teile. Westantarktis - terra incognita. Die heute wichtigen Forschungsziele in der Antarktis: 1. Das Ross-Meer; 2. Weddelmeer-Sektor; 3. Verbindung Weddell-Rossmeer. Die Wichtigkeit der in 1934 ausgereisten englischen Expedition unter Lt. Rymill, welche das wissenschaftlich bedeutendste Unternehmen der letzten 20 Jahre darstellt und durch gänzlich unerforschte Gebiete führt.

**Glazenap S. P.** - Catalogue des points astronomiques situés entre les limites de la République Soviétique Autonome de la Jakoutie [*Index punctorum astronomicorum in finibus Reipublicae Sovieticae autonomae, nomine* Jakutija]. (En russe). 145 pp., Troudy Sov. Iz. Prir. Ress., Acad. Sc., Leningrad (1934). **a - 969**

**Godsell Philip H.** - Arctic Trader: the Account of Twenty Years with the Hudson Bay Company [*De mercium frequentia per regiones arcticas. Relatio de operibus commercialibus viginti annos a Societate* Hudson Bay, *peractis*]. 329 pp., Putnam & Co., New York & London (1934). **a - 970**

**Gray W. Robert** - The Dutch and the Greenland Sea [*De Hollandesibus deque mari arctico*]. Naturalist, July. London (1934). **a - 971**

The A. gives an account of the Dutch whalers and their hard work during the 17th and 18th centuries in the Arctic Ocean. New land discoveries.

**Grenfell Wilfred** - The Romance of Labrador [*De rebus ad* Labrador *pertinentibus*]. Ills. xiv + 329 pp. The Macmillan Co., New York (1934). **a - 972**

**Grigoriev A. A.** - Der Nordosten der Halbinsel Kola [*De paeninsula* Kola *eiusque regione nordorientali*]. Ztschr. Ges. Erdk., 3–4. Juni, 122–145. Berlin (1933). **a - 973**

**Gromov B.** - Un maître de photoreportage arctique [*Agitur de* P. K. Novitzkij *qui considerari potest magister photographorum in regionibus arcticis*]. (En russe). 6 photos, Sov. Photo, 4/5, 8–12. Moskva (1934). **a - 974**

Résumé de l'activité du reporter-photographe P. K. Novitzkij, membre de plusieurs expéditions dans l'Antarctique; description des travaux de Novitskij, dont six sont reproduits dans le texte.

**Grotewahl M.** - Bericht über die Fortführung der Arbeiten der deutschen Polarstation im Jahre 1933 [*Relatio de operum continuatione a statione polari Germanica, A. 1933 peractarum*]. Polarforsch., 1, 1–2. Kiel (1934). **a - 975**

**Heidke P.** - Die russische Beteiligung am Zweiten Internationalen Polarjahr 1932/33 [*Secundus polorum annus internationalis (1932/33). De operibus Russicis*]. 3 Tab., Ann. d. Hydrogr., LXII, 12, 482–488. Berlin (1934). **a - 976**

A. Die russischen Hauptstationen: Untersuchungen über synoptische Meteorologie, Aerologie, Bewölkung, Erdmagnetismus, Luftelektrizität, Radiowellen, Polarlichter und Strahlung. B. Die russischen Schiffsexpeditionen: 1. Eisbrecher « Malygin », 2. Motorschooner « Beluga », 3. Eisbrecher « Russanow », 4. Eisbrecher « Lenin », 5. Eisbrecher « Sibirjakow », 6. Eisbrecher « Tajmyr », 7. Dampfer « Sowjet », 8. Expeditionsdampfer « Perseus », 9. Motorsegler « Knipowitsch », 10. Trawler « Dalnewostotschnik ».

**Hobbs William H.** - Greenland; the Advances of a Decade (1921–1931) [*De Groenlandia eiusque progressibus decennalibus* (*1921–1931*)]. Maps, figs. Pap. Michigan Acad. Sc., Arts & Lett., XVIII, 363–411. Michigan (1932). **a - 977**

Summary of the results of the explorations, surveys, and research investigations illustrated by numerous maps and diagrams showing the rapid advances in our knowledge of this continent since 1921, especially due to the study of the Greenland glacial anticyclone located above the great ice-cap. An ample bibliography is supplied for every subject.

**Ivanov I. M.** - La zone glaciale [*De regione glaciata*]. (En russe). Ill., Sevkraighiz., 116 pp., Arkhangelsk (1933). **a - 978**

Description physique et géographique du secteur polaire de l'URSS. Bibliographie.

**Ivanov I. M. & Sopine I. A.** - L'Ile Kolgouev [*De insula* Kolguev]. (En russe). Zemlevedenije (Sc. de la Terre), XXV, 4, 357–362. Leningrad (1933). **a - 979**

**Izmajlov N. F.** - L'expédition Arkhangeljsk-Lena, 1933 [*De navigatione ab* Arkhangeljsk *ad flumen* Lena *A. 1933*]. (En russe). 3 fig., Vodn. Transp., 3, 36–37. Leningrad–Moskva (1934). **a - 980**

**Jelstrup Hans** - Grönlands Drift [*De Groenlandia eiusque declinatione*]. Peterm. Mitt., LXXX, 5, 140. Gotha (1934). **a - 981**

Verteidigende Bemerkungen zu den Ausführungen von Prof. K. Wegener in Peterm. Mitt., 11/12, 1933.

**Kaljnitzkij J.** - Les feux dans l'Arctique [*Agitur de quadam navigatione in regiones Arcticas*]. (En russe). 168 pp., Ed. « Liter. & Isk. ». Kharjkov–Kiev (1934). **a - 982**

Description populaire et artistique du voyage du brise-glace « Krassin » au Cap Zhelanija accompli au cours de l'hiver 1933.

**Koloskov P. I.** - Description climatologique de la Péninsule de Kamtchatka [*De paeninsula* Kamtschatka. *Descriptio climatologica*]. (En russe). Fig. & tabl., 13 cartes. Izv. Daljnevost. Gheofis. Inst. (Bull. Inst. Géophysique Extr.–Orient), II (IX) 119–145. Vladivostok (1932). **a - 983**

Le matériel dont l'A. s'est servi pour le présent ouvrage, a été recueilli surtout au cours d'observations météorologiques exécutées depuis 1912 jusqu'à 1932 par l'Observatoire Géophysique Central et par l'expédition au Kamtchatka de Rjabouchinskij. Malheureusement, 8 stations seulement ont été faites, ce qui représente un chiffre très exiguë par rapport à l'énorme extension du territoire de la Péninsule. Toutefois l'A. a pu arriver à des conclusions intéressantes concernant la température du sol du Kamtchatka et des eaux qui le baignent. En outre des observations très intéressantes ont été faites sur la distribution de la pression atmosphérique, les mouvements des masses d'air, la direction et la violence des vents.

**Lavrov A.** - La lutte pour la Voie Maritime du Nord [*De cursu maritimo ad regiones septentrionales*]. (En russe). 2 fig., Morsk. Sbornik, 5, 111–120. Leningrad (1934). **a - 984**

**Lavrov A.** - 20–ème anniversaire de la découverte de la Severnaja Zemlja [*De regione* Severnaja Zemlja *XX° recurrente anno ab inventione*]. (En russe) 5 fig., Vestn. Znan., 4, 222–226. Leningrad (1934). **a - 985**

**Migaljskij K.** - Conditions de navigation dans le Nord [*De navigatione in regionibus septentrionalibus*]. (En russe). Morsk. Sbornik, 6, 65–71. Leningrad (1934). **a - 986**

**Mirotvortzev K. N.** - Récits de géographie physique de la région Nord–Orientale [*De geographia physica in regione nord–orientali*]. (En russe). Ill. & tabl., 12 cartes, 160 pp., Oghiz, Irkoutsk (1933). **a - 987**

En dehors de la description des caractéristiques physico-géographiques de l'intérieur de la région considérée, l'A. donne une illustration plutôt complète de son littoral septentrional (Mer de Kara, Mer des Frères Laptev). L'ouvrage est complété par une liste bibliographique contenant 219 titres.

**Mosby H** - The Waters of the Atlantic Antarctic Ocean [*Aquae Oceani Atlantici in regionibus Antarcticis*]. Sc. Res. Norw. Antarct. Exped., 1927–1928. 11. Oslo (1934). **a - 988**

**Nevermann H.** - Admiralitäts–Inseln (Ergebnisse der Südsee–Expedition 1908–1910. 2 A. B. 3) [*De insulis quarum nomen germanice* Admiralitäts–Inseln. *Resultatus e navigatione ad mare australe A. 1908/1910*]. 24 Taf. 399 S., L. Friedrichsen & Co. Hamburg (1934). **a - 989**

**Obroutchev S.** - En avion dans l'Arctique Orientale [*De aëronavigatione per Arctidem orientalem peractam*]. (En russe). Photos, 1 carte h. t., 184 pp. « Poljarn. Bibl. », Ed. Inst. Arct. URSS. Leningrad (1934). **a - 990**

**Ostrovskij B. G.** - La Mer de Kara [*De mari* Kara *nomine*]. (En russe). Photos, 1 carte h. t., 80 pp., Sevkrajghiz, Arkhangheljsk (1934). **a - 991**

**Ourvantzev N.** - Le rôle de la Severnaja Zemlja et le problème du Passage du Nord–Ouest [*De regione* Severnaja Zemlia *eiusque momento quoad transitum nord–occidentalem*]. (En russe). Fig., 1 carte. Vodn. Transp., 2/3, 28–29. Moskva-Leningrad (1934). **a - 992**

**Petrov J.** - Polar Navigation of the Ice-Breaker « Yermak » in 1934 [*Navigatio ad polum navis glaciei ruptricis* « Yermak », *A. 1934*]. (In Russ. & Engl.). Bull. Arct. Inst., 1/2, 4–6, 43–44. Leningrad (1935). **a - 993**

Aim and scope of the expedition sent on the ice-breaker « Yermak » under the leadership of P. V. Orlovskij by the Chief Administration of the Northern Sea Route to the Arctic regions on June 30, 1934, from Leningrad. Observations on ice conditions in the Kara Sea; conveying of the vessels of the « Kara Expedition »; discovery of a new island named Kirov Island, whose approximate location has been determined as 77°32′ N lat., 91°55′ long. E., and of another island remained unnamed, whose coordinates are 77°00′ N. lat., and 89°42′ E. long.; passage of the ice-breaker in the Barents Sea.

**Pineghin N. V.** - Soixante–dix jours de lutte pour la vie [*De fortunosa quadam navigatione 70ª dies peracta*]. (En russe). 88 pp., Sevkarjghiz., Arkhanghelsk (1933). **a - 994**

Description de l'expédition de Brussilov sur la base du journal pilote de l'expédition de V. Aljbanov.

**Popov S.** - Le problème du Passage Nord-Ouest [*Quaestio de transitu nord-occidentali*]. (En russe). 1 carte h. t. Zap. Gidrogr., 6, 5-20. Leningrad (1933). **a - 995**

**Poustovalov I.** - Les Iles Golfstream [*De insulis* Golfstream]. (En russe). 1 tabl. Bull. Arct. Inst., 2, 68-70. Leningrad (1934). **a - 996**

Après avoir fait observer que sur la carte existante de la Novaja Zemlja à l'échelle 1/1000000 sont reportées deux îles dans la région du Cap Sakharov, sous le nom des Iles Golfstream ou Issakov, et que par un étrange jeu du sort ces deux îles, tout en se trouvant dans une des régions les mieux explorées de l'Arctique, ne sont cependant pas indiquées à leur point juste, mais là, où en réalité roulent les ondes de l'océan, l'A. communique la position exacte des deux îles qui a été déterminée par l'expédition de la Novaja Zemlja au cours de l'été 1933, et donne une brève description des conditions géologiques et morphologiques des deux îles en question.

**Rittikh P. A.** - Le travail des hollandais sur la station de Reykiavik (Islande) pendant la II-ème Année Polaire Internationale [*De operibus ab Hollandesibus peractis in* Reykiavik (*Islandia*) *secundo perdurante anno internationali polorum*]. (En russe). Tabl., Meteor. Vestn., 11/12, 357-358. Leningrad (1933). **a - 997**

**Roussinova I.** - Nouvelles Stations Polaires dans l'Arctique [*De stationibus novis in regione Arctica constitutis*]. (En russe). Bull. Arct. Inst., 10, 374. Leningrad (1934). **a - 998**

Information concernant l'établissement de 17 nouvelles stations polaires et points d'observations dans la région arctique de l'URSS chargées de la transmission du bulletin météorologique au Bureau Météorologique Arctique Central et aux navires en navigation.

**Rudolphi H.** - Polgebiete (Neue Forschung im Felde) [*De regionibus polo proximis. Investigationes novae*]. Peterm. Mitt., LXXX, 1, 21. Gotha (1934). **a - 999**

Russische geologische Expedition nach Nowaja Semlja. Ost-Polexpedition der All-Union-Association der russischen Luftflotte 1931/32. Expedition des Arktischen Instituts nach der unteren Petschora. Russische Eisbrecherfahrten. Norwegische Forschung auf Grönland.

**Rudolphi H.** - Nordamerika (Neue Forschung im Felde) [*De America septentrionali* (*Investigationes novae. Navigationes*)]. Peterm. Mitt., LXXX, 4, 123. Gotha (1934). **a - 1000**

Dänisch-amerikanische Expedition nach Alaska 1933. Vermessungsfahrten nach den Aleuten 1933.

**Rudolphi H.** - Polgebiete (Neue Forschung im Felde) [*De regionibus polo proximis* (*Investigationes novae. Navigationes*)]. Peterm. Mitt. LXXX, 4, 123. Gotha (1934). **a - 1001**

Norwegische Expedition nach Ostgrönland 1933. Bartletts Expedition in den amerikanisch-arktischen Archipel. Dritte antarktische Reise der « Discovery II ».

**Rymill J. R.** - The Tugtilik (Lake Fjord) Country, East Greenland [*De regione nomine* Tugtilik *ad Groenlandiam Orientalem pertinente*]. 1 sketch-map, 11 photos. Geogr. Journ., LXXXIII 5, 364-380. London (1934). **a - 1002**

A paper read at the Evening meeting of the R. Geographical Society, London, on 18 December 1933, containing the account of an expedition sent out in June 1932 in order to continue the work which Watkins had begun on the British Arctic Air Route Expedition; the scope of the expedition has been to explore the place which Watkins thought would be most suitable for an air port on a Europe-America air line, i. e. the Lake-fjord, and to undertake soundings in the Lake Fjord and Nigertusok. The paper is completed by two appendices: I. Meteorology, by Quintin Riley, and II. Preliminary Account of the Natural History Work, by F. Spencer Chapman followed by a summary of the discussion, which had taken place after the reading of the paper.

**Salistchev K. A.** - Quelques informations sur le Groenland [*Notitiae de Groenlandia*]. (En russe). 1 tabl., 1 carte. Bull. Arct. Inst., 11/12, 415-416. Leningrad (1934). **a - 1003**

Sur la base de données contenues dans le rapport de l'Administration du Groenland et dans quelques autres publications danoises, l'A. communique des informations sur la population de cette île, sur son réseau radiographique et sur la dernière carte du Groenland, pour l'élaboration de laquelle les matériaux les plus récents et, en particulier, ceux des dernières expéditions de Lauge Koch, ont été utilisés. La carte est reproduite dans le texte.

**Samoilovitch R. L.** - Spitzbergen. 1 carte, Boljch. Sov. Entzikl. (Grande Encycl. Sov.), 62, 642-644. Gosizdat, Moskva (1933). **a - 1004**

**Samoilovitch R. L.** - La lutte pour l'Arctique Soviétique [*De explorandis regionibus arcticis ad Rempublicam Sovieticam pertinentibus*]. (En russe). 3 fig., Naoutchn. Len. k XVII Sjezdou VKP, 173-178. Leningrad (1934). **a - 1005**

**Samoilovitch R. L.** - Dans les glaces de l'Arctique. Le voyage du « Krassin » en été 1928. 3-ème Ed. revue & ampl. [*Inter glacies regionum arcticarum. Navigatio navis* « Krassin », *aestate 1928. Editio III*ª *recognita et amplificata*]. (En russe). Portr., aut., nombr., ill., 4 cartes h. t., 340 pp., Vses. Arkt. Inst. Leningrad (1934). **a - 1006**

**Samoilovitch R. L.** - Les succès de l'exploration des régions arctiques soviétiques [*De resultatibus explorationum sovieticarum in regiones arcticas*]. (En russe). Troudy 1º Vsess. Gheogr. Sjezda (11-18 avr. 1933). Ed. Soc. Gheogr. Etat, 2, 76-85. Leningrad (1934). **a - 1007**

**Schmidt O. J.** - La mise en valeur de la Voie Nord-Orientale [*De valore tribuendo transitui nord-orientali*]. (En russe). Troudy 1º Vsess. Gheogr. Sjezda (11-18 avr. 1933), Izd. Goss. Gheogr. Obstch., 2, 116-122. Leningrad (1934). **a - 1008**

**Schnejderov V.** - La croisière du « Sibirjakov » [*De navigatione navis* « Sibirjakov »]. (En russe). 1 carte, 208 pp., Oghiz-Molod. Gvard., Moskva (1933). **a - 1009**

**Sergheev M. A.** - La région du Kamtchatka [*De regione nomine* Kamschatka]. (En russe). 2 cartes h. t., 91 pp., « Sov. Asija ». Moskva (1934). **a - 1010**

Bibliographie (31 titres).

**Singer Max** - L'océan reveillé. L'expédition Nord-Orientale dans la région de Kolyma en 1932-1933 [*De navigatione in regionem* Kolyma, *A. 1932-33*]. (En russe). 7 phot. Naschi Dostizh., 4, 150-158. Moskva (1934). **a - 1011**

**Skrylj I.** - La région d'Anadyrj–Tchoukhotsk [*De regione* Anadyrj–Tschoukhotsk]. (En russe). 1 carte. Vestn. Znan., 8, 493–494. Leningrad (1934). **a - 1012**

Résumé de l'exploration de la région, sa description géologique.

**Solovjov M. M.** - Ber sur la Novaja Zemlja [*De navigatione a* Ber *peracta in regionem* Novaja Zemlja]. (En russe). 7 fig., 51 pp. Ed. Acad. Sc. URSS. Leningrad (1934).

(—) Voir extr. dans Vestn. Ak. Nauk., V, 38–47. Leningrad (1934). **a - 1013**

Description du voyage de l'académicien Ber à la Novaja Zemlja.

**Stagg J. M.** - British Polar Year Expedition to Fort Rae, N. W. Canada [*De britannica navigatione ad* Fort Rae, N. W. (*in Canadensi regione*), *anno polorum perdurante*]. 4 pls. Quart. Journ. R. Met. Soc., LX, 256, 253–263. London (1934). **a - 1014**

**Steinert Hermann** - Ost–Grönlands wirtschaftliche Bedeutung [*De Groenlandia orientali eiusque momento oeconomico*]. Geogr. Zeitschr., 6, 352-357. Leipzig (1935). **a - 1015**

**Tchaoussov V.** - Exploration des mers [*De marium exploratione*]. (En russe). 3 fig. Nachi Dostizh., 3, 162–166. Moskva (1934). **a - 1016**

L'A. concentre son attention surtout sur l'exploration des mers polaires et les expéditions dans l'Arctique.

**Trojanovskij M. S.** - Avec l'appareil cinématographique sur le « Tchéljuskine » [*De apparatu cinematographico in navi* « Tcheljuskine » *eiusque utilitate*]. (En russe). 6 phot. Sov. Kino, 4, 12–17. Moskva (1934). **a - 1017**

**Wiese W.** - Découverte d'une nouvelle île dans la Mer de Beaufort [*De inventa insula ad mare* Beaufort *nomine pertinente*]. (En russe). Bull. Arct. Inst., 2, 81. Leningrad (1934). **a - 1018**

Quelques indications sur la nouvelle île, dont la découverte a été annoncée par Vilhjalmur Stefansson dans le numéro de Janvier de la « Geographical Review ».

**Wiese W.** - Histoire de l'exploration de l'Arctique Soviétique. Les mers de Barents et de Kara. 2-ème Edit. Compl. [*Historia explorationum in regionem arcticam ad Rempublicam Sovieticam pertinentem susceptarum. De maribus quorum nomina* Barents *et* Kara]. (En russe). Ill., 1 carte h. t., 209 pp., Sevkrajghiz. Arkhangheljsk (1934). **a - 1019**

Deuxième édition revue et complétée de l'histoire de l'exploration et des dernières découvertes faites dans les mers de Barents et de Kara par différentes expéditions soviétiques.

**E. T.** - La circumnavigation de la Terre de François–Joseph [*De circumnavigata terra Francisci Josephi*]. (En russe). Meteor. Vestn., 8/10, 232–273. Leningrad (1933). **a - 1020**

Compte-rendu de l'expédition du navire « Knipovitch » en 1932.

**G. K.** - L'expédition japonaise dans l'Antarctique en 1911–1912 [*De navigatione in regiones antarcticas a Japoniis peracta, A. 1911–12*]. (En russe). Izv. Gos. Gheogr. Obstsch., LXVI, 2, 313–315. Leningrad (1934). **a - 1021**

**M. A. D.** - Explorations polaires au Danemark, en Norvège, au Canada et en Allemagne [*De explorationibus in Dania, Norvegia, Canadensi regione et Germania*]. (En russe). Bull. Arct. Inst., 11/12, 419–421. Leningrad (1934). **a - 1022**

Bref compte-rendu de l'activité des instituts et des organisations existant dans les quatre Pays mentionnés dans le titre et qui s'occupent tout particulièrement des régions polaires et de leur exploration.

**An.** - Polar Stations of URSS [*De stationibus polo proximis constitutis ab* U. R. S. S.]. (In Russ. & Engl.). Bull. Arct. Inst., 2, 75–76, 110. Leningrad (1934). **a - 1023**

Work performed by the Observatory in Calm Bay (Tikhaja) at Hooker Island and at Cape Uelen. Information on the organization of a station on Kotelny Island.

**An.** - Cape Severnyj – Cape Schmidt [*Promunturium* Severnyj – *Promunturium* Schmidt]. (In Russ. & Engl.). Bull. Arct. Inst., 6/7, 267 & 294. Leningrad (1934). **a - 1024**

Brief note informing that by order of the USSR Government the name of Cape Severnyj has been changed into Cape Schmidt.

**An.** - On the Development of the Northern Sea Route and Northern Economics [*De cursu maritimo nordico ac regionum septentrionalium oeconomia*]. (In Russ. & Engl.). Bull. Arct. Inst., 8/9, 297–298, 333–335. Leningrad (1934). **a - 1025**

Account on legislative measures taken by the Council of People's Commissaries of the USSR together with the Central Committee of the Communist party in order to provide a considerable strengthening of the financial and technical basis of the GUSMP (Chief Administration of the Northern Sea Route); Enlargement of the functions of the GUSMP, to which all researches, prospecting and exploitation of the natural resources in Soviet Arctic have been entrusted by the recent Decrees of the Government. Summary of the program of work foreseen.

**An.** - List of Polar Stations of the GUSMP (Chief Administration of the Northern Sea Route) working in 1934 [*Index stationum polo proximarum ad* GUSMP (*idest ad Centralem Administrationem pro cursu maritimo nordico*) *pertinentium pro A. 1934*]. (In Russ. & Engl.). Bull. Arct. Inst., 8/9, 304–305. eningrad (1934). **a - 1026**

List of 31 Stations with indication of the localities where they are situated.

**An.** - Nouvelle dénomination du Territoire de la Reine Astrid [*Denominatio nova territorii cuius nomen* Reine Astrid]. (En russe). Bull. Arct. Inst., 8/9, 321. Leningrad (1934). **a - 1027**

Le Gouvernement norvégien a décidé d'appeler désormais le territoire découvert par l'expédition norvégienne entre 83° et 86° W et appelé tout d'abord « Territoire de la Reine Astrid », « Territoire du Roi Léopold et de la Reine Astrid » en souvenir des importantes explorations des terres polaires dûes aux belges.

**An.** - Stations polaires de l'URSS [*De stationibus polo proximis ad* URSS *pertinentibus*]. (En russe). Bull. Arct. Inst., 10, 11/12, 374–375, 412–413. Leningrad (1934). **a - 1028**

Activité de la station sur l'île Oujedinienije, Cap Tschéljouskine, Nordwick et Cap Sterlegov, envoi de radiophares à l'Ile de Dickson, retour du personnel des stations de l'Ile Dickson et de l'Ile Vrangel.

**An.** - La Terre d'Andreev [*De terra* Andreev nomine]. (En russe). Bull. Arct. Inst., 11/12, 413. Leningrad (1934). **a - 1029**

Communiqué du chef de l'expédition du brise-glace « Krassin », selon lequel aucune trace de la Terre d'Andreev existe à l'ouest de l'Ile Vrangel jusqu'au méridien du Cape Chélagskij, ainsi qu'au nord du 72ème parallèle. On peut affirmer que dans la zone qui s'étend jusqu'à 100 milles Nord de l'Ile Vrangel il n'y a aucune autre terre.

**An.** - Dixième anniversaire de l'aviation soviétique dans l'Arctique [*De aëronavigationibus per regiones Arcticas a Sovietis susceptis decimo recurrente anno a prima aëronavigatione*]. (En russe). Bull. Arct. Inst., 11/12, 413–414. Leningrad (1934). **a - 1030**

Courte note sur le dixième anniversaire de l'aviation soviétique en Arctique et sur le travail qu'elle a accompli dans l'extrême Nord.

**An.** - British Graham Land Expedition [*De britannica navigatione ad terram* Graham *nomine*]. Geogr. Journ. LXXXIV, 1, 75. London (1934). **a - 1031**

Corrections of the article, printed in « Geogr. Journ. », LXXXIII, 6, pp. 512-515.

**An.** - Britische Gebietsansprüche in der Antarktis [*Quae sibi Britannia arrogat quoad regiones antarcticas*]. Geogr. Zeitschr., 4, 245. Leipzig (1933). **a - 1032**

**An.** - Flugzeugexpedition von Prof. Obrutschew ins Tschuktschen–Anadyr–Gebiet [*De aeronavigatione in regionem* Tschukhtskaja–Anadyrj *a Prof.* Obrutschev *peracta*]. Geogr. Zeitschr., 8, 486. Leipzig (1933). **a - 1033**

**An.** - « Poljarnaja Biblioteka » (Bibliothèque Polaire) [*Bibliotheca polaris*]. (En russe). Meteor. Vestn., 11/12, 354. Leningrad (1933). **a - 1034**

Note bibliographique contenant la liste des publications qui seront éditées sous les auspices de l'Institut Arctique de l'URSS.

**An.** - Les îles de la Mer de Kara [*De insulis ad mare* Kara *nomine pertinentibus*]. (En russe). 2 fig. Naschi Dostizhenija, 2, 110. Leningrad (1934). **a - 1035**

**An.** - Les explorations soviétiques dans l'Arctique [*De explorationibus regionum arcticarum a Sovietis peractis*]. Rev. Econ. URSS, 7, 168. Paris (1934). **a - 1036**

**An.** - Exploration de l'Arctique en 1934 [*De exploratis regionibus arcticis, A. 1934*]. (En russe). Vestn. Znan., 8, 536–537. Leningrad (1934). **a - 1037**

Résumé des principaux résultats de l'exploration de l'Arctique par les expéditions soviétiques.

## Relevationes hydrographicae (geodeticae, topographicae, bathymetricae) – Instrumenta hydrographica et bathymetrica – Naves hydrographicae.

**Adamovitch N.** - Coefficient d'expansion et longueur des copies en platine– iridium du mètre international [*Agitur de coefficiente quoad expansionem et longitudinem in reproductionibus platino–iridiatis mensurae metricae internationalis*]. (En russe). 1 tabl., Gheodesist, 7/8, 28-31. Moskva (1933). **a - 1038**

Résultats d'une étude basée sur la mensuration des 30 copies existantes du mètre international fabriquées à peu près en 1880 sous le contrôle direct du Comité International des Poids et des Mesures avec le même alliage fourni par la maison anglaise John Mattey & Co. dont il résulte que c'est plutôt les mètres-étalons qui se sont allongés, et non les copies qui en ont été faites, avec un alliage de platine et d'iridium.

**Adams Oscar S.** - Plane Coordinate–Systems for Individual States [*Systhemata coordinatarum planarum pro singulis Statibus*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 36-38. Washington D. C. (1934). **a - 1039**

Account of a quite extensive study performed by the author and others in the Coast and Geodetic Survey in order to elaborate a plane coordinate-system which should be as extensive as possible, so that rather large regions could be included in public works surveys, publicroads surveys, and others of like nature. This plane coordinate-system is based upon one of the conformal projections. The intent is to compute the $x$ - and $y$ - coordinates of all triangulation-stations on an appropriate grid within each of the states.

**Adams Oscar S. & Claire Charles N.** - Manual of Plane–Coordinate Computation [*Liber manualis ad coordinatas planas calculandas*]. 65 figs. U. S. Dpt. Comm., Coast & Geod. Surv. Spec. Publ. n. 193, 1-271. Washington D. C. (1935). **a - 1040**

Introduction. Nature of surveying. Geodetic surveying. More restricted class of surveying. Need of plane systems covering greater areas. Choice of plane systems. Formulas for Lambert projection and for the transverse Mercator projection. List of States with their respective grids. Explanation of plane or grid azimuth. Computing plane coordinates on the Lambert projection. Applications of the grids to computation. Computation of a first-order traverse in North Carolina. Scale factors. Adjustment of second-order triangulation by variation of coordinates. Adjustment of a quadrilateral with one side fixed entirely and with an opposite side fixed in length. Two short traverse adjustments each beginning and ending on the same control line. Adjustment of a traverse that lies partly in one system of coordinates and partly in a second system. Adjustment of a small arc of triangulation in a overlap section of two systems. Index.

**Belavine A.** - Chambre de reproduction photographique avec focalisation automatique [*De photocamera pro reproductione, focalisatione praedita automatica*]. (En russe). 6 fig. Gheodesist, 3/4, 66-71. Moskva (1933). **a - 1041**

**Bemporad Giulio** - Sulla scelta delle stelle nelle determinazioni di tempo [*De stellis eligendis in temporis determinationibus*]. Mem. Soc. Astr. It., III, 3, 229-233. Milano (1934). **a - 1042**

Si completa e si generalizza una ricerca del prof. Th. Niethammer circa la più conveniente scelta delle stelle orarie per una determinazione di tempo; si dimostra in particolare che, non essendo praticamente possibile osservare stelle aventi tutte una comune declinazione prefissata, conviene che la distanza zenitale media sia alquanto maggiore di quella trovata dal Niethammer.

**Berezekine V.** - Cartes hydrologiques comme indicateurs de terres non encore découvertes [*De tabulis hydrologicis quibus utitur ad inveniendas terras incognitas*]. (En russe). 1 fig. Zap. Ghidrol., 6, 100-102. Leningrad (1933). **a - 1043**

Observations hydrologiques considérées comme point de départ pour l'hypothèse de l'existence d'un haut-fond ou d'une terre dans la région entre 81°-86° long. Ouest et au-delà de 80° lat. Nord. Extrait des travaux de l'expédition hydrologique du Tajmyr.

**Bowie William & Avers H. G.** - Descriptions of Bench Marks [*De libellationibus*]. Tables. U. S. Dpt. Comm. Coast & Geod. Surv., 162-328. Washington D. C. (1933). **a - 1044**

Reprinted from Special Publication n° 18. Fourth general adjustment of the precise level net in the United States and the resulting standard elevations.

**Breed C. B. & Hosmer G. L.** - The Principles and Practice of Surveying. Vol. 2. Higher Surveying [*De fundamentis et practica quoad topographicam adumbrationem. Volumen secundum. Topographia maximae exactitudinis*]. xix + 603 pp. Chapman & Hall. London (1934). **a - 1045**

**Brunel A.** - Mission hydrographique de l'Indo–Chine (du 15 Juin 1932 au 6 Juin 1933) [*De missione hydrographica in regionem Indo–Sinensem a die 15 mensis Junii 1932 ad diem 9 mensis Junii 1933*]. Fig. cart. tabl. Ann. Hydrogr. XIII, Ser. III, 111-138. Paris (1934). **a - 1046**

Composition de la mission. Travaux exécutés. Triangulation. Marées. Sondes. Topographie. Coordonnées des points. Région d'Hon-Me, du Trident. Chenal de Campha. Rade de Tien-Yen. Ile Lo-Shu-Shan. Rivière de Saïgon. Bouches du Mékong.

**Cassinis Gino** - La Fotogrammetria aerea e la sua importanza tecnica ed economica [*De photogrammetria aëria eiusque momento technico et œconomico*]. Ric. Scient., II, 1/2, 3-7. Roma (1934). **a - 1047**

Si accenna ai molteplici campi di impiego della Fotogrammetria sia terrestre che aerea: in particolare ai rilevamenti topografici.

**Chandon Edmée, Bouty Edouard & Gougenheim André** - Déterminations horaires obtenues à l'aide d'un instrument des hauteurs égales à prisme et à micromètre impersonnel [*Agitur de horariis determinationibus quae obtentae sunt instrumenti auxilio altitudinum aequalium metatorii, prismate praediti et micrometro impersonali*]. C. R. Acad. Sc., CIC, 3, 184-186. Paris (1934). **a - 1048**

Les AA. ont mis à l'épreuve, à l'Observatoire de Paris, durant quelques soirées de beau temps, un instrument des hauteurs égales de Jubin (modèle géodésique), muni d'un micromètre auto-enregistreur permettant de rendre impersonnelles les observations d'étoiles, construit par M. E. Bouty.

**Chandon E. & Gougenheim A.** - Les instruments pour l'observation des hauteurs égales en astronomie. (Méthode de Gauss généralisée) [*De instrumentis astronomicis ad observandas aequales altitudines*]. 43 fig. et tabl. h. t. Rev. Hydrogr. XII, 1, 45–121. Monaco. Princ. (1935). **a - 1049**

Important travail divisé en quatre parties: 1) Généralités. Anciens instruments. 2) Les instruments actuels de hauteurs égales. 3) Elimination de l'équation personnelle. 4) Calculs de préparation et de réduction des observations de hauteurs égales.

**Chavanier C.** - Mission hydrographique Algérie–Tunisie–Maroc 1933. Levé de Fedhala (21 Juin au 10 Août 1933) [*Agitur de missione hydrographica in Algariam, regionem Tunetanam et Mauretaniam, A. 1933*]. Cart. Ann. Hydrogr., XIII, Ser. III, 141-152. Paris (1934). **a - 1050**

**Chevljaghine V.** - Détermination du point astro-radiographique sur les Iles de Pakhtoussov en 1934 (Novaja Zemlja, côte orientale) [*De puncto astro–radiographico in insulis* Pakhtoussov *eiusque determinatione, A. 1934 (in* Novaja Zemlja, *litoribus occident)*]. (En russe). 1 carte. Bull. Arct. Inst., 11/12, 404-406. Leningrad (1934). **a - 1051**

Compte-rendu des travaux astronomiques exécutés dans le but de déterminer des points de repère sûrs pour le levé géologique qui devra être fait par l'expédition dans la partie orientale de la Novaja Zemlja, organisée par l'Institut Arctique de l'URSS et pour le levé du littoral depuis Matotchkine Char jusqu'aux Iles Pakhtoussov, exécuté par l'Administration Centrale de la Voie Maritime du Nord.

**Chovan W. J.** - Method of Improving Poor Quality Lead Line [*Methodus ad filum ultimae naturae in melius reddendum in apparatu pro scandaliis*]. Rev. Hydrogr., XII, 1, 168. Monaco, Princ. (1935). **a - 1052**

Abstr. from Field & Engrs. Bull. of U. S. Coast & Geod. Surv. N° 7, 1934.

**Clifford Ch. J.** - Leveling in Massachusetts, Rhode Island, and Connecticut [*De livellationibus in regionibus* Massachusetts, Rhode Island *et* Connecticut]. 4 figs. U. S. Dpt. Comm. Coast & Geod. Surv. Spec. Publ. 181, 1-66. U. S. Govmt. Print. Off., Washington D. C. (1934). **a - 1053**

General statement. History. Instruments and field methods. Computations and adjustments: the 1920 General adjustment, orthometric correction. Bench marks. Cooperation in the preservation of bench marks. Descriptions and elevations of bench marks. Rail elevations.

**Clifford Ch. J.** - Leveling in Maine [*De livellatione in regione nomine* Maine]. 4 figs., tables. U. S. Dpt. Comm., Coast & Geod. Surv. Spec. Publ., 184, 1-68. U. S. Govmt. Print. Off., Washington D. C. (1934). **a - 1054**

This publication contains the descriptions and elevations of bench marks in the State of Maine, the elevations of which have been determined by first-order and second-order leveling executed by the Coast and Geodetic Survey. A short paragraph descriptive of each line is found at the beginning of the list of descriptions and elevations of the bench marks along the line.

**Clowes A. J.** - Hydrology of the Bransfield Strait [*Fretum* Bransfield *eiusque hydrologia*]. Discovery Comm., Col. Off., London, Govmt. Depend. Falkland Isl., 9, Univ. Press. Cambridge (1934). **a - 1055**

**Comola A.** - Il tacheometro e i tacheometri autoriduttori [*De apparatu tacheometrico deque apparatibus tacheometricis autoreductoribus*]. Prove comparative. 24 pp., 8 fig., Tip. Artigianelli (G. Rossi). Torino (1935). **a - 1056**

L'autore ha eseguito alcune prove comparative con i seguenti strumenti: tacheometro autoriduttore Hammer-Fennel; tacheometro autoriduttore Bosshardt-Zeiss; l'autoclivotelemetro del geometra G. Gratarola.

**Couderc René & Danton Jean** - Sur la découverte d'un haut–fond remarquable entre Madère et le Portugal [*De invento notando altofundo inter Maderam et Lusitaniam*]. 1 fig. C. R. Acad. Sc. CC, 15, 1292-1294. Paris (1935). **a - 1057**

Compte rendu de la découverte, le 4 mars 1935, par 35°04′ de lat. Nord et par 12°54′ de long. Ouest, près du point de rupture du câble sous-marin reliant Brest à Casablanca, d'un nouveau banc très remarquable, dont le sommet formé par un plateau de faibles dimensions est à 60 mètres au-dessous du niveau de la mer. Le banc portera, sur les cartes marines, le nom de Banc de l'Ampère, en souvenir du navire-cablier qui l'a découvert.

**De Agostini E.** - La cartografia nelle colonie libiche [*De coloniis Libycis earumque chartographia*]. Riv. Colonie Ital., 6, 445-462. Bologna (1934). **a - 1058**

Due tipi di cartografia rappresentano i territori delle nostre Colonie: *a*) cartografia regolare, limitata alle regioni costiere che interessano la vita del territorio e la sua valorizzazione; *b*) cartografia di ricognizione per i territori rimanenti e per la visione d'insieme.

**Divitijarov N.** - Solution du problème de Pothenot à l'aide de la méthode des approximations consécutives [*De* Pothenot *eiusque problemate pro quadam solutione per approximationem consecutivam*]. (En russe). 2 fig., tabl., Gheodesist, 5/6, 38-42. Moskva (1933). **a - 1059**

Quelques précisions concernant la méthode de solution du problème de Pothenot, telle qu'elle est illustrée dans le cours de R. J. Tiele « Phototopographie dans son développement actuel », pour la détermination de la distance du foyer de l'objectif de la chambre photographique à l'aide d'approximations consécutives (en série), avec référence spéciale au principe de base, dont s'inspire la méthode susmentionnée.

**Drobyschev F.** - Stéréoautographe [*De stereoautographo*]. (En russe). 5 fig. Gheodesist, 7/8, 39-45. Moskva (1933). **a - 1060**

Théorie, méthode de construction, fonctionnement et application d'un appareil destiné au traitement et à l'élaboration stéréophotogrammétrique des négatives des levés superficiels, dans le but d'obtenir un plan topographique.

**Edgell J. A.** - « Echo » Methods of Soundings. Méthodes de sondage par le son [*De scandaliis per sonum*]. (In Engl. & French). 1 fig. Int. Hydrogr. Bull., 1, 12-13. Monaco, Princ. (1935). **a - 1061**

Extrait d'une lettre adressée au journal « The Times », le 28 Septembre 1934, dont il résulte qu'au moyen de sondages par le son on obtient non seulement la profondeur exacte, mais encore le contour même, très net, d'une épave, ce qui est démontré par un exemple de récupération d'une épave située entre les hauts-fonds de l'Inner et de l'Outer Gabbard, à l'entrée de la Tamise.

**Edgell J. A.** - Faux échos par eau profonde [*Falsa echo aquarum peraltarum causa*]. 1 tab. h. t. Rev. Hydrogr., XII, 1, 20-21. Monaco, Princ. (1935). **a - 1062**

Extrait d'une lettre du Contre-Amiral Edgell sur un rapport en argument de l'H. M. S. « Challenger ».

**Elisseev F.** - Essai d'application de la méthode de Heuwelink et étude des sections des cercles de grands théodolites et des instruments universels [*De* Heuwelink *eiusque methodu. Agitur de methodu applicanda ad studendas circulorum sectiones in magnis theodolitis et in universalibus instrumentis*]. (En russe). 11 graph. & tabl., Gheodesist, 1/2, 24-34. Moskva (1933). **a - 1063**

Résultats des recherches et des études accomplies en janvier-mars 1932 par l'Institut des travaux géodésiques fondamentaux de la Direction Géodésique de l'URSS, sur les sections des cercles de 10 grands théodolites de 4 instruments universels. Ces instruments étaient destinés à l'exécution d'observations et de triangulations de 1ère classe et, en partie d'observations astronomiques. L'étude d'un nombre relativement important de cercles a permis d'établir et de définir les qualités et les défauts de la méthode modifiée de Heuwelink qui a remplacé la méthode classique de Bruns dans la nouvelle instruction pour l'exécution de triangulations de 1ère classe, et de formuler quelques considérations d'ordre pratique au sujet.

**Entine I.** - Mesure de la base sur la glace [*De mensuranda basi ad superficiem glaciatam*]. (En russe). 1 fig. Gheodesist, 11/12, 20-23. Moskva (1933). **a - 1064**

Compte rendu des travaux exécutés lors de la triangulation de 1ère classe de la région Kemj-Mourmansk en 1932, au cours de laquelle une des bases a dû être construite sur la superficie du lac Imandra qui se trouve au-delà du cercle arctique à 67°30′ lat. Nord.

**Feierabend V.** - Tableau nomologique de logarithmes à quatre décimales pour la détermination des erreurs en surplus [*Tabula nomologica logarithmorum quattuor notis praedita ad supererrores determinandos*]. (En russe). 1 fig. Gheodesist, 1/2, 21-24. Moskva (1933). **a - 1065**

Description d'un tableau nomographique dont l'emploi peut être fait avantageusement et commodément dans tous les cas qui exigent l'application de logarithmes à quatre termes, comme p. ex. dans le calcul des membres de rectification dans la géodésie, etc.

**Garner C. L.** - Progress of the Geodetic Work of the United States Coast and Geodetic Survey, April 1, 1933 to March 31, 1934 [*De instituto* U. S. Coast and Geodetic Survey *eiusque progressibus in operibus geodesicis a die 1 Aprilis A. 1933 ad diem 31 Martii A. 1934*]. 1 map. Nat. Res. Counc. Trans. Amer. Geoph. Union. 15th Ann. Meet., Part I, 48-53. Washington D. C. (1934). **a - 1066**

Account of the work accomplished during the year, from April, 1, 1933 to March, 31, 1934 by the U. S. Coast and Geodetic Survey, which was the greatest in the history of the Survey. It consisted mainly of triangulation and leveling for furnishing the horizontal and vertical control-nets, astronomical observations, base-measurements, gravity-determinations, and the operation of two international latitude-observatories.

**Gennaro Ida** - Aggiunta alla Nota: « Determinazione di gravità relativa tra l'Istituto Idrografico della R. Marina in Genova e Andrate » [*Additio ad notam: « De gravitatis relativae determinatione inter Institutum hydrographicum Regiae Classis, Genuae et* Andrate »]. Atti R. Acc. delle Sc. di Torino. Cl. Sc. Fis., Mat. e Nat., a. 69, tomo I, disp. 2, 249-251. Torino (1934). **a - 1067**

Viene data una tabella in cui si riportano le anomalie della gravità in varie stazioni presso il meridiano di Mondovì, calcolate con la formula di Helmert 1901 e con la formula internazionale 1930, a complemento delle precedenti Note riflettenti le stazioni anzidette.

**Gougenheim André** - Sur la précision obtenue dans les déterminations de la latitude au moyen de l'astrolabe à prisme [*De obtenta perfectione in latitudine determinanda per astrolabium prismate praeditum*]. 1 tabl. C. R. Acad. Sc., CC, 12, 1015-1017. Paris (1935). **a - 1068**

Résultats d'observations effectuées en octobre et novembre 1933, à l'occasion de l'opération internationale de révision des longitudes mondiales, à San Diego (Californie), avec un astrolabe à prisme. Dans un tableau l'A. reproduit les résultats obtenus au cours des 46 séries d'observations qui ont été faites; au cours de chaque série une soixantaine d'étoiles ont été observées. Les écarts à la moyenne ont été déterminés; les observations ont été faites avec deux instruments: un astrolabe à prisme S. O. M. de grossissement 80 (modèle géodésique) et un astrolabe S. O. M. de grossissement 120.

**Greve Sv.** - Echo Soundings [*De scandaliis per echum*]. 2 tabl., 7 pls. Introd. Rep. Carlsberg Foundation's Oceanogr. Exped. round the World 1928-30. Dana-rep. 1, 79-130. Copenhagen & London (1934). **a - 1069**

Introductory remarks: the echo- sounding apparatus, installation, trials, operation, etc., performance and planning of the work on board the ship, the fixing of soundings, re-checking and compilation, arrangement and tabulation of soundings. Tables of soundings, date, latitude, longitude and depth.

**Gutenberg B.** hrsg. von - Handbuch der Geophysik. Band III, Lief. 3 [*Liber manualis de Geophysica. Vol. IIIum, fasc. IIIus*]. iv — 501-730. Gebr. Bornträger. Berlin (1934). **a - 1070**

Der vorliegende Band enthält eine Arbeit von Walter B. Lambert über Breitenschwankungen, und einen Bericht über die Theorie des irdischen Schwerefeldes von E. A. Ansel.

**Harris G. D.** - A Low Price Station Indicator [*De apparatu parvi pretii qui stationes indicat*]. 3 figs. Science, LXXX, 2063. 38, New York (1934). **a - 1071**

On a long-legged home-made tripod whose cost and labor is no more than 3 dollars. Indications for its construction.

**Huber Otto** (von) -Aménagement photogrammétrique du dirigeable « Comte Zeppelin » au cours de son vol arctique de 1931 et méthodes d'élaboration du matériel photogrammétrique réuni [*De apparatibus photogrammetricis in aëronavi* « Comte Zeppelin » *inter volatum arcticum A. 1931. Agitur etiam de elaborandis studiis photogrammetricis unitis*]. (En russe trad. de l'allem.). 9 fig., 1 tab. Gheodesist, 5/6, 61-69. Moskva (1933). **a - 1072**

Traduction de l'article paru dans « Bildmessung und Luftbildwesen », n° 4, pp. 146-151, 1931, dont il résulte que la photographie aérienne, même lorsqu'elle est exécutée en des conditions défavorables, fournit presque toujours un matériel important au point de vue géographique et cartographique, ainsi qu'océanographique, vu que les levés aériens du mouvement des glaces, tels qu'ils ont été faits au cours du voyage du « Comte Zeppelin » permettent d'obtenir des données très sûres sur les courants de la région survolée.

**Jazev I.** - Instrument pour la détermination de passages avec deux micromètres [*De apparatu ad transitum determinandum duobus praedito micrometris*]. (En russe). 3 figs. Gheodesist, 1/2, 35-39. Moskva (1933). **a - 1073**

Description d'un nouveau type d'instrument pour la détermination de passages des astres muni de deux micromètres autoregistrateurs qui permettent de récupérer l'erreur personnelle entre les observations exécutées par des observateurs différents.

**Judson Lewis V.** - Graduation and Calibration of Precision-Circles [*De gradibus et diametris circulorum*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 38-39. Washington (1934). **a - 1074**

At the annual meeting of the American Geophysical Union in 1932 the author reported on some tests made on the Bureau of Standards circular dividing-engine which demonstrated the high accuracy of that instrument. In the present paper he gives some results of a series of circles graduated on this engine for the United States Coast and Geodetic Survey. These circles intended for use in the 9-inch Parkhurst first-order theodolite, are made of cast sterling silver. The processes of preparation of the circles are circles.

**Kagan V** - Tableau pour le calcul de la convergence des méridiens [*Tabula ad meridianorum convergentiam calculandam*]. (En russe). 1 tabl. Gheodesist, 11/12, 80-81. Moskva (1933). **a - 1075**

Tableau qui permet d'exécuter ce calcul avec une précision jusqu'à 0',1-0',2 sur la base des coordonnées de Gauss du point.

**Kawasaki S.** - Latitude Observations at Greenwich [*De observatis latitudinibus in* Greenwich]. Journ. R. Astron. Soc., M. N. XCV, 33-41. London (1934). **a - 1076**

An investigation of the direction of the wind on the latitude observation made at Greenwich was carried out by using the observations made during the years 1919. 6 to 1927. 1. More than half of the Kimura term in the latitude observations was shown to be due to the wind. It is also to be expected that in all meridian observations at Greenwich a systematic term of semi-annual type will be found.

**Kawasaki S.** - Effect of the Wind on the Observed Latitude at Mizusawa [*De ventorum effectu in latitudinem in* Mizusawa *observatam*]. 3 figs., 8 tables. Jap. Journ. Astr. & Geoph., Trans. & Abstr. XII, 2, 131-150. Tokyo (1935). **a - 1077**

The principal points of the author's investigation can be summarized as follows: 1. It is ascertained that there exists a close correlation between the direction of the wind and the observed latitude, and that it can be represented by a simple harmonic; 2. This correlation seems to remain constant throughout the whole year; 3. The correlation between the velocity of the wind and the observed latitude was also recognized; 4. As the result of the annual variations of the elements of the wind, there arises in the observed latitude a term, which varies systematically during the course of a year. It is remarkable that the phase and period of this variation are quite similar to those of the Kimura term; 5. The mean latitude, determined from the observed data, is apt to be affected by the wind.

**Kimoto V.** - La Aerofotogrametria en el Japón y en Manchuria [*De aërophotogrammetria in Japonia et* Manchuria]. An. Soc. Esp. Estudios Fotogramétricos, IV, 3. Madrid (1934). **a - 1078**

**Kourline D.** - Méthode combinée de phototriangulation [*Methodus combinata pro phototriangulatione*]. (En russe). 4 fig., 3 tabl., Gheodesist, 11/12, 36-40. Moskva (1933). **a - 1079**

Description d'une nouvelle méthode de triangulation qui permet d'accélérer son exécution tout en conservant la même exactitude.

**Kourline D.** - Réduction des photographies aériennes à la même échelle [*De aërophotographiis ad eumdem modulum reductis*]. 6 fig., 1 tabl. Gheodesist, 11/12, 62-67. Moskva (1933). **a - 1080**

Description d'une méthode de réduction des photographies aériennes à la même échelle à l'aide d'une chambre de projection ou des cônes à échelle.

**Krassovskij F. N.** - Déduction simplifiée des formules fondamentales pour le calcul des coordonnées de Gauss-Krüger [*Deductio simplicior formularum praecipuarum ad calculandas coordinatas* Gauss-Krüger]. (En russe). 20 pp. (Dactylogr.). Inst. Géodés. Moscou (1934). **a - 1081**

Vu que probablement pas même le 10 % des personnes qui doivent se servir dans leurs travaux des coordonnées de Gauss-Krüger ne possèdent une instruction géodésique supérieure, l'A. a cru utile de donner un fondement théorique simplifié de ces coordonnées, en se servant comme point de départ des formules de Schreiber pour le calcul des coordonnées géographiques, parce que ces formules sont connues par beaucoup de personnes exécutant des travaux topographiques et géodésiques.

**Lanza L.** - Sulla possibilità d'impiego di un traguardo per rilievi aerofotografici [*De utenda amussi in aërophotographicis adumbrationibus*]. Riv. Aeronautica, XI, 2, 247-249. Roma (1935). **a - 1082**

L'autore dopo avere accennato agli inconvenienti di disgiunzione e di eccessiva sovrapposizione che si verificano spesso nelle serie fotografiche planimetriche eseguite in volo, inconvenienti dovuti principalmente alla difficoltà di stabilire con precisione l'intervallo di scatto, espone il principio su cui si basa un traguardo che consente di determinare l'intervallo suddetto con molta praticità e prontezza e con la massima esattezza.

**La Porte Florian** - Rapport sur la triangulation du Port de Lorient [*Relatio de triangulatione in* Port de Lorient]. Ann. Hydrogr., XIII, Ser. III, 99-109. Paris (1934). **a - 1083**

Plan de la triangulation. Opérations. Topographie. Calculs. Réduction. Coordonnées rectangulaires des points déterminés par l'A. Calcul d'un point par la station.

**Léger M.** - Sondeur à drague [*Scandalium draca praeditum*]. 3 fig. sur pl. Résult. Camp. Scient. accomplies par Albert I, Prince Souverain de Monaco. Fasc. LXXXIX, 349-351. Monaco (1934). **a - 1084**

Ce sondeur est destiné à prendre des échantillons de sable, vase ou gravier constituant le fond de la mer: il ramène un echantillon du fond quel qu'il soit, alors que les sondeurs employés jusqu'à ce jour remontent quelquefois sans rien ramener. Description de l'appareil.

**Lushene J. P.** - Longitude–Determination at Honolulu as Part of the International Program of 1933 [*De longitudinibus determinatis in* Honolulu *ex internationali ratione A. 1933*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 40-41. Washington D. C. (1934). **a - 1085**

Brief account of the study of the phenomenon of the simility of the shapes of the opposite coast-lines of the South Atlantic Ocean, i. e. that each major indentation on the east coast of South America has a corresponding protuberance on the west coast of Africa. This study has brought about a new conception of the nature of the Earth's crust and movements of drift of land-masses which is called the theory of displacement of continents. In this paper an account is given of the second campaign of the world-longitude program carried out at Honolulu during the months of October and November 1933 by the Coast and Geodetic Survey.

**Maljtzev G.** - Modèle pour le traçage du réseau des coordonnées [*Modulus ad rete ordinatarum delineandum*]. (En russe). 4 fig. Gheodesist, 1/3, 92-93. Moskva (1933). **a - 1086**

Description du modèle qui permet d'utiliser des feuilles de papier à rouleau et d'économiser le temps dans l'exécution des tracés.

**Maranca Francesco** - La quota di volo nei rilevamenti aerofotogrammetrici e l'uso delle camere doppie [*De altitudine volatus pro photogrammetricis adumbrationibus deque utenda duplici camera*]. 1 fig. (Nota). Universo, 3, 243-246. Firenze (1935). **a - 1087**

**Mathieson John** - The Story of Arctic Voyages and Explorations. With Bathyorographical Chart of the North Polar Basin, by John Bartholomew [*Historia navigationum et explorationum arcticarum, cum tabula bathyorographica bacini polaris septentrionalis ad Johannem* Bartholomew *pertinente*]. Scott. Geogr. Mag., L, 5, 281-308. Edinburgh (1934). **a - 1088**

Summary of the most important voyages in the Arctic, completed by a bathyorographical Chart of the North Polar Basin on the scale 1 : 14.000.000, which represents a very valuable contribution to the cartography of the polar region and contains the most recent discoveries made in the North.

**Mikhno V.** - Sur la question de l'emploi des garnitures Bulldog dans la construction des signes trigonométriques [*De utendis coniunctionibus* Bulldog *in signis trigonometricis construendis*]. 11 fig., Gheodesist, 3/4, 27-33. Moskva (1933). **a - 1089**

Description des garnitures Bulldog de forme ovale, carrée et ronde, employées pour la jonction des différentes parties des constructions, surtout des constructions en bois, et les avantages que représente leur emploi, surtout en ce qui concerne les constructions trigonométriques. Quelques exemples d'emploi des Bulldog en Allemagne.

**Morgan H. R.** - Effect of Moon's Position on Observed Clock–Corrections [*De lunae positione eiusque effectu in correctiones horologio ferendas*]. 1 table, Nat. Res. Counc, Trans., Amer. Geoph. Union, 15th Ann. Meet., Part I, 46-48. Washington D. C. (1934). **a - 1090**

Possible detection of the influence of the Moon on observed clock-corrections examined by tabulating, according to hour-angle and declination of the Moon, the differences of two definitive clock-corrections, taken on the average of eight hours apart on the same night. The observations, whose results are reported here were taken on the 9-inch transit circle at the United States Naval Observatory on 1,535 nights in the interval 1903-1921.

**Morgan H. R.** - Results of Observations with the nine–inch Transit Circle 1913-1926 [*De resultatibus ex observationibus, cannoculario transitus registrante, novem pollicium longitudine peractis A. 1913-1926*]. U. S. Nav. Observ., II Ser., XIII. Washington D. C. (1933). **a - 1091**

Observations of the sun, moon and planets. Catalogue of 9,989 standard and intermediary stars. Miscellaneous stars.

**Nakano Saburo** - The Longitude and the Latitude of Losap [*De longitudine atque latitudine in insula* Losap]. (In Jap.). Astron. Obs. Rep., II,

129-152; Mem. Astron. Soc. Japan, III, 143-166. Tokyo (1934). **a - 1092**

For the purpose of observing the total solar eclipse of February 14th, 1934, a party of the Tokyo Astronomical Observatory made an expedition to Losap Island of the East Caroline, where the author was engaged in the determination of the longitude and latitude of the observing station and also in the time keeping. The results of the determination are given. (Author).

**Nicolini T.** - Esempio di determinazione di latitudine (Trieste) col metodo del prof. Guarducci [*De latitudinis determinatione, Tergeste, per methodum prof.* Guarducci]. 1 fig., Mem. Soc. Astron. It., VIII, 2, 209-219. Milano (1934). **a - 1093**

Si dà una applicazione del metodo in parola alla latitudine di Trieste, per mezzo di osservazioni eseguite dal 19 al 30 luglio 1932, ed allo scopo di mostrare per disteso l'applicabilità e la convenienza di esso.

**Niederhausen E.** - Praktische Erfahrungen mit dem Funkpeiler. Eine Entgegnung [*De practicis experimentis, radioscandaliorum auxilio peractis. Responsio*]. Seewart, IV, 2, 76-78. Hamburg (1935). **a - 1094**

Vf. beweist, dass der Wert der Langstrahlpeilung häufig in der Schiffahrt unterschätzt wird, und erwähnt mehrere Fälle, in welchen diese Peilungen vom grössten Werte gewesen sind.

**Nistri Umberto** - Sui limiti della convenienza d'impiego dei metodi aerofotogrammetrici di rilievo [*De utendis rationibus aërophotogrammetricis in adumbrationibus peragendis.Quaestio de limitibus*]. Riv. Catasto Serv. Tecn. Erar., 2, 93-97. Roma (1934). **a - 1095**

L'A. esamina la convenienza d'impiego dei nuovi metodi di rilievi aerofotogrammetrici, mettendo in particolare evidenza l'importanza dei risultati tecnici ed economici che possono essere conseguiti mediante un'accorta integrazione di questi nuovi metodi con gli usuali procedimenti topografici, sopratutto per le levate a grande scala. A dimostrazione della tesi, l'A. descrive alcuni tipi speciali di rilievo.

**Nistri U.** - Il fotocartografo multiplo Nistri per le levate a piccola scala [*De photocartographo multiplici* Nistri *in adumbrationibus exigua schala peragendis*]. 4 ill., Riv. Catasto e Serv. Tecn. Erar. II, 2, 138-147. Roma (1935). **a - 1096**

L'A. descrive un suo nuovo apparecchio di restituzione aerofotogrammetrica, derivato sempre dal Fotocartografo, per le carte a piccola scala e per rilievi speditivi. Dopo averne messo in evidenza alcune caratteristiche, espone il procedimento col quale si potrà eseguire una triangolazione aerea a tre dimensioni per zone inaccessibili. Argomentando sull'impiego di camere multiple o accoppiate, esprime la sua convinzione che il problema delle possibilità economiche per alcuni tipi di carte a piccola scala debba trovarsi nel potenziamento della terza dimensione e cioè nella conquista dell'alta quota.

**Noumerov V.** - Calcul des coordonnées Gauss-Krüger [*Ordinatarum* Gauss–Krüger *calculus*]. (En russe). 9 tabl., Gheodesist, 3/4, 33-43. Moskva (1933). **a - 1097**

Commentaire aux 9 tableaux publiés par l'Institut Astronomique de Léningrad pour le calcul des coordonnées géographiques et rectangulaires de Gauss-Krüger pour les latitudes de 36° à 72° avec une précision jusqu'à 0,1 mètre et 0'',01, dont l'application est prévue exclusivement dans les travaux avec l'emploi de l'arithmomètre. Les formules qui constituent la base du problème direct, et précisément du calcul des coordonnées rectangulaires en partant des coordonnées géographiques, sont empruntées au cours de Jordan-Eggert, « Handbuch der Vermessungskunde », III. Band, 1923.

**Numerov V.** - General Formulae for the Development of Perturbing Forces in the Calculation of Absolute Perturbations in Polar Coordinates [*Agitur de perturbationibus absolutis in coordinatis polaribus calculandis. Formulae generales ad virium perturbatricium progressiones calculandas*]. (In Russ. Engl. Summ.). 1 table, C. R. Acad. Sc. U. R. S. S., I, 7/8, 452-457. Léningrad (1935). **a - 1098**

This paper gives the general formulae for the calculation of perturbing forces R, T, and Z by four arguments. The main feature of this work is an attempt to give general formulae for the perturbing forces without resorting to the usual interpolation methods of the development of the perturbing forces into Fourier series by two arguments.

**Ogilvie Noel J.** - The Coast–Line and Islands of Hudson–Bay. An Ideal Field for Geodetic Astronomical Work [*De linea litorea deque insulis in baja* Hudson *nomine ac optimo campo ad opera peragenda geodetico–astronomica*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 41-45. Washington D. C. (1934). **a - 1099**

After a few introductory remarks concerned with the history of the discovery and exploration of Hudson Bay a brief account is given of a considerable precise astronomical work, on the western coast, in connection with the establishment of Interprovincial boundary-terminals and the charting of the coastal waters adjacent to the new port of Churchill, carried on in recent years by the Geodetic Survey of Canada, Department of the Interior.

**Pasini Claudio** - Trattato di Topografia [*Tractatus de topographia*]. 241 fig., Sesta Edizione, viii + 624, Coop. Tip. Mareggiani. Nicola Zanichelli Edit. Bologna (1934). **a - 1100**

L'A. avverte che, in questa sesta edizione, ha soppresso qualche parte che gli parve ingombrante in un trattato che riveste un carattere essenzialmente pratico, aggiungendo, invece, alcune notizie sui più interessanti strumenti che, in questi ultimi anni, andarono ad arricchire il materiale topografico.

**Patton R. S.** - Coast and Geodetic Survey. Its Work in Surveying and Charting the Waters of the United States and Possession, Geodetic Control Survey, and Other Activities [*De instituto* Coast and Geodetic Survey. *Agitur de operibus topographicis et cartographicis peractis in aquis ad Americae Status foederatos pertinentibus atque etiam in regionibus in dicione Americanorum. Agitur etiam de adumbrationibus geodesicis ceterisque activitatibus*]. 2 figs., U. S. Dpt. Comm., How It Serves You etc.. 17-24. Washington D. C. (1934). **a - 1101**

History of Bureau growth. Geodetic surveys. Hydrographic and topographic surveys. Tide and current surveys. Magnetic surveys. Office compilation. Earthquake safeguards. Maps for the aviator. Information valuable for other purposes.

**Pazeljskij N.** - Obtention du tracé d'un plan sur la base de photographies aériennes non-transformées (En ordre de discussion) [*De adumbratione per aërophotographias non transformatas obtenta*]. (En russe). 1 fig. Gheodesist, 3/4, 103-104. Moskva (1933). **a - 1102**

Quelques commentaires et observations critiques à propos du volume de l'ing. N. N. Veselovskij. Elaboration de plans et de cartes sur la base de photographies aériennes non-transformées qui contient beaucoup d'indications utiles toutefois et qui surtout trace de nouvelles lignes directrices en ce qui concerne l'utilisation, dans la topographie et dans la cartographie, des résultats de levés aériens.

**Petrenko A.** - Nuovo sistema di formule tacheometriche precise [*Ratio nova formularum tacheometricarum exactarum*]. (In russo). 2 fig. Gheodesist, 1/2, 82-87. Moskva (1933). **a - 1103**

Sviluppo puramente matematico di formule adatte alla topografia ed atte all'eliminazione o alla diminuzione di errori, quando il lavoro sia convenientemente preparato.

**Petrenko A.** - Une nouvelle méthode d'élaboration de tableaux tachéométriques [*Ratio nova ad tabulas tacheometricas elaborandas*]. (En russe). 1 fig., 4 tabl. Gheodesist, 5/6, 30-37. Moskva (1933). **a - 1104**

Description et illustration de la théorie fondamentale, de l'élaboration et de l'emploi de tableaux tachéométriques nouveaux, proposés par M. Ganjchine, qui permettent de déterminer les différences de niveaux plus rapidement, plus facilement et avec plus d'exactitude que lorsque l'on emploie les tableaux existants, surtout dans le cas d'angles non supérieurs à 10°.

**Petroni Antonio** - Idrofoni. Scandagli acustici e ultrasonori (Continuazione) [*De hydrophonis, scandaliis acusticis et ultrasonoris*]. 12 fig., Riv. Maritt., suppl. tecn. al fasc. 7-8, 15-32. Roma (1934). **a - 1105**

Premesse brevi note sui vantaggi degli scandagli acustici ed ultrasonori rispetto a quelli di carattere puramente meccanico, l'A. esamina i metodi su cui sono basati tali scandagli, metodi che attualmente possono ridursi a due: quello a misura d'angolo e quello a misura di tempo. Svolge infine alcune considerazioni sulla scelta della frequenza degli scandagli a tempo d'eco e sulla velocità di propagazione del suono in mare.

**Piazzolla Beloch M.** - Elementi di fotogrammetria terrestre ed aerea. [*De photogrammetria terrestri et aëria*]. 1 fig., 9 tav., f. t. iv -- 87 pp. Officine Grafiche della «Cedam», Casa Editrice Dott. Antonio Milani «Cedam». Padova (1934). **a - 1106**

Il volumetto ha un indirizzo prevalentemente didattico, con carattere esclusivamente geometrico. Nella prima parte, che tratta dei *fondamentali teorici* e della *fotogrammetria terrestre*, l'A. riassume la consueta teoria. Nella seconda parte, che tratta della *fotogrammetria aerea*, ha cercato di riassumere gli indirizzi più importanti, risolvendo in modo nuovo il problema di determinare il punto di presa dati due punti e una direzione. Nell'*Appendice* ha ricordato alcune costruzioni di Geometria proiettiva più spesso adoperate nel testo, modificandone qualcuna delle consuete, per renderne più facile l'applicazione pratica.

**Pinke F.** - Depth Determination [*Determinatio profunditatum*]. Wetensch. Uitk. Onderz. Snellius-Exp., 1929-1930. II, Oceanography, Part 2, Chapt. I, Kemink en Zoon N. V. Utrecht (1935). **a - 1107**

Different soundings, apparatuses and corrections. Velocity of sound. Influence of currents on wire soundings. Influence of the slope of the bottom. Precision of deep-sea charts.

**Rappleye H. S.** - Leveling in Florida [*De livellationibus in* Florida]. 4 ills., U. S. Dpt. Comm. Coast & Geod. Surv. Spec. Publ. 185, 1-105. Washington D. C. (1934). **a - 1108**

General statement. Instruments and field methods. Computations and adjustments. Bench marks. Cooperation in the preservation of bench marks. Rail elevations. Descriptions and elevations of bench marks. This publication contains the description and elevations of bench marks in the State of Florida, the elevations of which have been determined by first-order leveling executed by the Coast and Geodetic Survey. Approximately 2,050 miles of first-order leveling have been run within the limits of this State.

**Reynolds W. F.** - Manual of Triangulation Computation and Adjustment [*Calculi et correctiones triangulationum. Liber manualis*]. 72 ills. num. tabl. Dpt. Comm., U. S. Coast & Geod,. Surv. Spec. Publ. 138, ii - vi, 1-242. U. S. Govmt. Print. Off. Washington D. C. (1934). **a - 1109**

1. Preliminary computations. 2. Adjustment of a quadrilateral. 3. Adjustment of a net of triangulation by the direction method. 4. Adjustment of a net of triangulation by the angle method. 5. Computation and adjustment of elevations from zenith-distance observations. 6. Special problems connected with the computation of triangulation. 7. General rules and suggestions. 8. Constants, formulas, and tables.

**Richard J.** - La bouteille Richard (petit et grand modèle) [*De buticula* Richard (*modulus parvus et magnus*)]. 1 fig. h. t. Result. Camp. Scient. accomplies par Albert I, Prince Souverain de Monaco. Fasc. LXXXIX, 351-352. Monaco (1934). **a - 1110**

La bouteille connue sous ce nom qui lui a été donné par S. A. S. le Prince Albert I<sup>er</sup> a été décrite en 1902, 1907, 1910. Elle est employée à bord du yacht du Prince depuis 1902. Le grand modèle est décrit ici pour la première fois.

**Richard J.** - Sur trois nouveaux messagers destinés aux opérations océanographiques [*De mandatariis* (*id est apparatibus qui gallice dicuntur* messagers) *ad opera oceanographica peragenda. Agitur de novis typis tribus*]. 3 fig. h. t. Result. Camp. Scient. accomplies par Albert I, Prince Souverain de Monaco. Fasc. LXXXIX, 352-353. Monaco (1934). **a - 1111**

Il s'agit de modèles qui présentent quelques simplifications sur les messagers (destinés à provoquer à un moment donné et à une profondité déterminée le fonctionnement de divers appareils d'océanographie) connus jusqu'à présent.

**Rosenbaum L.** - Determinations of Latitude and Longitude (The Swedish-Norwegian Arctic Expedition 1921) [*De latitudinis et longitudinis determinationibus* (*Navigatio ad regiones arcticas a Suetiis et Norvegis suscepta A. 1931*)]. Formulas and tabl. Geogr. Ann., XV, 1, 25-45. Stockholm (1933). **a - 1112**

The points determined, instruments and publications used, methods of observation and calculation.

**Rothery E. A.** - The Range Finder in Topographical Surveying [*De telemetro pro topographicis operibus*]. Emp. Surv. Rev. July, 400-403. London (1934). **a - 1113**

**Rozhkov V.** - Dispositif pour le dessin topographique [*Apparatus ad topographicas delineationes perficiendas*]. (En russe). 6 fig., Gheodesist, 11/12, 68-71. Moskva (1933). **a - 1114**

Description d'un dispositif composé d'un carré et d'une règle pour l'exécution des dessins topographiques qui peut remplacer 1) la règle proportionnelle, le dispositif de Vernitzkij, la règle à échelle, 2) permet de régler l'angle d'inclination de la calligraphie topographique, et 3) rend mécanique la reproduction des différents symboles topographiques.

**Rude Gilbert T.** - Les progrès récents des levés hydrographiques [*De recentioribus progressibus in adumbrationibus hydrographicis peragendis*]. Rev. Hydrogr., XII, 1, 123-128. Monaco, Princ. (1935). **a - 1115**

Extrait du Report of the Fifth Pac. Sc. Congr. Vancouver (1933).

**Ruggiero Placido** - Importanza e sviluppo della fotogrammetria [*De photogrammetria. Quaestio de eius momento et progressibus*]. Ann. R. Ist. Sup. Nav., 3º, 2, 119-153. Napoli (1934). **a - 1116**

Rapida rivista di quanto s'è fatto a riguardo della fotogrammetria, nel mondo intero. Vasto elenco bibliografico.

**Rusinov I.** - Fondements d'un projet de rationalisation de la production topographique-géodésique et cartographique [*Fundamenta cujusdam rationis ad res topographicas, geodesicas et cartographicas unificandas*]. (En russe). Gheodesist, 3/4, 1-6. Moskva (1933). **a - 1117**

L'A. résume et décrit brièvement les principaux moments du processus de rationalisation qu'il voudrait voir appliquer à la production topographique, géodésique et cartographique de l'Union des Soviets.

**Safonov S.** - Les problèmes actuels de l'Institut Central de Recherche Scientifique pour la Géodésie, les levés aériens et la cartographie [*De hodiernis problematis ab Instituto Centrali Investigationum Scientificarum persolvendis quoad geodesiam, aërioadumbrationes et cartographiam*]. Gheodesist, 7/8, 7-9. Moskva (1933). **a - 1118**

Quelques considérations sur la nécessité de l'unification de la recherche scientifique dans le domaine de la géodésie, des levés aériens et de la cartographie exécutés dans l'URSS qui devraient être toujours faits sous les auspices et le contrôle de l'Institut Central.

**Salistschev K.** - Travaux géodésiques de l'Institut Arctique en 1934 [*De operibus geodesicis ab Instituto Arctico peractis A. 1934*]. (En russe). Bull. Arct. Inst., 5, 225-226. Leningrad (1934). **a - 1119**

Programme des travaux prévus pour l'année 1934 qui doivent avoir pour but de fournir des levés cartographiques aux expéditions soviétiques et de contribuer à la réunion de matériaux pour l'élaboration des cartes des territoires situés le long de la Voie Navigable du Nord.

**Schaffernak Friedrich** - Hydrographie [*De Hydrographia*]. ix — 438 S., J. Springer, Wien & Berlin (1935). **a - 1120**

**Schulz B.** - Die hydrographischen Arbeiten der Deutschen wissenschaftlichen Kommission für Meeresforschung [*De operibus hydrographicis peractis a Germanica Commissione pro Maris exploratione*]. Ber. dtsch. Wiss. Komm. Meeresf., N. F., VII, 196-212. Leipzig (1934). **a - 1121**

**Schumacher Arnold** - Kippthermometertafeln neuberechnet auf Grund der Formeln von W. Hansen [*Tabulae pro thermometris reversibilibus denuo calculatae ex formulis a* W. Hansen *perfectis*]. 4 Tabellentaf., Ann. d. Hydrogr. LXIII, 6, 237-239. Berlin (1935). **a - 1122**

Neuberechnung von Hilfstafeln, für welche aus mathematischen Erwägungen die Näherungsformeln von W. Hansen zugrundegelegt worden sind. Es wurden für das druckgeschützte Thermometer und für das Thermometer mit offenem Schutzrohr Tabellen auf drei Dezimalstellen und auf zwei abgekürzte Dezimalstellen berechnet.

**Simpson A. E.** - Mapping from Aerial Photographs – Etablissement des cartes topographiques d'après les photographies aériennes [*Tabularum topographicarum elaboratio ex photographiis aëriis*]. (In Engl. & French). Rev. Aéronaut. Int., 12. Paris (1934). **a - 1123**

L'A. donne de précieuses indications concernant l'utilisation des photographies aériennes en cartographie. Il expose toute la technique de l'établissement des cartes, d'après ces photographies et indique les précautions qui doivent être prises par le pilote au cours du vol en vue d'obtenir des photographies exactes, ainsi que le tracé des courbes de niveau par les procédés stéréoscopiques.

**Skijar I** - Mécanisation des travaux topographiques [*Operum topographicorum mechanisatio*]. (En russe). 6 fig., 1 tabl. Gheodesist, 5/6, 1-7. Moskva (1933). **a - 1124**

Description d'un cas d'application de la méthode tachymétrique pour l'exécution de levés topographiques ainsi que de l'emploi d'un niveau automatique, avec lequel on obtient des résultats tout aussi exactes qu'avec les instruments non automatiques.

**Smirnov K.** - Théodolites répétiteurs de O. Fennel avec des microscopes–micromètres [*Theodolites repetitores ad* O. Fennel *pertinentes, microscopiis praediti micrometricis*]. (En russe). 10 fig. Gheodesist, 1/2, 17-21. Moskva (1933). **a - 1125**

Description de la dernière création de la maison O. Fennel qui représente un microscope-micromètre dont la construction ressemble beaucoup à celle des appareils similaires construits dans le passé, mais qui, grâce à quelques nouveaux détails de structure, permet d'exécuter les observations plus rapidement et surtout avec beaucoup plus d'exactitude.

**Smirnov K.** - Le nouveau théodolite automatique de la maison Georg Butenschon [*Theodolitis novus automaticus ad societatem* G. Butenschon *pertinens*]. (En russe). 5 fig. Gheodesist, 9/10, 19-21. Moskva (1933). **a - 1126**

Description d'un nouveau type de théodolite qui a le même diagramme de l'instrument Hammer-Fennel, avec la différence qu'il est disposé directement dans le plan du réseau des fils du tube, ce qui permet d'éviter la réfraction des rayons lumineux que l'on observe dans le tachéomètre de Hammer-Fennel. La caractéristique particulière du nouvel instrument est que, tout en étant un théodolite-tachéomètre à répétition, il peut être transformé d'un seul mouvement de main en un tachéomètre automatique. Le mécanisme automatique de Butenschon peut être appliqué à chaque type de théodolite existant.

**Solaini L.** - Il problema del vertice di piramide [*De pyramidis problemate quoad verticem*]. 6 ill., Riv. del Catasto e dei Serv. Tecn. Erar. II, 1, 31-46. Roma (1935). **a - 1127**

Vengono esaminati i principali procedimenti analitici e grafici per la risoluzione del problema del vertice di piramide. Si espongono le soluzioni rigorose, grafiche, di successive approssimazioni, sia del problema del semplice vertice di piramide nel caso generale, e in quello degenere, sia del problema della doppia intersezione, costituendo il problema fondamentale della aerofotogrammetria.

**Soule Floyd M.** - Sounding Velocities in the Pacific [*De scandaliorum velocitate in Oceano Pacifico*]. 17 figs., Proc. 5th Pacif. Sc. Congr,. 873-886. Batavia–Bandoeng (1934). **a - 1128**

This paper is based upon the oceanographic data collected on the last cruise of the non-magnetic vessel « Carnegie » which operated in the Pacific from October, 1928, to November, 1929, and is concerned with the computation of sounding velocities, their variations, and their vertical distribution as observed on the various stations of the « Carnegie », and which at any point are a function of the temperature, salinity, and pressure at the given point.

**Sutherland O. P.** - First-Order Triangulation and Traverse in Louisiana (1927 Datum) [*Triangulatio primi gradus et triangulatio transversalis in* Louisiana. *A. 1927*]. 15 figs., U. S. Dpt. Comm. Coast & Geod. Surv., Spec. Publ. 183, 1-169. Washington D. C. (1934). **a - 1129**

This volume contains the results of all first-order triangulation and traverse in Louisiana that has been executed by the Coast and Geodetic Survey. Data for the subsidiary and intersection stations along the various first-order arcs are also contained. All available descriptions of the triangulation stations are included. This volume is one of a series of publication each of which will contain the geographic position on the new datum of 1927 and the descriptions and other data for all first-order triangulation of a State or occasionally of two States.

**Terada Torahiko** - On a Regularity in Topographical Features of North-East Japan [*De formis topographicis in regione Nord-orientali Japoniae earumque regularitate*]. 2 figs., Proc. Imp. Acad., X, 2, 65-68. Tokyo (1934). **a - 1130**

Recently, connected with the study of river basins in NE-Japan, the Author was led to investigate some structural regularity which seems to prevail in the same district. The method adopted is clearly illustrated.

**Tinoco J. & Carrasco R.** - Operaciones de longitudes [*De longitudine*]. Bol. diario Serv. Meteorol. Nac. I, 21/22. Madrid (1934). **a - 1131**

**Trofimenko I.** - Méthode combinée pour la détermination de la latitude du point [*Methodus combinata ad puncti latitudinem determinandam*]. (En russe). 2 tabl., Gheodesist, 5/6, 42-45. Moskva (1933). **a - 1132**

Illustration d'une méthode pour la détermination de la latitude qui représente une tentative de rationalisation de la dite détermination et qui s'inspire aux principes de base de deux méthodes bien connues, et précisément de la méthode de Talcott (le cas d'observation sur des fils constants) et de la méthode de la mesure des distances zénithales à la même position du cercle.

**Tucci M.** - La IV Esposizione internazionale di fotogrammetria [*Expositio IV^a^ internationalis photogrammetrica*]. Riv. del Catasto e dei Serv. Tecn. Erar., II, 147-151. Roma (1935). **a - 1133**

Cenno sugli strumenti e sulle applicazioni varie della fotogrammetria nel quadro della IV Esposizione Internazionale di Parigi.

**Vanssay (De) De Blavous** - Emploi de l'aviation pour les levés [*De utenda aëronavigatione ad topographicas adumbrationes redigendas*]. 4 fig., Rev. Hydrogr., XII, 1, 14-19. Monaco, Princ. (1935). **a - 1134**

Méthode par la comparaison des longueurs des côtés. Clichés conjugués - Comparaison des angles - Comparaison des longueurs.

**Virovetz A.** - Evaluation de la précision d'une section de triangulation de 1-ère classe [*Agitur de sectione cuiusdam triangulationis primae classis eiusque exacta aestimatione*]. (En russe). 4 fig., tabl., Gheodesist, 11/12, 72-78. Moskva (1933). **a - 1135**

Exposé d'une méthode de vérification qui permet de calculer une partie de la série de 1-ère classe, d'en évaluer la précision, et, le cas échéant, d'en rectifier les erreurs.

**Weir J.** - Latitude Redetermination and Systematic Errors [*De latitudinis redeterminatione deque erroribus systematicis*]. Journ. Roy. Astron. Soc. Canada, XXVIII, 347-356. Toronto (1934). **a - 1136**

An extensive series of observations with the zenith telescope carried out by author and a number of students in order to examine sources of systematic errors. The individual error and tests applied to differences between one observer and another. Separate discussion of several sources of error.

**West Richard** - The Beginning of the Coast Survey [*De instituto* Coast Survey *deque initio eius operum*]. 3 figs. U. S. Nav. Inst. Proc., LXI, 387, 665-670. Annapolis (1935). **a - 1137**

Brief outline of the early history of the U. S. Navy's greatest peacetime service, the U. S. Coast Survey, which has been founded in 1835, with especial regard to Professor Hassler's activity, as first Superintendant of the Survey.

**Wirtz C.** - Tafel der Weglängen in der homogenen Atmosphäre nach Argument wahre Zenitdistanz [*Tabula cursuum per atmosphaeram homogeneam*]. 1 Taf. Ann. d. Hydrogr., LXIII, 6, 240-241. Berlin (1935). **a - 1138**

1. Bemporads Extinktionstheorie. 2. Umrechnung der Extinktionstafel auf wahre ZD. Tabelle der Weglängen.

**Wyatt A. G. N.** - Surveying Cruises of H. M. S. « Challenger » off the Coast of Labrador in 1932 and 1933 [*De navigatione longe a litoribus Labradoricis, A. 1932 et 1933 regia navi* « Challenger » *peracta ad redigendas adumbrationes topographicas*]. 1 map, 2 photos, Geogr. Journ., LXXXIV, 1, 22-53. London (1934). **a - 1139**

Account of the survey of Labrador's coast between Indian Harbour and Cape Chidley on a scale of 1/75.000, made between June 24th and October 5th, 1932: meteorological and ice conditions during the cruise; life on board of the « Challenger »; description of some important or beautiful spots visited; results of the oceanographic observations carried out during the cruise. Description of the work performed, observations made and results obtained during the second survey cruise of the « Challenger » from July 22nd to November 10th, 1933.

**Zebnitzkij V.** - Fondement pour une tachymétrie de haute précision [*Fundamenta pro tachymetria maximae praecisionis*]. (En russe). 6 fig., Gheodesist, 3/4, 94-98. Moskva (1933). **a - 1140**

Résumé et illustration des idées d'Albert Koenig (sur les raisons et les causes des erreurs angulaires personnelles) qui a été le premier à poser les fondements d'une tachymétrie de haute précision.

**Zvonov V.** - Sur le calcul des termes de rectification dans le calcul « non-logarithmique » de l'ordonnée Gauss-Krüger [*De calculandis notis pro emendatione in computatione non-logarithmica ordinatae* Gauss-Krüger]. (En russe). 2 tabl. Gheodesist, 3/4, 43-48. Moskva (1933). **a - 1141**

Description d'une méthode plus avantageuse, au point de vue de la difficulté et de la rapidité de l'exécution, du terme de rectification pour l'ordonnée de Gauss-Krüger, en comparaison avec les méthodes de calcul existantes.

**Bureau Hydrographique International** - Publications. Distribution [*Publicationes. Distributio*]. (In Engl. & French). Bull. Hydr. Int., V, 88-91. Monaco, Princ. (1934). **a - 1142**

Informations concernant la proposition du Comité de Direction du Bureau Hydrographique International visant à une plus large publicité des publications du Bureau. Résumé des réponses reçues de 14 États-Membres du Bureau.

**Bureau Hydrographique International** - Survey of India. Geodetic Report 1933 [*Relatio geodetica officii cui est nomen* Survey of India]. (In Engl. & French). Bull. Hydr. Int., V, 92-93. Monaco, Princ. (1934). **a - 1143**

Résumé du contenu du rapport publié par le Survey of India de ses travaux pour la période d'Octobre 1932 à Septembre 1933.

**Bureau Hydrographique International** - Report of the Marine Department of the Chinese Maritime Customs 1933 [*Relatio sectionis maritimae pro Sinensibus portoriis maritimis, A. 1933*]. (In Engl. & French). Bull. Hydrogr. Int., V, 93. Monaco, Princ. (1934). **a - 1144**

Résumé du Rapport indiquant les activités de la Section Maritime dans les différents districts côtiers et dans le bas Yangtze–Kjang: détails sur l'hydrographie des ports et de leur aménagement; aperçu sur les levés exécutés; quelques détails sur le port de Changhai; liste statistique des épaves et autres accidents.

**Bureau Hydrographique International** - Navires Hydrographes [*Naves hydrographicae*]. 2 pl. avec 4 phot. Rev. Hydrogr. XI, 2, 16-17. Monaco (1934). **a - 1145**

Quelques données sur l'« Hydrograf » et le « Röst » Norvégiens, le « Moresby » Australien, et le « Nautilus » Hellénique.

**Bureau Hydrographique International** - Sondage par le son — XIII [*De scandaliis per sonum — XIII*]. Rev. Hydrogr., XI, 2, 25-64. Monaco (1934). **a - 1146**

Résumé des perfectionnements les plus récents apportés aux appareils d'après les informations fournies par les constructeurs au Bureau. Dans ce résumé les compilateurs ne reviennent pas sur les principes généraux des appareils qui ont déjà été décrits dans la Revue et ils se bornent à signaler les modifications de détail ou les modifications de composition dans les ensembles.

**Commissione di Toponomastica** - Istruzioni per la raccolta del materiale toponomastico italiano [*Praecepta ad res toponomasticas Italicas colligendas*]. Consiglio Nazionale delle Ricerche. Comitato Nazionale per la Geografia, 15 pp., Tip. dell'Ist. Geografico Militare. Firenze (1935). **a - 1147**

Le presenti « Istruzioni » specificano il metodo di attuazione della Raccolta toponomastica, indicando tutte le esigenze a cui si deve ottemperare per raggiungere i fini proposti alla ricerca.

**Deutsche Gesellschaft für Photogrammetrie** - Mehrsprachiges Wörterbuch für Photogrammetrie [*Lexicon photogrammetricum plurilingue*]. 136, Allg. Vermessungs–Nachr. H. Wickmann. Bad–Liebenwerda, Sachs. (1934). **a - 1148**

**Hydrographic Department of the British Admiralty** - General Instructions for the Hydrographic Surveyors of the Admiralty [*Praecepta generalia ad usum vigilatorum hydrographorum ad classis praefecturam pertinentium*]. 10 pl, 122 pp. 7th Ed. H. M. Stationery Office. London (1933). **a - 1149**

**Hydrographic Department of the British Admiralty** - List of Oceanic Depths Received at the Admiralty During the Year 1934 [*Index profunditatum oceani a classis praefectura receptus, A. 1934*]. Tables. Publ. H. D., 322, 1-19 Admiralty. London (1935). **a - 1150**

North Atlantic - East of 20° W; id. 20° W to 50° W; id. West of 50° W. South Atlantic - West Long. South Atlantic - East Long. Mediterranean. Red Sea. North Indian Ocean. South Indian Ocean. North Pacific East Long. North Pacific West Long. South Pacific East Long. South Pacific West Long. South Ocean - West Long. South Ocean - East Long.

**Hydrographic Department, Tokyo** (1933-34 & 1934-35). [*Tabulae hydrographicae*]. 14 Charts based on original data of the Hydrographic Department of the Japanese Navy. – 7 Charts based on data derived from foreign sources. **a - 1151**

**Hydrographic Office Siam** - Rapports sur les travaux exécutés et projetés [*Opera hydrographica perfecta et perficienda* a. 1934]. Bangkok (1934). **a - 1152**

Travaux exécutés au Siam: A) Levés faits au cours de la période: d'avril 1933 à mars 1934: 1) Levés côtiers; B) Cartes ou Diagrammes publiés en 1933–34: 2) Nouvelle édition des cartes existantes; C) Ouvrages ou publications édités en 1933–34. Travaux projetés: *a*) Levés projetés au cours de la période: d'avril 1934 à mars 1935; *b*) Cartes ou Diagrammes en préparation; *c*) Ouvrages ou publications en préparation.

**Hydrographic Service** - [*Tabulae hydrographicae*]. Bangkok Harbour. I: 10.000. Bangkok (1934-35). **a - 1153**

**Hydrographic Service** - Suiro Yohô (Hydrographic Bulletin) [*Bulletinus hydrographicus*]. Tokyo (1934-35). **a - 1154**

**U. R. S. S. Superior Geodetic Survey** - Working Ephemerides of 500 Pairs of Stars for the Determination of Time by the Method of Corresponding Altitudes (Zinger's Method) [*Ephemerides pro D stellis paribus ad tempus calculandum*]. xxii + 245, x + 251, x + 245, x + 271, 4, Vols. Goskartogeodesia. Leningrad -- Moskva (1932). **a - 1155**

**U. S. Coast & Geodetic Survey** - Field Engineers Bulletin n. 7 – June 1934 – Bulletin des Field Engineers n. 7 – Juin 1934 [*Bulletinus* Field Engineers, *N.* $7^{us}$]. (In Engl. & French). Bull. Hydr. Int., V, 93-94. Monaco, Princ. (1934). **a - 1156**

Extrait de la table de matière du Bulletin contenant la liste des articles particulièrement intéressants au point de vue hydrographique.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Formulas and Tables for the Computation of Geodetic Position. Seventh Edition [*Formulae et tabulae ad geodeticam positionem calculandam. Editio* $VII^{a}$]. 4 figs., 5 tables. Spec. Publ. 8, 4-101. U. S. Govmt. Print. Off. Washington D. C. (1933). **a - 1157**

Introductory remarks. Solution of triangles. Spherical excess. Number of decimal places in angles and lengths. Computation of differences of latitude, longitude, and azimuth. Examples of computation: Computation of triangles, first-order position computation, third-order position computation, inverse position computation, inverse solution, table of arc-sin corrections for inverse position computation. Tables. Appendix: Historical data and development of formulas. Dimensions of the spheroid. Formulas and factors for the computation of geodetic latitudes, longitudes, and azimuths. Development of formula for spherical excess. International ellipsoid.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Logarithms of Numbers to Eight Places [*Numerorum octodecimalium logarithmi*]. 180 tables. U. S. Govmt. Print. Off. Washington D. C. (1934). **a - 1158**

**U. S. Department of Commerce. Coast and Geodetic Survey** - Table of S and T Values to Ten Places [*Valorum decadecimalium pro* T *et* S *tabulae*]. Table, 45 pp., U. S. Govmt. Print. Off. Washington (1934). **a - 1159**

**An.** - Travaux de l'Institut Central de Recherche Scientifique pour la Géodésie, les levés aériens et la cartographie, accomplis au cours de la réalisation du Premier Plan Quinquennal Soviétique [*De operibus peractis ab Instituto Centrali Investigationum Scientificarum pro Geodesiam, aërioadumbrationibus et cartographia, prima quinquennali ratione Sovietica perdurante*]. (En russe). Gheodesist, 7/8, 10-13. Moskva (1933). **a - 1160**

Liste des travaux dans le domaine de: A. La construction d'instruments: I. Géodésiques. II. Aérophotogéodésiques. B. L'élaboration des instructions pour l'exécution des travaux topographiques et géodésiques. C. Travaux scientifiques dans le domaine de la géodésie. D. Travaux scientifiques cartographiques. III. Rédaction scientifique des cartes, élaboration du programme et de méthodes cartographiques. E. Travaux dans le domaine de la standardisation. F. Travaux pour l'élaboration des projets d'instruments: I. Géodésiques. II. Aérophotogéodésiques.

**An.** - Hydrographic Office – Denmark. – Service Hydrographique – Danemark [*Servitium hydrographicum – Dania*]. Int. Hydr. Bull., VI, 102, Monaco, Princ. (1934). **a - 1161**

Summary of a booklet published with the title Det Kongelige Danske Søkort-arkiv 1784, 22 Oktober 1934, retracing the history of the Danish Hydrographic Office.

**An.** - Oceanographical Work Carried Out – Travaux Océanographiques [*De operibus oceanographicis peractis*]. (In Engl. & French). Int. Hydr. Bull., VI, 102. Monaco, Princ. (1934). **a - 1162**

Brief account on hand of an article by Rear Admiral W. R. Gherardi on « The Hydrographic Activities of the Hydrographic Office and the United States Navy during April 1933 to April 1934 » published in the « Transactions of the American Geophysical Union ».

**An.** - Woods Hole Oceanographic Institution. Annual Report 1933 – L'Institution Océanographique de Woods Hole. Rapport Annuel 1933 [*Institutum oceanographicum in* Woods Hole. *Relatio annua. A. 1933*]. (In Engl. & French). Int. Hydr. Bull., VI, 106-107. Monaco, Princ. (1934). **a - 1163**

To complete the data of an article concerning the organisation of and the various works undertaken by the Woods Hole Oceanographic Institution and published in « Hydrographic Review », XI, 1, p. 110, a few extracts are given from the Annual Report, 1933, published recently by this Institution.

**An.** - Shoal Fathometer. – U. S. A. – Fathomètre pour petits fonds – Etats Unis. [*Fathometron pro vadis demissis*]. (In Engl. & French). Int. Hydr. Bull., VI, 109. Monaco, Princ. (1934). **a - 1164**

Information on a shoal fathometer whose development has been recently completed by the research section of the U. S. Coast and Geodetic Survey.

**An.** - Hydrographic Surveys, East and West Coasts of the United States of America – Levés hydrographiques de côtes Est et Ouest des Etats–Unis d'Amérique [*De hydrographicis adumbrationibus litorum orientalium et occidentalium Americae Statuum Foederatorum*]. (In Engl. & French). Int. Hydrogr. Bull., II, 28-29. Monaco, Princ. (1935). **a - 1165**

Account of the work of survey parties of the Coast and Geodetic Survey engaged in combined operations from Maine to the Florida Keys on the Atlantic coast and from Mobile to the Mexican border on the Gulf coast, of a new edition of the inland waterway charts from Norfolk to Key West, the offshore surveys on the Maryland and Virginia coast, along the California coast around the Santa Barbara Islands, and in the Aleutian Islands.

**An.** - Hydrographic Expedition Along the Coasts of Provence – Mission hydrographique des Côtes de Provence [*Navigatio hydrographiae causa ad litora Provincialia*]. (In Engl. & French). Int. Hydrogr. Bull., II, 31. Monaco, Princ. (1935). **a - 1166**

Information on a hydrographic expedition on board the tug « Bagaud » on which the sounding apparatus mentioned in « Int. Hydrogr. Bull. », III, 63, 1934, is used.

**An.** - Shoal. – North Atlantic Ocean. Ampère Bank – Haut–fond – Océan Atlantique Nord – Banc de l'Ampère [*Fundus peraltus. Oceanus Atlanticus septentrionalis. Banchus* Ampère]. (In Engl. & French). Int. Hydrogr. Bull., II, 33-34. Monaco, Princ. (1935). **a - 1167**

Extract from the « C. R. Ac. Sc. », 8th April, 1935, in which an account is given of the cruise of the French Cable-Ship « Ampère » made in order to ascertain the depth in the neighbourhood of the break of the telegraph cable from Brest to Casablanca, which had broken at a point about 275 miles W. N. W. of the latter port. The vessel found a very remarkable bank in Lat. 35°04′ N., Long. 12°54′ W. near the break of the cable.

**An.** - Velocity of Sound in Sea Water – Vitesse du son dans l'eau de mer [*De soni velocitate per aquam marinam*]. (In Engl. & French). 1 table, Int. Hydrogr. Bull., II, 36. Monaco, Princ. (1935). **a - 1168**

Brief account of a publication issued by the Netherlands Geodetic Commission (Rijkscommissie voor Graadmeting en Waterpassing) and representing the Volume II of the General Report on Gravity Measurements at Sea from 1923 to 1932 under the direction of Professor F. A. Vening Meinesz. The volume contains a remarkable bathymetric chart of the whole of the Netherlands East Indies Archipelago. In the present note a Table for the velocity of sound in Sea Water, used for the echo soundings made during the cruise, is reproduced.

**An.** - Geographical Positions – Positions géographiques [*Positiones geographicae*]. (In Engl. & French). Int. Hydrogr. Bull., II, 37. Monaco, Princ. (1935). **a - 1169**

Text of an Addition to Special Publication n° 24 of the I. H. B., Part I, April 1930, p. 54; representing Table II. Geodetic positions determined in connection with the hydrographic work carried out in the Colony of Mozambique, Portugal. (Extr. from « Aviso aos Navegantes », n° 2, 17th January 1935, Lisbon).

**An.** - Survey of Approaches of Fedhala Harbour – Levé des abords du Port de Fédhala [*Accessus ad portum* Fedhala. *Adumbratio hydrographica*]. (In Engl. & French). Int. Hydrogr. Bull., III, 31. Monaco, Princ. (1935). **a - 1170**

Brief account of a report recently issued by the Service Hydrographique of the French Navy, in the form of a pamphlet, extracted from the Annales Hydrographiques, 1934, on the 1934 hydrographic survey of the approaches of Fedhala Harbour, Morocco, by the French S/V « Beautemps-Beaupré ».

**An.** - Baffin Island Survey [*Adumbratio hydrographica Insulae* Baffin]. Nature, CXXXV, 3407, 261. London. **a - 1171**

Some interesting information respecting the operations of the Canadian Hydrographic Service during the fiscal year 1933–34, with special regard to a survey of the Baffin Island coast, of which a partial description is given.

**An.** - Soins à donner aux instruments [*De curis et diligentiis instrumentis praebendis*]. Rev. Hydrogr., XI, 2, 206-207. Monaco (1934). **a - 1172**

Notes extraites des instructions données par le Coast & Geodetic Survey au sujet des instruments de levé. Ces notes sont à leur tour extraites de The Military Engineer No 147, Mai–Juin 1934, p. 230, Washington.

**An.** - Entfernungsmessungen mit der Wildschen Invar – Basislatte [*De distantiae mensuris, reguli* Jnvar *auxilio peractis*]. Rev. d'Optique, Jan. 22-23. Paris (1934). **a - 1173**

**An.** - Eine neue Teilstrichenstellung an Feinnivellieren [*Dispositio nova ad livelli graduationes legendas*]. Ztschr. f. Vermessungswesen, Apr., 157-158. Berlin (1934). **a - 1174**

## Chartographia - Atlantes – Portulani.

**Adams Oscar S.** - General Theory of Polyconic Projections [*Theoria generalis proiectionum polyconicarum*]. 48 figs., 1 chart, tables. Dpt. Comm. U. S. Coast & Geod. Surv. Spec. Publ. 57, 2-174. U. S. Covmt. Print. Off., Washington D. C. (1934). **a - 1175**

Attempt to gather into one volume all the investigations that apply to the system of polyconic projections. After the determination of ellipsoidal expressions, the development of general formulas for the polyconic projections, and their classification, author treats the rectangular polyconic and the stereographic meridian projections, as well as the double circular projection. He then illustrates Nicolosi or globular projection, those of P. Fournier, the ordinary or American polyconic projections, the Tissot's indicatrix. In the last part of his work he gives tables of elements of the ordinary, or American, polyconic projection, illustrates the transverse polyconic projection and reproduces a projection for the international map on the scale of 1: 1.000.000, adding at the end tables for the projection of the sheets of the international map of the world.

**Adams O. S.** - Map Projections [*Proiectiones ad tabulas delineandas*]. Journ. Wash. Acad. Sc. XXIV, 5. Washington (1934). **a - 1176**

The A. describes a series of his own solutions of the problem of providing more accurate graticules of geodetic work.

**Ahlmann W: son Hans** - The Cartography of the Coast–Districts of North–East Land and its Environments (The Swedish–Norwegian Arctic Expedition 1921) [*De chartographia litorea ad Terram Nordorientalem* (East Land *in* Spitsbergen) *pertinente. Navigatio a Suetiis Norvegisque ad regiones arcticas peracta A. 1931*]. 10 figs, Geogr. Ann. XV, 1, 9 – 23. Stockholm (1933). **a - 1177**

History of the discovery and mapping of Spitsbergen from the end of the 16th century to present time. Appendices are added concerning the Russian and Norwegian whaling in these regions, and the map of North-East Land, by the Swedish-Norwegian Arctic Expedition, scale 1 : 750000. Pl. II.

**Almagià Roberto** - Il Planisfero di Arnoldo De Arnoldi (1600) [*De Planisphaerio ad Arnoldum* de Arnoldi (*1600*) *pertinens*]. (Pubblicazioni dell'Istituto di Geografia della R. Università di Roma). Serie B, n. 2, 13 pp., 1 cart. f. t. Roma (1934). **a - 1178**

La « Descrittione universale della Terra » è la prima delle carte fatte dell'Arnoldi a Siena e pubblicata nel 1060 da Matteo Florimi. Si accenna ai caratteri esteriori della carta, e la si mette in rapporto con altri due planisferi, di contenuto molto analogo e di identica proiezione (cilindrica quadrata): uno, forse il più antico, uscito dalle officine dei de Jode, ad Anversa, l'altro, di Pietro Plancio, edito ad Anversa nel 1592.

**Bernard Augustin & De Flotte De Roquevaire R.** - Atlas de l'Algérie et de Tunisie [*Atlas Algariae et regionis Tunetanae*]. Fasc. IX, X, XI, XII & XIII. Serv. Cartogr. Gouv. gén. Algérie, Emile Larose. (Paris (1929, 1932, 1933). **a - 1179**

**Cahill B. J. S.** - A World Map to end World Maps [*Orbis Tabula fundamentalis ad omnes mundi tabulas delineandas*]. 4 figs., Geogr. Ann., XVI, 2/3, 97-108. Stockholm (1934). **a - 1180**

Difficulties met with in an adequate mapping of the world. Principles to base the design on, first of all decentralization. Description of three variants within the decentralized octahedral frame (with figures). In an addendum follows a description of another sub-variant type of the orthomeric Butterfly map in which the five zones can be shown completely by replacements of *one* octant diagram.

**Camotius Joan Franciscus** - A Large World Map Dated 1569 Sold at the Sign of the Pyramid in Venice [*Magna orbis tabula A. 1569 in bibliopolio cuius nomen* « *Signum Pyramidis* » *Venetiis vendita*]. 12 sheets. Philadelphia (1933). **a - 1181**

Now in the George H. Beans Library. Reproduction in 12 sheets of the map of Camotius described by R. Almagià. Afterwards another copy of that map was discovered in the National Library of Madrid by Wider. See: Geogr. Journ. Suppl. 44. Nov. London (1933).

**Close C. F.** - A Double Equidistant Projection of the Sphere [*Agitur de quadam proiectione a sphaera dupliciter aequidistante*]. Geogr. Journ., LXXXIII, Febr., 144-145. London (1934). **a - 1182**

**Close Charles** - The « Carte du Monde au Millionième » [*Orbis Tabula milionesimo gradu*]. Geogr. Journ., LXXXIII, 4, 323-324. London (1934). **a - 1183**

Some information on the latest progress of the elaboration of the « Carte du Monde au Millionième »; the sheets lately published.

**Crinò Seb.** - Carte e piante inedite del secolo XVII riguardanti l'isola di Ceylon rinvenute nel Palazzo Pitti, nel Museo degli Strumenti antichi di Firenze e nel British Museum di Londra [*Tabulae et chartae ineditae sec. XVII insulae Ceylonensis in aedibus* Pitti, *in Museo Florentino instrumentorum veterum, in Londiniensi* British Museum *repertae*]. 4 carte, piante olandesi. La Bibliofilia, 1. Firenze (1934). **a - 1184**

**Deetz Ch. H. & Adams O. S.** - Elements of Map Projection with Application to Map and Chart Construction [*Proiectionis chartographicae elementa cum applicationibus ad tabulas elaborandas maritimas et terrestres*]. 79 figs., 10 pls., num. tables. U. S. Dpt. Comm. Coast & Geod. Surv. Sp. Publ. 68, 4th Ed., 1-200. Washington D. C. (1934). **a - 1185**

The first part of the book treats the theoretical side in a form that is as simple as the authors could make it; the second part attacks the subject of the practical construction of some of the most important projections. There is also added a résumé of the systems of map projection which are of special interest in problems of the present day.

**Fester Gustav** - Lamberts Projektion in Anwendung auf den 4., 5., 6. und 7. Erdteil. [*De Lambertiana proiectione ad IVam, Vam, VIam, VIIam Terrae partes applicata*]. 1 Abb. Peterm. Mitt, LXXX, 1, 6-7. Gotha (1934). **a - 1186**

Nachteile der gebräuchlichen Merkatorprojektion. Vergleich zwischen der Merkatorprojektion und Lamberts Projektion. Die mathematische Ableitung von Lamberts Projektion nach der Darstellung von Bouassé.

**Fontoura da Costa** - As Cartas de Marear [*Tabulae nauticae*]. Anais do Club Militar Naval, 5-63. Lisboa (1934). **a - 1187**

Étude sur les cartes de navigation anciennes. Étude, détaillée de la mappemonde de Mercator de 1519. Articles bibliographiques.

**Gackel J. J.** - Matériaux sur la cartographie de la Mer de Kara. I-ère Partie [*Res collectae pro chartographia maris* Kara]. (En russe). 5 tabl., Trudy Arkt. Inst. (Trav. Inst. Arct.), X, 175-207. Léningrad (1933). **a - 1188**

Résultats scientifiques de l'expédition du brise-glace « Sibirjakov ».

**Guarnieri Giuseppe Gino** - L'Atlante nautico di Pietro Cavallino e una scuola cartografica livornese [*Agitur de Atlante nautico Petri* Cavallino *deque schola chartographica liburnica*]. Liburni Civitas, V, 83-95. Livorno (1933).

(—) Livorno e il tramonto della Cartografia Nautica Medievale [*Portus Liburnus pro chartographiae nauticae medioaevalis occasu*]. Boll., 11 nov. 1932, Consiglio Provinciale dell'Economia Corporativa di Livorno. 4 pp., carte. Livorno (1933). **a - 1189**

**Guerne (de) Jules** - Présentation de trois cartes [*Tabulae tres nauticae*]. Résult. Camp. Scient. accomplies par Albert I, Prince Souverain de Monaco, fasc. LXXXIX, 374-376. Monaco (1934). **a - 1190**

Ces cartes concernent les résultats scientifiques des campagnes de l'Hirondelle (1885-1888) et doivent prendre place dans la publication destinée à faire connaître ces résultats de la goélette.

**Haack Herman** - Die internationale Ausgabe von Stielers Handatlas [*De internationali editione Atlantis Stielerii*]. Peterm. Mitt., LXXX, 9, 262. Gotha (1934). **a - 1191**

Diese Ausgabe « Stieler, Grand Atlas de Géographie Moderne » ist keineswegs eine Neuaufgabe sondern eine dem internationalen Zweck streng angepasste Bearbeitung der deutschen Hundertjahr-Ausgabe. Erweiterungen und Ergänzungen. (S. auch Peterm. Mitt. LXIX, 1/2, 7-16; LXX, 1, 9-20) sowie Rez. von Schokkenkamp in Tijdschr. Kon. Ned. Aardr. Gen., 1, 108-109, 1935).

**Kimble George H.** - Some Notes on Mediaeval Cartography, with Special Reference to Behaim's Globe [*Nonnulla de chartographia medioaevali. Agitur particulatim de sphaera ad* Behaim *pertinente*]. Scott. Geogr. Magaz., XLIX, March 15, 91-98. Edinburgh (1933). **a - 1192**

**La Roncière (Ch. de) A.** - Une nouvelle carte de l'Ecole cartographique des Juifs de Majorque [*Charta nova ad scholam chartographicam hebraicam Baleari Maiore pertinens*]. Bull. Sect. de Géogr. du Minist. Educ. Nat., XLVII, 113-118. Paris (1932). **a - 1193**

**Ljoubvin N. I. & Gackel J. J.** Sous la réd. de **Samoilovitsch R. L. & Roudnev D. D.** - Carte de l'Arctique [*Regionum arcticarum tabula*]. Ed. Inst. Arct. URSS, Leningrad (1934). **a - 1194**

Une carte des régions polaires à l'échelle de 1:10.000.000, publiée par l'Institut Arctique de l'URSS.

**Manley Gordon** - The Plancius Map of England, Wales, and Ireland, 1592 [*Angliae, Valliae, Hiberniae tabula A. 1592 ad* Plancius *pertinens*]. Geogr. Journ., LXXXIV, 3, 252-253. London (1934). **a - 1195**

A brief description of a copy of the Plancius Map, of which only one other example appears to be known, which has been found in Bishop Cosin's Library at Durham. Size and other pecularities of the Map. Numerous additions made concerning the coast. Differences between the Plancius Map, and those of Ruther, Saxton and Boazio. Information about other sources used by Plancius.

**Medina (de) Pedro** - El primer mapa del Atlántico, reproducido del Regimento de navegacion, de — [*De priore mappa Oceanum Atlanticum repraesentante*]. 1 pl., 1 facsimile, Bol. Soc. Geogr. Nac. LXXIII, Mayo. Madrid (1933). **a - 1196**

**Myhre J. F.** - Handbook of the Baltic and White Sea Loading Ports including Denmark and Norway [*Liber manualis de portibus mercatoriis Maris Baltici et Maris Albi, Dania et Norvegia inclusis*]. 929 pp., J. Jørgensen & Co., Copenhagen (1935). **a - 1197**

**Philip (Edit)** - Philip's Centenary Mercantile Marine Atlas [*Atlas mercatorius centenarius maritimus* Philip *edidit*]. 44 pl., 220 charts & plans. George Philip & Son Ltd. London (1935). **a - 1198**

Specially designed for merchant shippers, exporters and ocean travellers. Thirteenth and enlarged edition.

**Pobedonostzev D.** - Carte de la Région du Nord [*Tabula regionis nordicae*]. (En russe). 1 carte, Sov. Sever, 4, 125-126. Moskva (1934). **a - 1199**

Description et reproduction d'une carte élaborée par la Commission Polaire de l'Académie des Sciences de l'URSS sur la base de tous les matériaux cartographiques disponibles jusqu'à 1932 y-inclus.

**Poole H.** - An oblique Cylindrical Equal Area Map [*Tabula cum superficiebus aequivalentibus et proiectione cylindrica obliqua*]. Geogr. Journ., LXXXIII, Febr., 142-143. London (1934). **a - 1200**

**Putnins R. V.** - Jaunas Projekcijas Pasaules Karten [*Proiectio nova ad mundi mappam delineandam*]. Geogr. Raksti, III & IV, 180-209. Riga (1934). **a - 1201**

**Ravu H.** - Det Kongelige Danske Søkort Arkiv 1784-1934 [*Regium Archivum chartographicum Danicum*]. Ill., 83 pp., Søkort Arkiv. København (1934). **a - 1202**

**Santoni E.** - Lo stereocartografo Santoni [*De stereochartographo* Santoni]. (Modello II). Riv. del Catasto e dei Serv. Tecn. Erar., 12 fig., I, 3., 216-229. Roma (1934). **a - 1203**

Lo Stereocartografo è uno strumento restitutore per fotogrammetria in quanto permette di ricavare dalle fotografie stereoscopiche del terreno la rappresentazione planimetrica ed altimetrica di queste, secondo le norme della cartografia. L'istrumento è del tipo cosidetto universale essendo atto alla restituzione di prese eseguite sia dall'aeroplano sia da terra.

**Schott G.** - Norwegische Seekarten der antarktischen Gewässer [*Tabulae maritimae norvegicae marium antarcticorum*]. Ann. d. Hydrogr., LXIII, 3, 124-125. Berlin (1935). **a - 1204**

Beschreibung der für die Hvalfangernes Assuranceforening in Snadefjord vom Kapt. H. E. Hansen bearbeiteten vier grossen Kartenblätter im Masstab 1:5.000.000 (60° S-Br.) in Merkatorprojektion, die, jeweils von 50° bis 73° S-Br. reichend, zusammen das subpolare und das sudpolare Meer rings um die Erde darstellen.

**Steinberg S. S.** - Mapping from the Air [*De tabulis perdurante navigatione aëria elaboratis*]. Sc. Monthly, April, 363-366. New York (1935). **a - 1205**

Opportunity given by the aviation to survey and map large areas of the earth's surface at great savings in time and cost. Main characteristics of an air map: its accuracy. Last development of aerial mapping. Brief description of the aerial mapping camera. The stereoscopic use of aerial photography. Employ of air mapping in the United States.

**Steppes O.** - Das Netz der Seekarte (Merkatorkarte) [*Tabula Mercatoriana*]. 2 Taf., Seewart, III, 6, 255-259. Hamburg (1934). **a - 1206**

Nachdem Vf. ausdrücklich betont hat, wie oft man als Ableitungen geometrischer Eigenschaften der Loxodrome und der Seekarte Betrachtungen liest, die einer strengen Kritik nicht standhalten, gibt er in der vorliegenden Notiz eine einfache Bekanntmachung, was mit elementaren Mitteln bewiesen werden kann und was nicht.

**Vera V.** - Huellas de un mapa perdido de Colón [*Agitur de vestigiis cuiusdam amissae tabulae ad* Colón *pertinentis*]. Vida Maritima, XXXIII, Enero–Fevrero. Madrid (1934). **a - 1207**

**Verstelle J. T.** - De Schaal van de Kaart [*De schala tabularum*]. De Zee, 267-271. den Helder (1934). **a - 1208**

**Waart (de) D.** - De schaal van de kaart [*De schala tabularum*]. De Zee, 84. den Helder (1934). **a - 1209**

**Wieder F. C.** - Monumenta Cartographica. Vol. IV & V. Martinus Nijhoff. 's–Gravenhage (1932–33). **a - 1210**

Reproductions of unique and rare maps, plans and views in the actual size of the originals accompanied by cartographical monographs. These two volumes complete the first series of Dr. Wieder's great cartographical collection; the maps reproduced are drawn from two sources, i. e. the « Vingboons Atlas » and « Secret Atlas » of the Dutch East India Company. The volumes are accompanied by very thorough introductions, notes on sources, and bibliographical details.

**Wilson W. Eric** - The Pilot's Guide to the Thames Estuary and the Norfolk Broads, for Yachtsmen [*Liber ad navigandum per flumen Tamesim et longe a litoribus regionis in usum* Norfolk *pamphiliariorum*]. Ills., charts, x + 394 pp., Imray, Laurie, Norie & Wilson. London (1934). **a - 1211**

The present is more than a pilot's guide: it has an historical introduction based on a series of articles in the « Mariner's Mirror », and contains a useful summary of the byelaws of the Port of London Authority. Besides there are useful chapters on elementary navigation, details of tides, etc.

**Bureau Hydrographique International** - E. D. P. D. and P. A. Dangers. – Dangers E. D. P. D. et P. A. [*Periculorum positiones*]. (In Engl. & French). Bull. Hydrogr. Int., V, 94-95. Monaco, princ. (1934). **a - 1212**

Renseignements reçus par le Bureau Hydrographique International apportant des corrections aux informations existantes.

**Geodetic Institute of Denmark** - Map of North Greenland [*Groenlandiae septentrionalis tabula*]. 18 sheets. Geod. Inst. Denmark. Copenhagen (1932). **a - 1213**

Map of North Greenland, scale 1 : 300.000, surveyed by Lauge Koch in the years 1917-1923, showing the geography, sounds, fiords, glaciers, lands, etc.

**Gheodesitscheskoje Oupravlenije (Bureau géodesique)** - La région du Nord [*De nordica regione*]. 1 carte, 1 feuille, Arkhangheljsk (1933). **a - 1214**

Carte de la région du Nord avec nomenclature internationale et nomenclature d'ordre. Projection Hauss-Krüger. Echelle 1 : 50.000; sans relief.

**Ghidrografitcheskoje Oupravlenije (Bureau Hydrographique)** - La Rousskaja Gavanj (Port Russe) sur la Novaja Zemlja [*De* Russkaja Gavanj *in* Novaja Zemlja]. (En russe). 1 carte. Carte n. 1144, 1 · 25.000, 1 feuille. Leningrad (1933). **a - 1215**

**Ghidrografitcheskoje Oupravlenije (Bureau Hydrographique)** - La rive occidentale de la Mer de Barents, de l'Ile Karatchinskij au liman d'Anadyrj [*De litoribus orientalibus Maris* Barentz *ab insula* Karatschinskij *ad Sinum* Anadyrj]. (En russe). 1 carte. Carte n. 1167, 1 : 1.200.000, 1 feuille. Leningrad (1933). **a - 1216**

**Ghidrografitcheskoje Oupravlenije (Bureau Hydrographique)** - Catalogue des Livres et des Cartes. Corrigé jusqu'au 1 juillet 1933 [*Index librorum et chartarum ad diem 1 mensis Julii A. 1933 correctus*]. (En russe). 11 cartes, 84 pp. Leningrad (1933). **a - 1217**

L'Océan Arctique (p. 16-19), la Mer de Barentz, (p. 30-32). L'Océan Arctique et la Mer Blanche (p. 42-43) bibliographie et tableaux.

**Hydrographic Office (U. S. A.)** - [*Portulani*]. Washington D. C. (1934).

Dynamic Oceanographic Data. H. O. N. 212.

Sailing Directions. – Instructions Nautiques.

Pacific Island, vol. II, 4th. Ed., 1933. H. O. N. 166.

South Coast of England, 3rd. Ed., 1934. H. O. N. 144.

Ireland 3rd Ed., 1934. H. O. N. 146. **a - 1218**

**Hydrographic Office (U. S. A.)** - [*Tabulae hydrographicae*]. Washington D. C. (1934).

(—) Gulf of Panama. 1 : 290.372.

(—) Puntarenas & Approaches. Costa Rica. 1 : 30.000.

(—) Nipe, Levisa, & Cabonico Bays. Cuba. 1 : 30.000.

(—) Puerto Tanamo. Cuba. 1 : 15.000.

(—) Puerto Gibara to Cayo Moa Grande Cuba. 1 : 145.727.

(—) The Panama Canal. 1 : 40.000.

(—) Gulf of Paria, Venezuela. Trinidad. 1 : 175.000.

(—) Punta Quepos Anchorage. Costa Rica. 1 : 30.000.

(—) Norfolk. Va. - Eastport, Me. – St. John, N. B. (Air chart – Carte aéronautique). **a - 1219**

**International Hydrographic Bureau - Bureau hydrographique international** - New Charts - Cartes nouvelles [*Tabulae novae*]. (In Engl. & French). Int. Hydrogr. Bull. II, 41-43. Monaco, princ. (1935). **a - 1220**

Brief account of the new charts received by the I. H. B., with special reference to the new chart n° 453 issued by the Canadian Hydrographic Service, Fog Island to Curlew Point, the three new sheets of the Western Mediterranean published by the Istituto Idrografico of the Royal Italian Navy at Genoa and of the Circular-Letter n° 2-H of 26th March 1935, sent by the I. H. B. to the Hydrographic Offices of the States Members, containing a new form for reporting soundings taken off the continental shelves.

**Ist. Geogr. De Agostini** - Novara (1935). Imperium Populi Romani ab anno CCXLI ad annum circiter CL p. C. n. Modulus 1 : 3 500 000. **a - 1221**

**Istituto idrografico della R. marina** - Coste di Libia, Egitto, Palestina, Siria e Caramania, Isola di Cipro [*Litora Libyca. Aegyptus, Palestina, Syria, Caramania, Cyprus*]. (Supplemento n. 2 al volume 8º del Portolano del Mediterraneo). N. 3062, anno 1934, 38 pp. Tip. dell'Ist. Idr. della Regia Marina. Genova (1934). **a - 1222**

**Istituto idrografico della R. marina** - Portolano del mediterraneo: Coste d'Italia da Capo Santa Maria di Leuca a Duino, incluse le Isole Tremiti, Pianosa e Pelagosa [*Litora Italica. A* Capo Santa Maria di Leuca *ad* Duino. *Insulis* Tremiti, Pianosa *et* Pelagosa *inclusis*]. (Seconda edizione), n. 3016. Suppl. n. 2 al vol. 4º del Portolano del Mediterraneo 1-46. Genova (1934). **a - 1223**

**Istituto idrografico della R. marina** - Supplemento all'elenco dei Fari, Fanali e segnali da nebbia [*Indices farorum, lanternarum et signorum ad caliginem vitandam. Supplementum*]. (Mediterraneo, Mar Nero. Mar d'Azof, Mar Rosso, Golfo d'Aden e Costa orientale d'Africa fino a Zanzibar). 80 pp., Tip. dell'Ist. Idrografico della Regia marina, Genova (1935). **a - 1224**

**Magistrato alle acque - Ufficio idrografico** - Carta della Laguna di Venezia [*Tabula lacunae Venetiarum*]. Scala 1 : 5000 Pubbl. n. 134, fig. 16, n. t. e tav. 4 f. t., 43 pp., Istituto Poligrafico dello Stato. Roma (1934). **a - 1225**

Carte precedenti della Laguna. Necessità della Nuova Carta. Scelta della scala. Inquadramento del lavoro. Triangolazione. Livellazione geometrica. Dati mareometrici. Rilevamento planimetrico ed altimetrico delle zone emergenti. Rilevamento delle zone sommerse. Indicazione dei quadri e delle sezioni. Toponomastica. Planimetratura della superficie della Laguna.

**Marineleitung** - Handbuch für Island, die Färöer und Jan Mayen. 4. Aufl. [*Liber ad navigandum. Islandia, Insulae* Faroer *et* Jan Mayen. *Editio IV*$^{a}$]. 283 Abb., 49 Kart, xv + 436 S., Mittler u. Sohn. Berlin (1934). **a - 1226**

Dies Handbuch ersetzt die beiden früheren Seehandbücher über Island und die Färöer mit hingefügten Angaben über Jan Mayen. In besonderen Abschnitten werden die sehr veränderliche Missweisung in diesen Gebieten sowie die Strömungen behandelt. Ein Teil ist der Seefischerei geeignet mit Anleitung zur Deviationsbestimmung nach Landmarken und zur Ortsbestimmung von Fischbojen und Landmarken.

**Ministerio das Colonias. Comissão de Cartografia** - Oceano Atlantico Norte. Archipelago de Cabo Verde. Carta da Ilha de S. Jago. 1:500.000. [*Oceanus Atlanticus Septentrionalis. Archipelagus* Cabo Verde. *Tabula insulae* S. Jago]. Lisboa (1932). **a - 1227**

**Service hydrographique français** - Carte n. 10102 des épaves [*Tabula navicularum naufragatarum N. 10102*]. 1 carte. Serv. Hydrogr. Paris (1934). **a - 1228**

Nouvelle édition de la carte n° 10102 donnant les positions des épaves à proximité des côtes françaises, faisant partie de la série des cartes 10101, 10102, 10103, 10104 et 10106 donnant la situation des épaves pour les côtes de la France.

**Sjökarteverket** [*Tabulae nauticae*]. Stockholm (1934).

(—) Kattegatt, inloppen till Göteborg. 1 : 50 000. Special över Drogden. 1 : 55 000.

(—) Stockholms skärgård. Dalarö– Landsort. 1 : 50 000.

(—) Stockholms och Öregrunds skärgårdar, Simpnäsklubb - Söderarm - Växlet och Svartklubben - Edeboviken. 1 : 50 000.

(—) Östersjön, Landsort - Nyköping -Arkö. 1 : 50 000. **a - 1229**

**U. S. Department of Commerce** - Maps of Latin America [*Tabula Americae Latinae*]. Miscellaneous Series, Bureau of Foreign and Domestic Commerce. Washington D. C. (1932). **a - 1230**

**U. S. Department of Commerce. Coast & geodetic Survey** - Tables for a Polyconic Projection of Maps and Lengths of Terrestrial Arcs of Meridian and Parallels Based Upon the Clarke's Reference Spheroid of 1866. Fifth Edition [*Tabulae ad proiectionem polyconicam chartographicam delineandam. Agitur etiam de arcuum terrestrium longitudinibus, meridianorum et parallelorum ex sphaeroide* Clarke *A. 1866. Editio V*ª]. Tables. Spec. Publ. 5, 3-189. U. S. Govmt. Print. Off. Washington D. C. (1930). **a - 1231**

These tables were published as Appendix 6 to the Coast and Geodetic Survey Report for 1884, and a Special Publication nº 5 in 1900. The constant demand for the tables has necessitated the present edition, in which the tables remain the same as those in the other editions, while the introduction is only slightly different from that of the second edition.

**U. S. Department of Commerce. Coast and Geodetic Survey** - Catalogue of U. S. Coast and Geodetic Survey Nautical Charts, Coast Pilots, Tide Tables, Current Tables, Tidal Current Charts, Airway Maps [*Index tabularum nauticarum, portulanorum, aestuum tabularum, currentiarum et viarum aëriarum*]. Charts & tables. 60 pp. U. S. Govmt. Print. Washington D. C. (1934). **a - 1232**

This catalogue lists information regarding items sold by the Coast and Geodetic Survey of the Department of Commerce. Nautical charts are grouped in the following order: Atlantic and Gulf coasts, Puerto Rico, Virgin Islands, the Canal Zone, the Pacific coast, Alaska, the Hawaiian and Guam, and the Philippine Islands.

**U. S. Government Printing Office** - Maps [*Tabulae*]. 10 pp., Washington D. C. (1935). **a - 1233**

List of maps published by the U. S. Government Printing Office, showing the state of their stock at the time of going to press.

**An.** - Austgrönland. Eirik Raudes Land fra Sofiasund til Youngsund. [*Groenlandia Orientalis. Terra* Eirik Raudes *a* Sofiasund *ad* Youngsund]. Norges Geogr. Opmaaling, 1 f., Oslo (1932). **a - 1234**

1 feuille en couleurs au 200.000-ème.

**An.** - Anais Hidrograficos. Tomo II [*Annales hydrographici. Tomus II*]. Imprensa Nacional. Rio de Janeiro (1934). **a - 1235**

**An.** - The Edition of a Hypsometrical Map of the Arctic [*Chartae hypsometricae regionis Arcticae editio*]. (In Russ. & Engl.). Bull. Arct. Inst., 6/7, 275 & 296. Leningrad (1934). **a - 1236**

Information on the finishing of the plotting of a hypsometrical map of the Arctic to which new material has been added, gathered during surveys carried out by the Arctic Institute on the Chukchee Peninsula, the coast of the East Siberian Sea and on Novaja Zemlja.

**An.** - International Edition of Stieler's Handatlas – Edition internationale du Handatlas de Stieler [*Atlantis Stielerii editio internationalis*]. (In Engl. & French). Int. Hydr. Bull., VI, 114. Monaco, Princ. (1934). **a - 1237**

Information on hand of a notice which appeared in « Petermanns Mitteilungen » nº 9 of 1934, according to which two editions of Stieler's Handatlas will be published henceforth, viz: a German Edition and an International Edition.

**An.** - Views and Sketches on Charts – Vues de côtes et silhouettes données sur les cartes [*Litorum conspectus et tabularum adumbrationes*]. (In Engl. & French). Int. Hydrogr. Bull. II, 35. Monaco, Princ. (1935). **a - 1238**

Text of the order recently issued in Great Britain by the Hydrographer of the British Navy with a view to facilitate the rapid location of positions of views and sketches which appear on British Admiralty charts.

**An.** - Steamer Tracks on Charts - Indication sur les cartes des routes de navigation à vapeur [*Viae maritimae pyroscaphorum in tabulis determinatae*]. (In Engl. & French). Int. Hydrogr. Bull., II, 35–36. Monaco, Princ. (1935). **a - 1239**

**An.** - Map of the Roman Empire [*Imperium Populi Romani. Tabula*]. Nature. CXXXIV, 3395, 807. London (1934). **a - 1240**

Short note of this International Map to 1,000,000, covering the greater part of Scotland North of the Firth of Forth. Latin and modern names.

**An.** - Modèle type d'avis aux navigateurs [*Exemplum signalationis ad usum navigatorum*]. Rev. Hydrogr. XII, 1, 8–13. Monaco, princ. (1935). **a - 1241**

Proposition faite par le Comité de Direction du Bureau Hydrogr. Int. sur la base de réponses de 25 pays ou autorités à la Lettre–Circulaire Nº 1–H du 1934.

**An.** - Küstenansichten der westindischen Gewässer [*Conspectus litorum et marium ad Indias occidentales pertinentium*]. 2 Taf. Seewart, IV, 1, 29. Deutsche Seew. Hamburg (1935). **a - 1242**

Eine Reihe von Zeichnungen auf zwei Tafeln ausserhalb des Textes von Puerto Cabello, Punta Brava (Venezuela) und der Insel Margarita, Insel Curaçao, Kap Haïtien, Bergantin–Hafen und Insel Muertos (Pto. Rico). Los Frailes, Aruba und Cabo de la Isla.

**An.** - Beiträge zur Küstenkunde. Iloilo & Bais Bay; Philippinen [*Contributio in litora cognoscenda. Iloilo et* Bais Bay. *Philippinae*]. 3 Taf. Seewart, IV, 2, 98-103. Hamburg (1935). **a - 1243**

Quellen. Landmarken. Ansteuerung. Leuchtfeuer. Lotsen – und Rettungswesen. Zölle. Gezeiten und Strömungen. Klimatische Verhältnisse. Hafenanlagen. Stadt Bais. Auskunft für den Schiffsverkehr.

**An.** - Een hemelglobe van Van Langren uit 1585 [*Sphaera quaedam celestis ad* Van Langren *pertinens A. 1585*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LII, 2, 279. Leiden (1935). **a - 1244**

Short description of a celestial globe discovered in a library in Sweden and quite identical with the one of van Langren in Museo Astronomico in Rome. These two globes are the first ones appeared in the northern Netherlands. (See also Stevenson: Terrestrial and Celestial Globes, I, 208–209).

**An.** - Voorgenomen uitgave Monumenta Europae Cartographica [*Monumenta Europae Cartographica. Ratio editionis*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LII, 2, 294. Leiden (1935). **a - 1245**

Brève notice sur la Commission de la reproduction' l'éditeur, etc.

## Maritimi Portus – Canales – Aestuaria.

**Ardissone Romualdo** - San Antonio Oeste: Estudio de geografia humana [*Portus Sancti Antonii* Oeste. *Studium de antropogeographia*]. Pibl. Mus. Antropol. y Etnogr. Fac. Filosof. y Letr., Ser. A, II, 199-287. Buenos Aires (1932). **a - 1246**

Historique du développement du port de San Antonio Oeste depuis ses origines jusqu'à nos jours; son importance dans sa qualité du plus grand port argentin de la Patagonie; l'aménagement du port.

**Arqué Paul** - Le port de Haïphong [*Portus* Haïphong]. Soc. de Géogr. Comm., Rev. de Géogr. Comm. LVII. Bordeaux (1933). **a - 1247**

**Bertocchi A.** - Riflessi di mare: La Spezia [*Res maritimae. Portus italicus* La Spezia]. Riv. Cult. Mar. X, 7/8, 27–44. Roma (1935). **a - 1248**

Articolo d'intonazione storico–geografico–letteraria.

**Bruddel Roland** - The Lights of Singapore [*Portus* Singapore]. 29 pl. xi+205. Methuen & Co. London (1934). **a - 1249**

**Buchenau F.** - Die freie Hansestadt Bremen: eine Heimatkunde [*Brema, civitas libera hanseatica*]. 504 S., Geist Verl., Bremen (1934). **a - 1250**

**Canihac Gérard** - Le port de Barcelone [*Portus civitatis Barcinonae*]. Rev. Géogr. Pyr. & Sud-Ouest, V, 2, 168-206. Tarbes (1934). **a - 1251**

**Canihac Gérard** - Le port de Bordeaux. Son trafic maritime actuel et son importance économique [*Portus Burdigalensis. Agitur de hodierna frequentia mercium deque momento oeconomico*]. 184 pp., H. Basuyau. Toulouse (1933). **a - 1252**

**Cavenel** - Le port de Brest et son équipement technique [*Portus* Brest *eiusque munera technica*]. Journ. Mar. March. 26 Janv. 145-152 Paris (1933). **a - 1253**

**Constantin A.** - Le bas Escaut et le port d'Anvers [*De basi maritima* Escaut *ac portu Antuerpiensi*]. Bull. Soc. Geogr. Lyon et région lyonnaise, session 1932-33, 49-66. Lyon (1933). **a - 1254**

**Correia Bandeira R.** - El puerto de Maranhao [*Portus* Maranhao]. Rev. Soc. de Géogr. XXXVIII Rio de Janeiro (1934). **a - 1255**

**Desclaire Maurice** - Rouen Leads French Ports [*Rotomagus considerari potest primus portuum gallicorum*]. Naut. Gaz., CXXV, 3, 17 & 33. New York (1935). **a - 1256**

Statistical statements concerned with the cargo tonnage of the Port of Rouen, which show that Rouen again headed all French ports in 1934; competition in the trade to South America.

**Deutsch Richard** - Geographie der Haupt– und Grossverkehrshäfen Grossbritanniens unter besonderer Berücksichtigung der Zeit nach dem Kriege [*De geographia praecipuorum portuum Britannicorum portuumque magni momenti commercialis particulariter post bellum omnium maximum*]. Wiener Geogr. Studien, 2, 108 S., Wien (1933). **a - 1257**

**Ducci G.** - Il porto pisano nell'antichità (Opinione di un marinaio) [*Portus Pisanus antiquis temporibus* (*Nautae cuiusdam opiniones*)]. 7 tav. f. t. Riv. Maritt., LXVIII, 7/8, 3-28. Roma (1935). **a - 1258**

Spunti sul terzo ed ultimo volume dell'opera dell'onorevole Nello Toscanelli, ex deputato di Pisa: « Pisa nella antichità dalle età preistoriche alla caduta dell'Impero Romano ». Cenni sui precedenti volumi. L'A. si sofferma sull'ultimo argomento del volume: Il « Portus Pisanus » e le origini di Livorno.

**Eyquem Jean** - Les ports de la zone française du Maroc [*De portibus ad sectorem Gallicum in Mauretania pertinentibus*]. 8 cartes et plans, vii + 520 pp., V. Heintz. Alger (1933). **a - 1259**

Casablanca et Feldhala occupent la première partie. La seconde partie traite des ports du Nord, puis des ports du Sud et de l'extrême Sud et enfin de la question du débouché maritime du Maroc oriental. Bibliographie.

**Ford P.** - Work and Wealth in a Modern Port: an Economic Survey of Southampton [*De operibus divitiisque ad modernum quemdam portum pertinentibus. Inspectio oeconomica portus* Southampton]. Maps. 224 pp., G. Allen & Unwin, London (1934). **a - 1260**

An economic survey of the town and port of Southampton beginning with a history of the development of the port during the last 150 years.

**Fuhrman Margarete** - Lübeck. Versuch einer Stadtgeographischen Darstellung [*Lubeca. De repraesentatione geographico–urbana*]. 8 Abb., 1 Karte a. T. F. Hirt, 92 S. Breslau (1933). **a - 1261**

Dekadenz Lübecks am Ende des XIX. Jahrhunderts und neues Aufblühen der Stadt und ihres Hafens nach der Entwicklung ihrer Industrie und ihres Holzhandels mit Schweden.

**Gibb Alexander** - The St. Lawrence Deep Waterway [*De canali peralto* St. Lawrence *nomine*]. Ill., charts. R. Engin. Journ., XLVII, June, 216-230. London (1933). **a - 1262**

**Gijzen-Geerling M. G.** - Danzig [*Dantiscum*]. Onze Aarde 229. Amsterdam (1934). **a - 1263**

**Giordano Antonio** - Le développement du port de Naples [*De progressibus portus Neapolitani*]. 1 phot. 1 plan. La Méditerranée, V, 1er Sept., 227-230. Marseille (1933). **a - 1264**

**Giordano Antonio** - Shipping at Trieste on Increase [*Incrementa Tergestina pro navigatione*]. 1 table. Naut. Gaz., CXXV, 5, 19. New York (1935). **a - 1265**

Figures of the shipping of Trieste during the month of January, 1935, which has shown an increase of about 130,000 tons; activity of shipping at Italian ports; Italian trade expansion to the East.

**Giordano Antonio** - Les ports italiens [*Italici Portus*]. Rev. Sc. Politiques, 48° an. LVI Avril-Juin, 213-239. Paris (1933). **a - 1266**

**Harbeson R. W.** - Transportation Developments and the North Atlantic Ports [*De subvectionibus earumque progressibus pro portibus oceani Atlantici Nordici*]. Harvard Business Rev. XII, Oct., 82-93. Boston (1933). **a - 1267**

**Hérubel Marcel-A.** - Bordeaux et les ports de la Gironde au Moyen Age [*Burdigala portusque propinqui Medio Aevo*]. Fig. Rev. Marit., 176, 161-183; 177, 343-363. Paris (1934). **a - 1268**

**Hérubel Marcel-A.** - Les Origines des Ports de la Loire Maritime [*De originibus portuum ad Ligerim maritimum aedificatorum*]. 15 fig., plans, fac-similé, dessins, 152 pp. Soc. Edit. Géogr. Paris (1932). **a - 1269**

Informations historiques, économiques, géographiques concernant surtout Nantes et Saint-Nazaire. La revue s'étend jusqu'à la création de Saint-Nazaire comme port transatlantique.

**Holland Clive** - In and About the Mediterranean: with Chapters upon Corunna, Oporto, Lisbon, Tangier, and Casablanca [*De mari mediterraneo. Capita adjunguntur de* Corunna, Oporto, *Olisippone*, Tangeri *et* Casablanca]. Ills., sketch-map, 256 pp., H. Jenkins. London (1934). **a - 1270**

A guide-book of cruising for a holiday in the Mediterranean and the way thither.

**Kleyntjens J.** - Gdynia, haven van Polen [*Gdynia, Poloniae portus*]. Vrag. v. d. Dag, 257. Leyden (1934). **a - 1271**

**Koomans N. Th.** - The Port of Rotterdam, Its Position in World Trade, Its Rôle in American Commerce [*Portus Roterodamiensis quoad mundi commercium commerciumque americanum*]. 1 map, 4 phot., 2 tabl. Naut. Gaz., CXXV, 4, 5-8, & 13. New York (1935). **a - 1272**

Significance of Rotterdam in world trade emphasized by its situation and the service it is able to render. Its central position on the North Sea and at the mouth of the Rhine; volume of freight transported by Rhine craft; dominant position of Rotterdam as a transit port for the northwestern European continent and its significance as Netherlands national port; its importance as general cargo port; its freight traffic with various European and American ports; the new Petroleum Basin under construction in the Port of Rotterdam.

**Lacoste L. & Quémard C.** - Les ports antiques de l'Algérie [*De veteribus portibus Algarinis*]. 33 pp., Extr. de la Rev. Marit., Soc. Edit. Géogr., Mar. Col. Paris (1933). **a - 1273**

La Division navale de Maurétanie. Le port militaire romain de Césarée (Cherchell). Esquisse archéologique et historique d'après les découvertes et sondages les plus récents.

**Lapomarède (de) R.** - Les deux grands marchés de la Chine du Sud: Hongkong et Canton [*De duobus mercatibus regionis Sinensis meridionalis.* Hongkong et Canton]. Rev. du Pacifique XII, Oct.-Nov. 532-543. Paris (1933). **a - 1274**

Article de caractère statistique, commercial.

**Leip H.** - Hamburg [*Hamburgum*]. 64 Taf. 11 S. Velhagen & Klasing, Bielefeld (1934). **a - 1275**

**Luetgens Rudolf** - Die deutschen Seehäfen [*Germanici maritimi portus*]. 7 Kartenskizz., 1 Doppelkarte 160 S., Dtsch. Samml., Reihe: Geographie, VI, Verlag Dr. Harl Moninger. Karlsruhe i. B. (1934). **a - 1276**

Eine wirtschaftsgeographische und wirtschaftspolitische Darstellung. Erster Teil: Begriff, Bedeutung und Hinterland der Seehäfen im allgemeinen sowie die deutschen Meere und Küsten in ihrer Bedeutung für die deutschen Seehäfen. Zweiter besonderer Teil: Einzelne Seehäfen Deutschlands: Emden, die Weserhäfen, Hamburg, die Entwicklung der Ostseehäfen, Kiel und die Fördenhäfen, Lübeck und die mecklenburgischen Häfen, Stettin und die pommerschen Häfen, Danzig und sein Daseinskampf, die ostpreussischen Häfen.

**McAuliffe John** - Importance of Ocean Carriers to American Ports [*De maritimis subvectionibus earumque momento pro Americanis portibus*]. Naut. Gaz., CXXV, 10, 9-10. New York (1935). **a - 1277**

Advantages of the manifold benefits of shipping secured to the United States ports by the development of ocean shipping.

**Micaletti Raffaello** - Le porte degli oceani. Suez. Singapore. Panama. Gibilterra Con prefazione di Eugenio Coselschi [*Oceanorum januae.* Suez, Singapore, Panama, *sinus Gaditanus*]. Pubblicazione della « Lega di Roma ». 17 cart., n. t. 160, pp. Tip. Editrice E. Schioppo, Torino (1935). **a - 1278**

Accennato all'evoluzione storico-politica degli anglo-americani, l'A. svolge considerazioni storiche, politiche, economiche e geografiche sui canali di Suez e di Panama e sugli stretti di Gibilterra e Singapore, per dimostrare la posizione egemonica che i due popoli hanno nel mondo.

**Mori Alberto** - L'approvigionamento di Zara [*De oeconomia Jadertina*]. Riv. Geogr. It., XL, 212-223. Firenze (1933). **a - 1279**

Sui rapporti di Zara con i paesi limitrofi e sulle sue condizioni economiche.

**Muddle I. E.** - The Suitability of the Port of Dover as An Outlet for Its Developing Hinterland [*Portus* Dover *eiusque momentum pro retroterra*]. 2 maps. Geogr. Journ. LXXXIII, 6, 503-512. London (1934). **a - 1280**

Essay, for which the Council of the R. Geographical Society has awarded a prize. The author points out the importance of Dover as a port whose future might be affected by the development of East Kent coalfield which lies in its hinterland, and discusses other factors, which might also stimulate this development.

**Nicolardot M. P.** - Du rôle du Canal des deux Mers dans le nettoyage et l'entretien des coques de bateaux [*Momentum canalis qui Canalis duorum marium nomen habet pro munditia et conservatione navium alveorum*]. Recherche & Invent., 236, 155. Levallois–Péret (1934). **a - 1281**

Sur la base des travaux du Congrès de Toulouse l'A. illustre brièvement le projet du Canal des Deux-Mers reliant l'Atlantique à la Méditerranée avec référence spéciale à l'économie de distance représentée par l'utilisation de ce canal et à l'action bienfaisante de l'eau douce sur la propreté des coques.

**Ortolani Mario** - Il Porto di Massaua [*Portus* Massaua]. Riv. Geogr. It., XLI, 4/5 100-121. Firenze (1934). **a - 1282**

Si accenna alla struttura del porto e al movimento commerciale di esso.

**Pierre André** - Le canal mer Baltique–mer Blanche [*De canali inter mare Balticum et mare Album*]. 2 croquis et phot. Le Monde Col. Illustré 11e an. X, Nov. 174. Paris (1933). **a - 1283**

Ce canal a été creusé de Nov. 1931 au 20 Juin 1933 par des prisonniers déportés dans la Russie Septentrionale. Il relie Léningrad à Soroka par le lac Ladoga, le Svir et l'Onega et comprend 18 écluses.

**Pritzkoleit Kurt** - Ottawa und der ferne Osten [*De* Ottawa *ac extremis regionibus orientalibus*]. Erde und Wirtsch., VII, 2, 31-34. Braunschweig (1933). **a - 1284**

**Riemens Hk.** - De haven van Antwerpen [*Portus Antuerpiensis*]. Tijdschr. v. econ. geogr. 333-341. s'- Gravenhage (1934). **a - 1285**

**Roever de J. W.** - Het ontstaan van het Suezkanaal [*Canalis* Suez *eiusque origo*]. Illustr. Ned–Ind. Oud en Nieuw, XIX, Amsterdam (1934). **a - 1286**

**Roever de J. W.** - Het Suezkanaal, heden en toekomst [*Canalis* Suez, *hodiernis et futuris temporibus*]. Tijdschr. v. econ. geogr., 97-106. s'–Gravenhage (1935). **a - 1287**

**Saint-Victor Guillaume** - Le Canal de Suez, avec Préface du Marquis de Vogüé [*Canalis* Suez]. Nombr. cartes h. t. 282 pp., Libr. Rec. Sirey, Paris (1934). **a - 1288**

Historique du développement de l'idée de réunir à l'aide d'une voie d'eau artificielle les deux mers, la Méditerranée et la Mer Rouge, depuis les temps des pharaons jusqu'à nos jours. Principales caractéristiques de la construction de Lesseps; le mouvement du trafic et son organisation; les œuvres sociales de la Compagnie du Canal de Suez.

**Schlotterer G.** - The Port of Hamburg in 1934 [*Portus Hamburgensis A. 1934*]. 11 photos, 3 tables. Naut. Gaz., CXXV, 2, 4–8. New York (1935). **a - 1289**

Statistical statements showing the tonnage of the sea-going vessels arriving in the Port of Greater Hamburg during the years 1929-1934, and the incoming and outgoing goods trade by the sea route. Important constructions made in 1934, new regulations for the operation of the piers and the new schedule of charges, and the effects of the new methods applied to Germany's foreign commerce upon the activities of the Port of Hamburg.

**Schwalbach Luiz** - La physionomie géographique de Lisbonne [*De physionomia geographica Olisipponis*]. 2, 36 pp. Varsovie (1934). **a - 1290**

Géographie de la ville. Géomorphologie et climatologie de Lisbonne· Progrès du port.

**Sermet Jean** - Le Port de Santander [*Portus* Santander]. Rev. Géogr. Comm., LVI, IV, 1-16. Bordeaux (1932). **a - 1291**

**Sill Fred De V. & Seymour Paul** - Measurement of Vessels Transiting Panama Canal [*De dimensis navibus quae canali Panamensi transeunt*]. 3 phot, 4 sketch., 2 tabl. Naut. Gaz., CXXV, 3, 5-10. New York (1935). **a - 1292**

Discussion of the question of increased tolls charges on vessels using the Panama Canal. Summary of the history of Panama Canal tolls legislation. Possibility of modification of the measurement rules and its importance with relation to large passenger vessels. Summary of the general principles to be followed in levying tolls at the Panama Canal.

**Tomcsànyi János** - Az Uj Lengyelország Tengeri Kikötöje [*Portus Poloniae Novae*]. 6 fig. Tenger, XXIV, 7/12, 59-65. Budapest (1934). **a - 1293**

Detailed information on the port of Gdynia.

**Toutlemonde Georges** - Le port de Casablanca [*Portus* Casablanca]. 14 fig., Génie Civil, CV, 8, 161-165. Paris (1934). **a - 1294**

**Vilar P.** - Le port de Barcelone [*Portus civitatis Barcinonis*]. 3 fig., Ann. Géogr., XLIII, 245, 489-509. Paris (1934). **a - 1295**

**Wallace F. M.** - Canadian Ports and Shipping Directory [*De portibus et navigatione in regione Canadensi*]. Ill., 308 pp., Nat. Business Publ. Gardenvale (1934). **a - 1296**

**Board of Engineers for Rivers & Harbors** - The Panama Canal and its Ports [*Canalis Panamensis eiusque portus*]. Tables. Govmt. Print. Off., War Dpt., Rep. XXII. Washington D. C. (1935). **a - 1297**

Report intended for use of federal, municipal and port agencies, and others interested in development of harbors. Information useful to shipping and transportation interests in connection with the movement of goods through the various ports. The volume contains also information with regard to port and harbor conditions; port customs and regulations, services and charges, and the facilities available for service to commerce and shipping.

**Chambre de Commerce de Marseille et XIe Région Economique.** (Provence et Bas-Rhône). - Feuille d'Informations économiques Méditerra-

néennes. 5e année [*Notitiae oeconomicae mediterraneae. Annus Vus*]. (Dactylogr.). Direct. Gén. des Services de la Chambre de Comm. de Marseille. Marseille (1933). **a - 1298**

Informations statistiques principalement sur le port de Marseille et ses annexes et sur Gênes.

**Compagnie Universelle du Canal Maritime de Suez** - Renseignements généraux [*Societas universalis pro Canali Maritimo* Suez. *Praecepta Generalia*]. 44 pp., E. Despossés. Paris (1933). **a - 1299**

**Governement of Saskatchevan** - The Hudson Bay Route and the Port of Churchill [*De cursu maritimo ad bajam Hudsoniam deque portu* Churchill]. Ill. charts, 64 pp. Govmt. of Saskatchevan. (1933). **a - 1300**

**U. S. War Department** - Port and Terminal Charges at United States Ports (1934 Edition) [*Portoria et taxationes in Americae Statibus Foederatis*]. Tables. Miscell. Ser., n. 1, ii–xi, 1-653, U. S. Govmt. Pr. Off. Washington D. C. (1934). **a - 1301**

This report is the annual revision of the volume Port and Terminal Charges at United States Ports, and supersedes the 1931 edition of the volume and the 1933 supplement thereto. Part 1 contains the charges of the United States Government, and the more important governmental regulations affecting the movement of vessels, freight, and passengers. Part 2 contains the detailed charges by ports.

**U. S. War Department** - The Port of New York (in Three Parts) [*Portus* New York]. Port Series, 20, Bureau of Operations U. S. Shipping Board. Washington (1932). **a - 1302**

**U. S. War Department** - The Ports of San Francisco, Oakland, Berkeley, Richmond, Upper San Francisco Bay, Santa Cruz, and Monterey, California [*Portus quorum nomina in titulo anglico huius schedulae inscribuntur*]. Num. aerophotos, tables. Port. Ser., 12, iii–xii, 1-334. U. S. Govmt. Print. Off. Washington D. C. (1933). **a - 1303**

Revision of the report on the ports in the title concerning the physical features of each port, its organization and practices, regulations governing the movement of ships and goods, port dues and charges, water-and-rail connections, and character and commerce of hinterland. It is illustrated with original charts, diagrams, and photographs, and contains tabular matter showing important commodity movements.

**U. S. War Department** - The Ports of Port Arthur, Sabine, Beaumont and Orange, Texas [*Portus quorum nomina in titulo anglico huius schedulae inscribuntur*]. 14 ills., tables. Port Ser. 14, iii–ix, 1-170. U. S. Govmt. Print. Off. Washington D. C. (1933). **a - 1304**

This report treats a variety of subjects of particular interest to the shipping world, such as physical conditions of each port, its customs and regulations, services and charges, fuel and supplies, water and rail connections, freight ráte situation, and character and commerce of hinterland. It is illustrated with original charts, diagrams and photographs, and contains tabular matter showing important commodity movements.

**U. S. War Department** - The Ports of Baltimore, MD., Washington, D. C. and Alexandria, Va., Part. I: (Revised 1933) The Port of Baltimore, Md. [*Portus quorum nomina in titulo anglico huius schedulae inscribuntur. Agitur particulatim* de Baltimore]. 12 ills., tables. Port Ser. 16, iii–x, 1-348. U. S. Govmt. Print. Off. Washington D. C. (1934). **a - 1305**

Information on port and harbour physical conditions, its custom and regulations, services and charges, fuel and supplies, port and harbour facilities, rail and water communications, the freight rate situation, the commerce of Baltimore and its hinterland.

**U. S. War Department** - The Panama Canal and Its Ports (Revised 1934) [*Canalis Panamensis eiusque portus. Editio recognita A. 1934*]. 23 ills. & maps, tables. Port Ser. 22, iii–xii, 1-84. U. S. Govmt. Print. Off. Washington D. C. (1934). **a - 1306**

Revised report on the Panama Canal and its ports, which covers port and harbor conditions, port customs and regulations, port services and charges, port and harbor facilities, as well as their railroad-sea and other communications and commerce.

**G. P.** - Il Canale di Suez [*Canalis* Suez]. 1 cartina. Riv. Cult. Mar., X, 5/6, 670-681. Roma (1935). **a - 1307**

Cenno storico sul Canale, sui lavori, sulla sua importanza.

**R. de M.** - Les ports de Madagascar [*De portibus Madagascariensibus*]. 3 cartes, 1 prof. Rev. de Madagascar, Janv., 95-118, Impr. Officielle. Tananarive (1933). **a - 1308**

Œuvres accomplies à Tananarive, Majunga, Diego-Suarez, Tulêar.

**An.** - Fifth Anniversary of the Harbour Igarka [*Portus* Igarka, *quinto recurrente anno*]. [In Russ. and Engl.). Bull. Arct. Inst., 8/9, 301-344. Leningrad (1934). **a - 1309**

Importance of this harbour situated in the lower part of the Yenissey River, at a distance of 720 km. from the Kara Sea in connection with the activity and the establishment of the Northern Sea Route, and with the exploitation of the natural resources of Eastern Siberia.

**An.** - A Harbour in Yugorsky Strait [*Portus in strictu* Yugorskij]. (In Russ. & Engl.). Bull. Arct. Inst., 8/9, 317, 347. Leningrad (1934). **a - 1310**

Brief summary of the project of a harbour elaborated by the State Institute for Water Transport Projectings to be built in Yugorsky Strait.

**An.** - The Harbors of Bremen [*Civitas* Bremen *eiusque portus*]. 3 photos., Naut. Gaz., CXXV, 2, 9-11, 32-33. New York (1935). **a - 1311**

Predomination of the flag of United States and of Great Britain in the harbors of Bremen; the increasing freight trade of this port; its passenger traffic; the equipment of the town of Bremen as a model passenger port; the ten basins of Bremerhaven: the free harbors; the improvements of the Lower Weser which has been developed into a farway for ocean-going vessels; the equipment of harbors for transshipment trade.

**An.** - Dutch Port Traffic [*De mercium frequentia per Hollandeses portus*]. 1 table, Naut. Gaz., CXXV, 8, 28. New York (1935). **a - 1312**

Tonnage on decrease. Ship sales to Russia.

**An.** - Traffic at Saint John Increases During 1934 [*Crescit frequentia mercium in portu* Saint

John, *A. 1934*]. 2 photos, 1 table. Naut. Gaz., CXXV, 9, 6-7 & 33. New York (1935). **a - 1313**

Statistical statements showing the development during 1934 of Saint John's exports and imports, its steamhip services, and the cargo tonnage, combining import and export, handled through the port.

**An.** - New York Passenger Traffic and Sailings [*De viatorum frequentia deque navium discessu a* New York]. Tables. Naut. Gaz., CXXV, 10, 12. New York (1935). **a - 1314**

Statistical statements.

**An.** - Services and Sailings from Port of New York [*De navium discessibus a portu* New York *muneribusque ad eas pertinentibus*]. 2 tables. Naut. Gaz., CXXV, 11. New York (1935). **a - 1315**

Statistic statements.

**An.** - Kola-Bucht, Murmansk [*Sinus* Kola *nomine in* Murmansk]. Seewart, IV, 1, 26-27. Deutsche Seew. Hamburg (1935). **a - 1316**

An Hand eines Berichtes, welcher im Handbuch Nordküste Russlands, I. Teil, 1930 veröffentlicht worden ist, werden die Bedingungen der An- und Einsteuerung der Schiffe in die Kola-Bucht angegeben.

# CHEMIA ET PHYSICA MARIS

## Chemia et Physica – Salsedo et temperatura – Transparentia – Densitas – Evaporatio – Aquae chemici componentes.

**Bergmann L.** - The Optical Investigation of the Oscillations of a Quartz Crystal by the Method of Debye and Sears and Its Application to Sound Velocity Measurements in Liquids [*Studium opticum de oscillationibus crystalli cuiusdam ex quarzo per methodum a* Debye *et* Sears *inventam. Studium applicatur ad soni velocitatis in liquidis mensuras*]. Phys. Ztschr., XXXIV, 761-764. Leipzig (1933). **a - 1317**

**Bigelow Henry B.** - Physical Oceanography of the Waters on the Continental Shelf, Cape Cod to Chesapeake Bay [*De oceanographia physica maris ad plateam continentalem pertinentis inter promunturium* Cod *et Bajam* Chesapeake]. Woods Hole Oceanogr. Instit. Rep., 1933, App., 19. Woods Hole. Mass. (1934). **a - 1318**

Note on the account of the Cycle of Temperature in the area under consideration, which has been published in extenso, as Contribution n. 34 of the Institution.

**Brooks Charles F. & Harwood E. Monroe** - A Preliminary Comparison of Monthly Weather with Ocean-Temperature Sequences in the Western Atlantic Region [*Comparatio prior inter meteorologicas menstruas condiciones et temperaturas oceanicas in regione Atlantica occidentali*]. 1 fig., 2 tabl., Nat. Res. Counc., Trans. Amer. Geoph. Union., 15th Ann. Meet., Part. I, 211-214. Washington D. C. (1934). **a - 1319**

A preliminary account of the results of the installations of numerous sea-water thermographs on commercial steamships in the western Atlantic since 1926 made in order to provide accurate sea-temperature data for comparison with weather ashore and to find out to what extent the slowly changing sea-temperatures can be used to anticipate seasonal weather abnormalities. From the sampling mentioned in this paper, it seems possible that the coastal waters may give indication of the air-temperatures of the following month along the middle and north Atlantic seaboard.

**Buchanan J. Y.** - Sur un nouveau type de piézomètre [*De novo piezometro*]. 1 fig., Résult. Camp. Scient. accomplies par Albert I, Prince Souverain de Monaco, fasc. LXXXIX, 357-359. Monaco (1934). **a - 1320**

Description de l'instrument présenté dans sa forme la plus simple par une figure schématique. Dans cette forme il se prête le mieux à la détermination dans la mer de la compression de l'eau de mer sous l'influence du poids d'une colonne donnée d'eau de mer, ou bien de la contraction intégrale due au refroidissement et à l'augmentation de la pression à la fois.

**Carter N. M., Moberg E. G., Skogsberg T. & Thompson T. G.** - The Reporting of Data in Oceanographical Chemistry [*Inscriptio et communicatio datorum ad Chemiam oceanographicam pertinentium*]. 3 tables. (Repr.) Proc. 5th Pacif. Sc. Congr., III, A 5, 26, 2123-2127. Vancouver B. C. (1933). **a - 1321**

Recommendations elaborated by a Committee of representatives from four oceanographical or marine laboratories situated on the Pacific coast of North America for the reporting of data in oceanographical chemistry in order to insure a more uniform mode of procedure in the areas concerned. The Committee recommends that the constituents of sea water be expressed as milligramme-atoms per kilogramme of sea water and that the general chemical nature of sea water as a function of its physical properties be expressed as chlorinity.

**Chabaud M. V.** - Sur un nouveau modèle de thermomètre à renversement pour mesurer les températures de la mer à diverses profondeurs [*De novo thermometro reversibili ad maris temperaturas mensurandas in profunditatibus variis*]. 1 fig., Résult. Camp. Scient. accomplies par Albert I, Prince Souverain de Monaco, fasc. LXXXIX, 353-355. Monaco (1934). **a - 1322**

Description de cet appareil dont quatre ont été embarqués sur la « Princesse Alice » où ils ont parfaitement fonctionné entre les mains du prof. Thoulet, dans une série d'expériences faites à Boulogne, sans avoir cependant subi l'épreuve définitive en eau profonde.

**Chauchard P.** - Repérage des variations de salinité par la méthode des conductivités électriques [*De repertis salsedinis variationibus per conductivitatis electricae methodum*]. Bull. Labor. St.-Servan, X, 1-12. St.-Servan (1932) **a - 1323**

Comparaison des conductivités et des salinités. Application à l'étude d'un estuaire.

**Chauchard Paul** - Le pouvoir reducteur de l'eau de mer sur le littoral et au large (septembre 1931) [*De aqua marina eiusque tenore quoad*

*reductionem praeter et longe a litoribus regionis* St. Servan]. 1 carte geogr. Bull. Labor. St.–Servan, IX, 6-12. St.–Servan (1932). **a - 1324**

Teneur de l'eau de mer en matières réductrices, mesurée au cours d'une croisière du « Pourquoi pas ? » dans l'Atlantique.

**Cherneff S.** - Investigations on Salinity and Temperature in Bourgas Bay and the near Open Sea Waters [*Investigationes in salsedinem et temperaturam in Baja* Bourgas *et in propinquis aquis liberis*]. (In Bulg., Engl. rés.). Trav. Stat. Ichthyol. à Sozopol–Bulgarie, II, 39-57. Burgas (1934). **a - 1325**

**Church Phil. E.** - Surface–Temperatures on the New York to Cape São Roque Steamship-Route [*Agitur de variis temperaturis ad superficialia aquae strata, secundum cursum pyroschaphorum inter* New York *et Promunturium* São Roque]. 1 map. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 204-208. Washington D. C. (1934). **a - 1326**

Account of the results of observations made by means of thermographs installed by the Brazilian Traction and Light Company on three of their vessels which ply between New York and Cape Sao Roque and thence to South American ports. In the present paper only data concerning the Central Atlantic and North Equatorial Current areas are discussed under the following headings: Central Atlantic water. Winter temperatures. Summer temperatures. Annual range. North Equatorial Current. Northern belt. Central belt. Equatorial belt. Annual march of temperature.

**Church Phil. E.** - Studies of the Distribution of Surface Temperature in the Western North Atlantic, Based on Thermograph Records [*Studia, quorum fundamenta ponuntur in termographicis inscriptionibus, quoad temperaturae superficialis per Atlanticum Nordicum Occidentalem distributionem*]. Woods Hole Oceanogr. Instit., Rep. 1933, App., 20. Woods Hole. Mass (1934). **a - 1327**

Elaboration of twenty synoptic charts in addition to the seventy previously made, including the period from January 1929 to April 1933. Tabulation of the mean temperatures by weeks for each degree of latitude for six steamers routes for the period covered by the charts. Comparison between the charts and the wind data in order to see if there is any correlation between surface water movements and wind directions and force.

**Clowes A. J.** - Hydrology of the Bransfield Strait [*De hydrologia in strictu* Bransfield]. Discovery Rep., IX, 1-64. Disc. Comm., Col. Off. London (1934). **a - 1328**

**Copenhagen W. J., Campbell W., Yudd M. & Steer E. J.** - Occurrence of Sulphides in Certain Areas of the Sea Bottom on the South African Coast [*De sulphatis in fundi marini areis prope litora sud–africana*]. Tables, 2 pls. 11th Rep. Fish. & Biol. Mar. Inv. Div., 1933, Inv. Rep., 3, 3-18. Pretoria (1934). **a - 1329**

Part I: General and chemical: A. – Occurrence of sulphide in the mud of the Capetown docks. B. – Occurrence of sulphide, Walvis Bay area. Part II: Bacteriological aspect. Part III: Diatoms found in green mud from Walvis Bay, South West Africa.

**De Buen Rafael** - Régime hydrographique dans la mer d'Espagne et le long des côtes portugaises (Croisières du navire « Xauen ») [*Regimen hydrographicum maris hispanici longeque a litoribus Lusitanis.* (*Navigatio navis* « Xauen »)]. 3 fig., Rapp. Pr.–Verb., Cons. Expl. Mer, Rapp. Atlantique, XCIII, 22-24. Copenhague (1935). **a - 1330**

Recherches effectuées par l'Institut Espagnol d'Océanographie en Juillet 1933. Les valeurs des températures et des densités *in situ* et des salinités et des températures, exposées graphiquement, montrent que les eaux se trouvent en parfait équilibre à l'exception d'une anomalie à la côte nord du Portugal qui se trouve en rapport avec une inversion thermique et une diminution de la salinité.

**Demel Kazimier** - Z Pomiarów Termicznych Baltyku. Cześc V [*De temperatura litorum maris Baltici ad Poloniam pertinentium, A. 1932/33. Pars. V*ª]. (En polon., rés. franç.). 3 ill., 24 tabl. Archiw Hydrob. Rybactwa, VIII, 27-47. Sywalki (1934).

(—) Voir: Kosmos. Serja A. Rozpr. LVII, i–iv, 160-176. Lwów. **a - 1331**

Résultats des observations thermiques sur les eaux côtières polonaises de la Baltique, faites en 1932–33 à un point déterminé (54°36' N, 18°47'5" E) dans les environs de la Station Maritime de Hel et constituant la suite d'une série d'observations analogues commencées depuis 1926, dont les résultats ont déjà été publiés en précédence.

**Ercegovic Ante** — Istraživanja o temperaturi, salinitetu, kisiku i fosfatima jadranskih voda sredijodalmatinske obale [*De temperatura, salsedine, oxygeno et phosphatis in litoribus hadriaticis ad Dalmatiam pertinentibus*]. Prirodoslovna Istraž. Kr. Jugosl., XIX, 1–115. Zagreb (1934).

(—) Température, Salinité, Oxygène et Phosphates de l'Adriatique oriental moyen. Acta Adriatica 5. Split (1934). **a - 1332**

**Gilfillan E. S.** - The Isotopic Composition of Sea Water [*De aqua marina eiusque compositione isotopica*]. Journ. Amer. Chem. Soc., LVI, 406, Easton, Pa (1934). **a - 1333**

**Granqvist Gunnar** - Regular Observations of Temperature and Salinity in the Seas Around Finland, July 1933-June 1934 [*Salsedinis et temperaturae observationes regulares in maribus quae Finlandiam circumdant, a mense Julio 1933 ad mensem Junium 1934*]. 2 figs., tables. Merentutkimus laitoksen Julk. Havsforskn. inst. Skr., 100, 4-45, i–iv. Helsinki (1935). **a - 1334**

I. General survey: 1. Localities of observation; 2. Observations and instruments; 3. Computation of observations and arrangement of tables. II. Observations in the depth at year-stations, 1933 VII-1934 VI. III. Observations in the depth at summer-stations, 1933 VII - 1934 VI. IV. Surface observations at year-stations, 1933 VII - 1934 VI: 1. Annual means 1933 and 1933 VII - 1934 VI; 2. Observations and monthly means. V. Surface observations at summer-stations, 1933 VII - 1934 VI.

**Gripenberg Stina** - A Study of the Sediments of the North Baltic and Adjoining Seas [*De sedimentis Maris Baltici septentrionalis mariumque adiacentium*]. 45 figs., 28 tables. Merentutkimus laitoksen Julk. Havsforskn. inst. Skr., 96, 8-231. Helsinki (1934). **a - 1335**

I. Introduction. II. Chemical analysis. III. Mechanical analysis. IV. Preliminary treatment. V. The samples. VI. Discussion: organic matter and character, distribution of and depth in sediment; ratio of carbon to nitrogen;

calcium carbonate and Baltic sea water; the Silurian area of the Bothnian Sea; carbonate content of samples from the North Baltic and the Gulf of Finland; Mechanical composition. Bibliography.

**Hachey H. B.** - Surface Water Temperatures for Atlantic Coast of Canada [*De temperatura ad superficiem litorum Canadensium Oceani Atlantici*]. 1 table. Ann. Rep. Biol. Board Canada, 1933, 19. Ottawa (1934). **a - 1336**

Results of a study of the surface water temperature at various points on the Canadian-Atlantic coast in recent years showing an interesting trend in the hydrographic conditions, which is now towards colder conditions, the warm peak having been reached in 1930 or 1931. The occurred changes are illustrated by the monthly means and indicate a large scale movement of Labrador waters through the strait of Belle Isle during the month of August, perhaps due to pressure distribution in the atmosphere.

**Hachey H. B.** - Hydrography of the Waters of the Scotian Shelf [*De aquarum hydrographia ad plateam Novae Scotiae pertinentium*]. Ann. Rep. Biol. Board Canada, 1933, 19-20. Ottawa (1934). **a - 1337**

Results of investigation of the hydrographic conditions as compared with those of the previous season. The most important variations having been found to occur in the inshore area are described in the paper.

**Hachey H. B.** - Effect of Wind Action on Inshore Stratified Waters [*Ventorum effectus in stratificationem aquarum litorearum*]. Ann. Rep. Biol. Board Canada, 1933, 20. Ottawa (1934). **a - 1338**

Description of the marked changes in temperature density and salinity of the markedly stratified waters on the south coast of Nova Scotia in September 1932, effected through the agency of the wind.

**Harwood E. Monroe** - Investigation of Sea Surface Temperatures in the Western North Atlantic [*De temperatura ad aquae superficiem in regione nordoccidentali Oceani Atlantici*]. Woods Hole Oceanogr. Instit., Rep., 1933, 22-23. Woods Hole. Mass. (1934). **a - 1339**

Supplementary information of the work illustrated by Phil. E. Church on page 20 of the same publication.

**Heldt M. H.** - Suppression des calculs pour la détermination du pH par les méthodes électrométriques. Tables de Vellinger (rés.) [*De suppressis calculis ad* pH *determinandum per methodus electrometricas. Tabulae Vellingerii.* (*Compendium*)]. Comm. Sect. VIIe Congr. Int. Aquicult. & Pêche, Paris, 1931, Gr. I, Sect. 1/2, 3. Impr. du Loiret. Orléans (1931). **a - 1340**

L'A. résume les avantages des tables de pH de Vellinger publiées par la Station Océanographique de Salammbô permettant de passer directement du potentiel de l'électrode à hydrogène au pH correspondant. Les pH ont été calculés avec 3 décimales pour les potentiels de 275 à 999 millivolts et des températures de 0° à 40°.

**Hofer E.** - Bestimmung von kleinen Densitäts-Variationen im Wasser [*De minusculis variationibus in aquae densitate determinatis*]. Ztschr. phys. Chem., XXVII, Abt. B., 5/6, 467-472. Leipzig (1934). **a - 1341**

Mit Hilfe eines Apparates, welcher auf demselben Prinzip wie der Apparat von Gilfillan und Polanyi gegründet ist, hat Vf. Densitätsvariationen im Wasser mit einer Genauigkeit bis $5 \times 10{-}7$ gm./ml. gemessen. In der vorliegenden Arbeit berichtet er über die Konstruktion seines Apparates, dessen Standardisierung und die mit ihm erzeugten Densitätsmessungen.

**Howard C. S.** - Report of the Committee of the Chemistry of Natural-Waters, 1933-34 [*Relatio Comitatus pro aquarum naturalium chemica. A. 1933-34*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part II, 322-325. Washington D. C. (1934). **a - 1342**

Personnel of the Committee. List of papers on methods of analysis, especially for the analysis of sea-water, prepared during the year 1932-1933 by workers in the Oceanographic Laboratories. Account of other work on the chemistry of natural waters.

**Irving Laurence** - The Acid-Base Equilibrium in Sea Water [*De acido-basi in aqua maris eiusque aequilibrio*]. Science, LXXX, 2086, 587-588. New York (1934). **a - 1343**

On the attempts to formulate the carbon dioxide system in sea water in terms of the dissociation products of carbonic acid. On the difficulty to be certain from the titration curve whether or not other weak acid acids are present. Some hints of the works of Saunders and Buch on the value of $k_1$ for carbonic acid in sea water from determination of the total $CO_2$ by titration.

**Iselin C.** - Temperature-Salinity Correlation within the Florida Current [*Correlatio inter salsedinem et temperaturam quoad currentiam* Florida]. 1 table. Nat. Res., Counc.Trans Amer. Geoph. Union, 15th Ann. Meet., Part I, 208-209.Washington D. C. (1934). **a - 1344**

Summary of the results of observations on the correlation between temperature and salinity in the Florida current on hand of data collected by the « Bache » expedition (1914), and those of the « Dana » (1928) and the « Atlantis » (May 1933) which throw some light of the average ratio of T to S at mid-depth in the heart of the Current at three points between the Bahama Banks and Cape Hatteras. The author adds some considerations concerning the origin of the waters of the Gulf Stream.

**Iselin C.** - Studies Based on « Atlantis » Temperature and Salinity Observations [*Studia quorum fundamenta ponuntur in temperaturae et salsedinis observationibus in navi peractis nomine* « Atlantis »]. Woods Hole Oceanogr. Instit., Rep. 1933, App., 22-23. Woods Hole, Mass. (1934). **a - 1345**

*a*) Distribution of temperature and salinity in the Western North Atlantic, *b*) the Caribbean observations, *c*) the seasonal changes in the circulation of the Gulf of Maine. Analysis of over 5000 water samples for chlorine by Mr. Woodcock.

**Jacobsen J. P.** - Temperaturmessung mit elektrischem Widerstandsthermometer auf der Kattegatsexpedition im August 1931 [*De temperatura dimensa, thermometri resistentia praediti auxilio, inter navigationem ad* Kattegat, *mense Augusto 1931*]. Medd. Komm. Danmarks Fisk. og Havunders. Ser. Hydrogr. III, 1. København (1935). **a - 1346**

**Jaenicke Johannes** - Habers Forschungen über das Goldvorkommen im Meerwasser [*De investigationibus per* Haber *susceptis ad aurum in aqua marina inveniendum*]. Naturwiss. XXIII, 4, 57-63. Berlin (1935). **a - 1347**

Im Auftrage von dem verstorbenen Forscher berichtet der Vf. hier über dessen Versuche Gold vom Meerwasser zu gewinnen. Ursachen des Misslingens. Bedeutung der Haberschen Analysenmethode für spätere Forschungen.

**Kalle Kurt** - Zur Frage der Festsetzung der Masseinheiten in der meereskündlichen Chemie [*De unificandis mensuris Chimicae oceanographicae*].

2 Tab., Ann. d. Hydrogr., LXIII, 1, 18-23. Berlin (1935). **a - 1348**

Auf Grund einiger Ueberlegungen über die Notwendigkeit der Standardisierung der zu den hydrographisch-chemischen Untersuchungen benutzten Masseinheiten, entwickelt Vf. eine Reihe von Masseinheiten, deren allgemeinen Gebrauch er in der meereskundlichen Chemie vorschlägt und welche er in einer Tabelle nebst der zur Zeit gebräuchlichen Masseinheiten zusammenfasst.

**Kalle K.** - Meereskundliche chemische Untersuchungen mit Hilfe des Zeissschen Pulfrich-Photometers. IV. Mitteilung. Der Einfluss chemischer Stoffe auf die Phosphatgehaltsbestimmung. [*Investigationes oceanographicae peractae, photometri Pulfricii auxilio, a Zeiss constructi. Communicatio IVa. Substantiarum chemicarum influentia in phosphatum determinandum*]. 8 Tab., Ann. d. Hydrogr., LXIII, 2, 58-65. Berlin (1935). **a - 1349**

In der III. Mitteilung der vorliegenden Untersuchungsreihe (Ann. Hydr., LXII, S. 65) wurde eine methodische Untersuchung der Phosphatgehaltbestimmung durchgeführt. In der vorliegenden Mitteilung wird über die hieraus sich ergebenden Nutzanwendungen für die Ausführung der Phosphatreaktion berichtet. Untersuchung der verschiedenen Stoffe, die einen begünstigenden oder hemmenden Einfluss auf die Phosphatreaktion haben können. Ein « Salzfehler » im eigentlichen Sinne des Wortes bei der Phosphatgehaltbestimmung im Meerwasser scheint dadurch nicht vorzukommen.

**Kalle K.** - Meereskundliche chemische Untersuchung mit Hilfe des Zeissschen Pulfrich-Photometers. V. Mitteilung. Die Bestimmung des Gesamt-Phosphorgehaltes, des Plankton-Phosphorgehaltes (lebende Substanz) und Trübungsmessungen [*Investigationes oceanographicae peractae, photometri Pulfricii auxilio, a Zeiss constructi. Communicatio Va. Totius phosphori in substantia planctonica determinatio, mensuraeque turbiditatis*]. 5 Tab., Ann. d. Hydrogr., LXIII, 5, 195-204. Berlin (1935). **a - 1350**

Beschreibung einer Methode zur Bestimmung des Gesamt-Phosphorgehaltes, spez. für Meerwasserproben, welche frei von den Fehlerquellen und Nachteilen der allgemein angewandten Bestimmungsmethoden ist und ausserdem eine neuartige Bestimmung des Gesamt-Arsengehaltes ausser dem Phosphor enthält. Auf Grundlage dieser Bestimmungen wird gleichzeitig durch die Bestimmung des im Plankton vorhandenen « geformten » Phosphors, eine Bestimmung der Menge der lebenden Substanz entwickelt. Die Bestimmungen erfassen gleichzeitig die in anderer Form als Phosphat im Wasser gelösten Phosphorverbindungen. Ausserdem teilt Vf. hier eine Methode mit um den Grad der Trübung in einer Meerwasserprobe festzustellen.

**Karaoglanov Z.** - Chemie des Schwarzen Meeres [*De chemia Ponti Euxini*]. 3 Tab., Arb. Biol. Meeresstation a. Schwarzen Meer in Varna, Bulg., 3, 55-75. Sofia (1934). **a - 1351**

Rektorrede gehalten an der Universität am 8-XII-1932. Angaben vorhergehender Forscher über die chemische Zusammensetzung mit besonderer Berücksichtigung des Schwefelwasserstoffs. Widerlegung der Behauptungen von A. A. Lebedinzeff u. a. russischen Forschern, Uebereinstimmung mit wenigen Ausnahmen mit den typischen Ozeanwässern.

**Keeton H.** - The Sea Surface Temperature Distribution in the Indian Ocean [*De temperatura ad superficiem eiusque distributione per Oceanum Indianum*]. Mar. Obs., XII, 120, 152. London (1935). **a - 1352**

Re-examination of the charts of mean sea surface temperature in the light of the information obtained from the last investigation of the currents.

**Keys Ancel B.** - Studies on Dissolved Organic Substance and Ammonia in the Sea [*De substantia organica deque ammoniaca in mari solutis*]. Woods Hole Oceanogr. Instit., Rep. 1933, 23-24. Woods Hole. Mass. (1934). **a - 1353**

Advantages of the vacuum distillation technique and the new titration procedure with the distillate employed. Some results of ammonia estimations on collected water samples. Some indications on new apparatus constructed in view of the continuation of the above investigations.

**Kitagawa Kiugoro** - Note sur une intégrale de l'équation de la propagation du son dans la mer [*De integrale aequationis quoad soni propagationem per maria*]. Mém. Coll. Science, Sér. A, XVII, 43-49. Kyoto (1934). **a - 1354**

Dans une note précédente l'A. avait établi l'équation de la propagation du son dans la mer et a cherché d'en déterminer l'intégrale sous une forme élémentaire, dont il a déduit certains résultats. Le présent ouvrage a pour objet de trouver sous la forme d'onde radiale et progressive une intégrale de cette équation (Auteur).

**Krogh A.** - with. Coll. of **Krogh Marie** & **Keys Ancel B.** - Studies on Organic Matter 1) Dissolved in Sea Water and 2) Present in Bottom Samples [*De substantiis organicis in aqua marina solutis et in fundi speciminibus praesentibus*]. Woods Hole Oceanogr. Instit., Rep. 1933, 24-25. Woods Hole. Mass. (1934). **a - 1355**

Some results of the application of the methods for the determination of ammonia, organic carbon and nitrogen in sea-water worked out in Copenhagen and applied to a series of samples taken on board the « Atlantis » at stations 1467-68 and sent to Copenhagen. Information on the analysis of a small number of samples taken from the surface-layer of the bottom at depths from 100-5000 meters.

**Liachnitskij V. E.** - Methodik der hydrologischen Untersuchungen bei Hafenforschungen nach den Errungenschaften der letzten 15 Jahre [*Investigationes hydrologicae in portibus studendis. Methodus cuius fundamenta ponuntur in progressibus abhinc 15 annos obtentis*]. (In Russ., Dtsch. Rés.). Mém. Inst. Hydrol., X, 337-343. Léningrad (1933). **a - 1356**

**Marchand J. M.** - Salinity Results Obtained During 1933 [*Resultatus obtenti A. 1933 circa salsedinem*]. 1 Table, 11 th Rep. Fish. & Mar. Biol. Surv., 1933, Ann. C, 81-88. Pretoria, S. Africa (1934). **a - 1357**

Salinity results obtained from analysis of water samples collected during the various survey cruises undertaken by the survey vessel R. S. « Africana » on different sections of the coast of the Union of South Africa during 1933. The salinities were determined with the titration method developed by the Conseil Permanent International pour l'Exploration de la Mer.

**Mitchell Philip H.** & **Rakestraw Norris W.** - The Buffer Capacity of Sea Water [*De aquae marinae capacitate occludendi. (Anglice*: buffer capacity)]. 3 figs., Biol. Bull., LXV, 3, 437-451. Lancaster, Pa. (1933). **a - 1358**

Various sources of error in the method developed by Thompson and Bounar are discussed. The effects of mass movements of ocean water upon the buffer capacity appear to be traceable. References.

**Mitchell Ph.** & **Solinger J. L.** - The Effects of Land Drainage Upon the Excess Bases of Sea Water [*Effectus terreni absorbentis bases quae ab*

*aqua marina excedunt*]. 2 figs., 1 table. Biol. Bull., LXVI, 2, 97-101. Lancaster, Pa. (1934). **a - 1359**

Results of investigations on the effects of land drainage upon the buffer capacity-chlorinity ratio of sea-water.

**Mitchell Philip & Taylor Ivon R.** - The Dissociation Constant of Cresol Red in Sea Water [*Agitur de numero constante quoad rubri creosolici dissociationem in aqua marina*]. 1 fig., Journ. Cons. Expl. Mer., X, 2, 169-172. Copenhague (1935). **a - 1360**

Values for the $pK_1$ of o-cresol red in sea-water at various dilutions were obtained at 30° C. and at 20° C. by the use of the glass electrode and the bicolorimeter. The results are shown graphically. (Author).

**Moberg E. G. & Fleming R. H.** - The Distribution of Nitrogen Compounds in the Sea Near Southern California [*De nitricorum componentium distributione in mari apud Californiam meridionalem*]. 1 table (Repr.) Proc. 5th Pacif. Sc. Congr., III, A5, 18, 2085-2088. Vancouver B. C. (1933). **a - 1361**

In order to give a clear picture of the vertical distribution of the various nitrogen compounds in the vicinity of la Jolla a summary of the concentrations of these compounds in three strata of water of distinct physical characteristics is given in a table, which suggests a number of questions of biological significance, briefly considered here.

**Münster Strøm Kaare** - Phosphatspeicherung in abgeschlossenen Meeresteilen [*De phosphatis in maris partibus clausis*]. 1 Tab., Int. Rev. ges. Hydrobiol. u. Hydrogr., XXX, 3/4, 379-380. Leipzig (1934). **a - 1362**

Vorläufiger Bericht über die in etwa 30 norwegischen Fjorden ausgeführten Untersuchungen. In einer Tabelle werden die Tiefen und Namen der Fjorde sowie die Phosphate (nach Atkins) als mg/ $M^3$ $P_2O_5$ angegeben. Vergleich mit Analysenwerten von einer Station im offenen Meere.

**Okada T.** - Results of the Oceanographical Observations on Board R. M. S. « Syunpu Maru », in the Tugaru Kaikyô (Tugaru Straits). (Aug. Sept., 1932) [*De observationibus oceanographicis navi* « Syunpu Maru » *peractis in freio* Tugaru]. Journ. Oceanogr., VI, 2, 177-208. Kobe (1934). **a - 1363**

**Okada T.** - Results of the Oceanographical Observations on Board R. M. S. « Syunpu Maru » in Hunkwa-Wan (Volcanic Bay), Hokkaidô. (Aug. 1932) [*De observationibus oceanographicis navi* « Syunpu Maru » *peractis in* Hunkwa-Wan. Hokkaidô]. Journ. Oceanogr., VI, 2, 209-240. Kobe (1934). **a - 1364**

**Okada T.** - The Temperatures and Densities of the Sea-Water Along the Japanese Coasts. (Aug.-Sept. 1933). [*Temperatura et densitas aquae marinae praeter Japonica litora*]. Journ. Oceanogr., VI, 2, 247-270. Kobe (1934). **a - 1365**

**Okada T.** - Report of the Oceanographical Observations Taken on Board R. M. S. « Syunpu Maru » in the Mutu-wan in September, 1932 [*Relatio de observationibus oceanographicis navi* « Syunpu Maru » *peractis, mense Septembri 1932*]. (In Jap., Engl. Abstr.). 3 Tables, 73 pls., 1 photo. Journ. Oceanogr., VII, 1, 3-4 & 331-366. Kobe (1934). **a - 1366**

Results of the oceanographical observations taken in the Mutu-wan, a bay on the north coast of Northern Japan, which are summarized under the following headings: Depth to the bottom, Temperature, Salinity and Density, Currents, Chemical Elements, Oxygen, Hydrogen Ion Concentration, Silicates, Phosphates, Color of the Sea and Transparency, Bottom samples, Plankton, Meteorological Observations.

**Paspaleff G. W. & Peneff N.** - Beitrag zur Kenntnis der Hydrologie des Varnaer Sees [*Contributio in cognoscendam lacus* Varna *hydrologiam*]. 2 Tab., 7 Fig., Arb. Biol. Meeresstation Schwarz. Meer Varna, Bulg., 3, 1-16. Sofia (1934). **a - 1367**

Der Varnaer See vor und nach dem Kanal 1908. Die ausgeführten Untersuchungen in Bezug auf Temperatur, Salzgehalt, Schwefelwasserstoff, Uebereinstimmung mit dem Schwarzen Meer. Die Frage über die Bildung von Schwefelwasserstoff.

**Pettersson Hans** - Submarine Daylight and the Transparency of Sea Water [*De luce diurna submarina deque maris perluciditate*]. 6 figs., 1 table. Journ. Cons. Expl. Mer., X, 1, 48-65. Copenhague (1935). **a - 1368**

Description of the construction and use of the submarine actinometer, which is a simple contrivance used by the A. in collaboration with Mr. S. Landberg for measuring submarine daylight. Description of the transparency meter (T. M.) and of the scattering meter (S. M.). The results show that both the T. M. and the S. M. allow of a rapid survey of the optical properties of sea water *in situ*.

**Picotti Mario** - Il regime termico delle acque della Laguna Veneta [*De aquarum ratione thermica in lacuna Veneta*]. Tab. & 1 diagr., Atti R. Istit. Veneto Sc. Lett. & Arti, XCIV, Parte II, 87-103. Venezia (1935). **a - 1369**

Dati di osservazione. Esame dei dati. Conclusioni sul regime termico lagunare.

**Picotti Mario** - Chimie générale (2me Rapport) Développement et approximation de la réfractométrie de l'eau de mer [*Chemia generalis. (Relatio secunda). De aquae marinae refractometria*]. Rapp. Pr.-Verb. Comm. Expl. Scient. Médit., IX (nouv. sér.), 31-38. Paris (1935). **a - 1370**

( — ) V. Memoria CCXXI, R. Comitato Talassografico Italiano. Venezia (1935).

Résumé historique des méthodes pour déterminer la salinité par l'indice réfractométrique. Ce rapport contient un aperçu des recherches océanographiques dans lesquelles cette méthode réfractométrique a été adoptée. Parmi celles-ci l'A. considère seulement quelques-unes, avec des mesures faites dans le seul but de préciser la dépendance entre le dit indice et la teneur totale en sels d'une eau de mer.

**Platania Giovanni** - La superficie di estrema visibilità in mare da alta quota [*De maxima maris perluciditate, a magnis perspecta coeli altitudinibus*]. Ann. R. Ist. Sup. Nav., III, 2, 111-118. Napoli (1934). **a - 1371**

L'A. fa seguito a tre altri suoi lavori: La trasparenza del mare da alta quota. « Boll. Soc. Nat. », Napoli, vol. 41, 1930. La trasparenza del mare e la visibilità da alta quota. « Notiz. tecn. dell'Aeron. » Roma, vol. 6, 1930. Trasparenza del mare e visibilità da alta quota. « Nuovo Cimento », vol. 8, 1931; accenna all'equazione della concoide, da lui ritrovata, ad esperimenti per controllare i risultati da lui ottenuti applicando la proprietà della concoide refratta e dimostra che tali risultati affermano la necessità della conoscenza di tale equazione da parte di coloro che vogliono trattare il problema della visibilità in mare d'oggetti sommersi.

**Rakestraw Norris W. & Lutz Frank B.** - Arsenic in Sea Water [*De arsenico in aqua marina*]. 2 tabl., Biol. Bull., LXV, 3, 397-401. Lancaster, Pa. (1933). **a - 1372**

The data yield two important general results: 1) Failure to bear out the previous findings of Gauthier, who reported a considerable increase in As concentration with depth. On the contrary, although a small amount of the As may be removed from the water at certain stations by Diatoms etc., this process is not nearly so important or general as in the case of phosphorous. 2) Corroboration of the assumption of Atkins and Wilson that the greater portion of the As in sea water is present in the form of arsenite.

**Rakestraw Norris W.** - Studies on the Chemistry of Sea Water [*De aquae maris chemia*]. Woods Hole Oceanogr. Instit., Rep., 1933, App., 28-29. Woods Hole, Mass. (1934). **a - 1373**

Continuation of an intensive chemical survey of the Gulf of Maine; in addition to routine analysis, samples, collected during the trips of the « Atlantis » from June to October 1934, were brought back to the chemical laboratory of the Institution for work on boron, iron, copper, and for other purposes. Study of the significance of nitrite in the nitrogen cycle. Start of a collection of the ash residues of various marine organisms.

**Regnard M. P.** - Sur un dispositif destiné à éclairer les eaux profondes [*Apparatus qui aquas peraltas illuminat*]. 1 fig., Résult. Camp. Scient. accomplies par Albert I, Prince Souverain de Monaco. Fasc. LXXXIX, 361-363. Monaco (1934). **a - 1374**

Il s'agit d'une lampe électrique et d'une pile suspendues sur un cardan et placées dans une nasse. Le tout sera mis en essai dans les grands fonds près des Açores. Dans des expériences faites devant Groix par un fond de 20 mètres environ, la lampe a fonctionné et la nasse a rapporté plusieurs espèces de crustacés.

**Rehner John Jr.** - The Structure of Water and Ionic Solutions [*De aquae structura deque solutionibus jonicis*]. Rev. Sc. Instr., V, 1, 2-3. Lancaster & New York (1934). **a - 1375**

On hand of an important recent publication by Bernal and Fowler (See: Journ. Chem. Phys., 1, 515, 1933) the author gives a summary of a theory of the structure of water and aqueous ionic solutions that is unusually successful in accounting for the behaviour of aqueous systems, and particularly the anomalous mobilities of the ions (OH) and ($OH_3$).

**Revelle R.** - Physico-Chemical Factors Affecting the Solubility of Calcium Carbonate in Sea Water [*Factores physico-chemici qui influunt in solubilitatem carbonati calcici in aqua marina*]. 1 table. Journ. Sedim. Petrol., IV, 3, 103-110. Tulsa, Okla. (1934). **a - 1376**

Results of a quantitative study of the relative effects on the solubility of $CaCO_3$ in sea water of variations in salinity, temperature, hydrostatic pressure, and carbon dioxyde content, which show that it is at least certain that surface sea water at a temperature of 30° C is saturated with $CaCO_3$. A table is presented showing the comparative effects on the solubility of changes in salinity, temperature, depth, and carbon dioxide content. It is shown that except for water in equilibrium with the atmosphere the most important factor controlling the solubility of $CaCO_3$ in sea water is the $CO_2$ content of the water, which, in turn, is chiefly dependent upon the nature and amount of biological activity.

**Revelle R. & Fleming R. H.** - The Solubility Product Constant of Calcium Carbonate in Sea Water [*Agitur de numero constante quoad solutionis productum carbonati calcici in aqua marina*]. 3 tabl. (Repr.) Proc. 5th Pacif. Sc. Congr. III, A5, 19, 2089–2092. Vancouver B. C. (1933). **a - 1377**

Account of an investigation carried out in an attempt to delimit experimentally the solubility product of calcium carbonate in sea water, by means of numerous equilibration experiments. The analytical data obtained corroborate the conclusion of previous workers that surface sea water under tropical conditions of temperature is approximately saturated with calcium carbonate, and show that it is obvious that variations in pH within the normal range of sea water, that is, between 7.7 and 8.2, are more important in the precipitation or solution of calcium carbonate than changes in salinity.

**Revelle R. & Moberg E. G.** - The Probable Rôle of Boron in the Buffer Mechanism of Sea Water [*De boro eiusque effectu in mechanismo occludenti aquae marinae* (*Anglice*: Buffer mechanism)]. 2 figs. (Repr.) Proc. 5th Pacif. Sc. Congr., III, A5, 29, 2147–2151. Vancouver, B. C. (1933). **a - 1378**

Results of the determination of the hydrogen-ion concentration, the titrable base, and the total carbon dioxyde of the sea water carried out on a large number of sea-water samples over a period of several years at the Scripps Institution of Oceanography. The discussion shows that the behaviour of the buffer mechanism of sea water is different from what it would be if it consisted entirely of salts of carbonic acid. Although it is not possible at this time to give a complete quantitative expression of the rôle played by the boron compounds, it is shown that they are the causes of many of the problems that have baffled investigators of the buffer relations in sea water.

**Richard J.** - Sur un appareil destiné à démontrer que la quantité des gaz dissous, dans les grandes profondeurs de la mer est indépendante de la pression [*Agitur de novo apparatu qui demonstrat gas solutum in maris maximis profunditatibus liberum esse a pressione*]. 5 fig. sur pl. Résult. Camp. Scient. accomplies par Albert I, Prince Souverain de Monaco, fasc. LXXXIX, 355–356. Monaco (1934). **a - 1379**

Appareil destiné à trancher expérimentalement la question dont dans le titre. Principe de l'appareil, construit par M. Leblanc pour les Campagnes scientifiques de S. A. S. le Prince de Monaco.

**Richardson B.** - Photo–Electric Measurements of the Penetration of Light in Sea Water, and the Results of Laboratory Photo–Electric Measurements of the Absorption Coefficient of Sea Water [*De mensuris photoelectricis quoad lucis penetrationem in aquam marinam. Agitur etiam de mensuris photoelectricis in laboratorio peractis quoad aquae marinae absorptionem eiusque coefficientem*]. 1 table (Abstr.), (Repr.). Proc. 5th Pacif. Sc. Congr. III, A5, 17, 2083–2084, Vancouver B. C. (1933). **a - 1380**

Abstract of a paper which will appear in the « Scripps Instit. Bull », containing the results of a study carried out in order to determine quantitatively the penetration of light for various depths in sea water during the summer, of 1930, in an area seven miles off the coast of La Jolla Calif. by submerging a Burt photo-electric sodium-vacuum cell to various depth levels in the ocean. During the summer of 1931 sea-water samples were brought to the laboratory and the absorption coefficient of sea water determined by using photo-electric cells which were sensitive to a definite band of wave length. These results summarized in a table show that in the laboratory experiments the absorption coefficients are higher than those for pure water.

**Riddel W. A.** - A Study of the Denigé Method for the Analysis of Phosphate in Sea Water [*Methodus* Denigé *ad analysim phosphatorum in aqua marina ducendam*]. Ann. Rep. Biol. Board Canada, 1933, 99. Ottawa (1934). **a - 1381**

In view of several difficulties experienced in the use of the Denigé method for the determination of phosphates in the waters of the strait of Georgia, a preliminary study has been made of several phases of the application of this method. This paper contains a brief summary of the results obtained.

**Riddel W. A.** - The Reduced Strychnine Method for Determining Nitrates in Seawater [*Methodus per strychninam ad nitrata in aqua marina determinanda*]. Ann. Rep. Biol. Board Canada, 1933, 99. Ottawa (1934). **a - 1382**

Description of a satisfactory procedure developed for the estimation of the dissolved nitrates in the waters of the strait of Georgia, involving the use of a Duboscq colorimeter, by means of the reduced strychnine method.

**Schulejkin W.** - Active Films on the Surface of the Sea [*De filmis activis ad maris superficiem*]. (In Russ. & Engl.). 2 figs. C.-R. Acad. Sc. U. R. S. S., I, 7/8, 494-501. Léningrad (1935). **a - 1383**

Author gives an account and an indirect confirmation of an hypothesis concerned with the origin of the quaint distribution of small ripples on the surface of the sea which forms such a fantastic and at the same time an apparently fixed pattern, showing that it depends upon the presence of films consisting of active surface substances. He gives also the description of a method of investigation which has permitted to determine the surface tension immediately upon the surface of the sea, *in situ*. A special apparatus designed for the purpose is also described here.

**Seiwell H. R.** - The Distribution of Oxygen in the Western Basin of the North Atlantic [*De oxygeni distributione per bacinum occidentalem Oceani Atlantici Nordici*]. Pap. in Phys. Oceanogr. & Meteorol., III, 1, Cambridge, Mass. (1934). **a - 1384**

**Seiwell H. R.** - Studies of Phosphorus and Oxygen Content of Western North Atlantic Basin [*De phosphoro et oxygeno quae continentur in sinu occidentali Oceani Atlantici Nordici*]. Woods Hole Oceanogr. Instit., Rep., 1933, 32-33. Woods Hole. Mass. (1934). **a - 1385**

Summary of a report including a descriptive discussion of the horizontal and vertical distribution of oxygen, the seasonal variations, and a theoretical discussion and calculation of the annual oxygen consumption and its relation to biochemical activity, and of another report on the nutrient phosphorus content of the western North Atlantic Basin. Indication of two other papers prepared for publication.

**Skopintzew B. A.** - The Determination of Iodine in Sea-Water [*Jodii in aqua marina determinatio*]. (In Russ., Eng. Rés.). 10 tables, Trans. Oceanogr. Inst., III, 3, 105-119. Moscow (1933). **a - 1386**

Description of a new method of determination of iodine-content in sea-water, elaborated in order to obtain more exact results than those obtained by the Reith's method. Accuracy and practical advantages of the new method.

**Skopintzew B. A.** - Bestimmung von kleinen Jodidmengen in Gegenwart von viel Chloriden und Bromiden [*Determinatur paululum jodurorum, chloruris plurimis et bromuris praesentibus*]. Ztschr. analyt. Chem., XCII, 175-184. München (1934). **a - 1387**

**Slocum Giles** - Sea Surface Temperature Summary for the Extreme Southeastern Gulf of Mexico 1912-33. [*De maris temperatura superficiali in extrema regione sud-orientali sinus Mexicani*]. 1 table. Monthly Weath. Rev., LXIII, 1, 33 & 6, 204. Washington D. C. (1935). **a - 1388**

Monthly and annual mean sea-surface temperatures in the extreme Southeastern Gulf of Mexico, computed to whole degrees, for the area which comprises the three 1° squares, 23° N. to 24°N., and 84°W. to 87°W., and lies immediately north of the Yucatan Channel, and from 90° W. to 94° W. and from 21° N. to 25° N.

**Soule Floyd M.** - Physical Oceanography of the Grand Banks Region from Data Collected by the International Ice Patrol Service in the Spring and Summer of 1933 [*Oceanographia physica regionis nomine* Grand Banks *ex datis collectis a Servitio internationali pro glacierum vigilantia, vere et aestate A. 1933*]. Woods Hole Oceanogr. Instit. Rep., 1933, 33-34. Woods Hole. Mass. (1934). **a - 1389**

Brief summary of the results of observations on temperatures and salinities carried out during the Ice Patrol season of 1933; data collected for the construction of surface isothermal charts of the region in the vicinity of the Grand Banks of Newfoundland. Results of a post-season northern cruise in the waters between Newfoundland and Labrador. A complete account of the work is published in U. S. Coast Guard Bulletin n. 23.

**Strand Embrik & Ozolinš** - Hydrographische Untersuchungen der Hydrobiologischen Station im Rigaer Meerbusen und im Baltischen Meere. V. [*Investigationes hydrographicae a Statione hydrobiologica peractae in Sinu Cylipeno* (*idest in Sinu Civitatis Rigae*) *et in mari Baltico. V*]. (Lett. Text. Dtsch. Rés.). Tab. Fol. Zool. & Hydrobiol. V, 2; VII, 1, 290-305; 30-37. Riga (1934). **a - 1390**

Diese Untersuchungen sind auf dieselben Linien wie früher ausgeführt worden. Die Angaben sind in Tafeln mit Datum, Zeit, Breite, Länge, t°, S. °/00 wiedergegeben.

**Thompson Thomas G. & Bremner Raymond W.** - The Determination of Iron in Sea Water [*De ferri in aqua marina determinatione*]. 1 fig., 2 tables. Journ. Cons. Expl. Mer, X, 1, 33-38. Copenhague (1935). **a - 1391**

1. A method has been described for the determination of iron in sea water capable of detecting as low as 0.00002 milligram atoms (about 0.001 mg.) of iron per kilo. 2. Fluorides and organic matter interfere with the determination and must be removed. 3. Errors that might be produced by the presence of sulfate ions are compensated by the preparation of standards containing equivalent quantities of these ions.

**Thompson Thomas G. & Bremner Raymond W.** - The Occurrence of Iron in the Waters of the North-East Pacific Ocean [*De ferro reperto in Oceano Pacifico Nord-occidentali*]. 5 figs., 5 tables. Journ. Cons. Expl. Mer., X, 1, 39-47. Copenhague (1935). **a - 1392**

Results of the analysis of surface samples whose collection began in 1931 and extended over a period of two years, with the exception of three months in 1932, in San Juan Channel from the Observation Platform of the field laboratories at Friday Harbor, Washington. A decided seasonal variation in the soluble and insoluble iron content of sea water has been observed. The minimum values occur in the spring and summer and the maximum in the winter. A number of factors influence the distribution of the total iron. The iron content of the open ocean is considerably less than that of coastal and inland waters. A high total content occurs between 800 and 1100 meters, which is the same zone where extremely low oxygen values were secured.

**Tully J. P.** - A Preliminary Oceanographical Survey in Nootka Sound [*Exploratio prior oceanographica regionis* Nootka Sound]. Ann. Rep. Biol. Board Canada, 1933, 101. Ottawa (1934). **a - 1393**

Account of an investigation made during the course an expedition on board the « Wm. J. Stewart » of one stage of the summer physicochemical conditions of the three inlets and of the sea directly contiguous to Nootka Sound. The investigation consisted of sampling the column of water at each of eighteen stations in Nootka sound, and of observations of time, tide, depth, temperature, density, and an analysis for pH and dissolved oxygen, silicates, and phosphates at the standard depths used at the station. Influence of changes in the characteristics of the tidal current or the distribution of the densities and temperatures of the waters around Nootka bank on migration of fish that takes place through this area.

**Tully J. P.** - Investigation into the Coeruleo-Molybdate Method of Colorimetric Analysis for Dissolved Phosphate [*Investigationes in methodum ceruleo–molybdenicam pro analysi colorimetrica phosphatorum solutorum*]. Ann. Rep. Biol. Board Canada, 1933, 102. Ottawa (1934). **a - 1394**

Results of some observations made with a view to determine the relationship between the true and apparent concentrations of phosphate as evinced by the test under application of the coeruleo-molybdate method of Denigé.

**Vatova A.** - L'anormale regime fisico-chimico dell'alto Adriatico nel 1920 e le sue ripercussioni sulla fauna [*De abnormi regimine physico–chimico maris Hadriatici septentrionalis A. 1929 eiusque effectibus in faunam*]. 3 carte, Thalassia, I, 8, 1-49. Venezia (1934). **a - 1395**

Misure idrografiche eseguite a Bagnole (Rovigno) nel 1929 e dati raccolti nell'Alto Adriatico durante il mese di marzo. Effetti delle temperature anormali sulle specie ittiche costiere e di fondo.

**Vincent P. C.** - An Application of a New Method Due to Professor Albert Griffiths, of Determining a Small Change in the Density of a Liquid [*Agitur de nova quadam ratione a prof.* Albert Griffiths *inventa ad exiguam variationem in liquidi densitate determinandam*]. Proc. Phys. Soc., XLV, 833-835. London (1933). **a - 1396**

**Vinogradov A.** - Origin of Iodine (and Bromine) in Oil–Bearing Waters [*De jodii origine in aquis petroliferis*]. (In Russ., Engl. Summ.). C.–R. Acad. Sc., I, 4, 214-216. Léningrad (1934). **a - 1397**

After a brief information concerned with the deep-seated waters of the oil-fields and the recent marine muds of several seas which contain a great amount of iodine, the author comes to the statement that the deep-seated waters of the oil-bearing regions containing a great amount of iodine, have their sources in fossil mud-water of marine bottoms (but not in connate water or fossil sea-water).

**Wagner Georg** - Vom Salz des Toten Meeres [*De salsedine Paludis Moeotidis*]. 8, Natur u. Volk, LXV, 3, 108-116. Frankfurt a. M. (1935). **a - 1398**

Nach einigen einleitenden allgemeinen Bemerkungen über dies Meer, welches, dem Vf. nach, nicht so öde ist, wie man es sich allgemein vorstellt, bespricht der Vf. die verschiedenen Salzablagerungen, wobei er zwischen dem Salz des Toten Meeres und den Salzfelsen an seinem SW–Ende einen scharfen Unterschied macht. Alter des Salzes, seine Zuflüsse, industrielle Gewinnung verschiedener Salze.

**Washburn E. W., Smith E. R. & Frandsen M.** - An Accurate Methode for Measuring Small Density Differences. In « The Isotopic Fraction of Water » [*Methodus exacta ad exiguas densitatis differentias mensurandas in aquae partitione isotopica*]. Bur. Standards, Journ. Research, XI, 453-462. Washington D. C. (1933). **a - 1399**

Description of a differential pycnometer method which was devised for measuring the specific gravity of heavy water. With this method an accuracy of one part in a million was obtained.

**Wegener K. & Niederdorfer E.** - Der Maximaldampfdruck über festen Salzen. (Vorl. Mitt.) [*De maxima vaporis pressione in sales solidos*]. 2 Tab. Ann. d. Hydrogr., LXII, 10, 415-418. Berlin (1934). **a - 1400**

Nach allgemeinen Beobachtungen über die für Salzlagerbildungen nötigen Bedingungen suchen die Vf. Vf. hier durch Experimente festzustellen, mit welcher Geschwindigkeit einzelne Salze ($NaCl$, $MgSO_4$ und $MgCl_2$), in einen mit Wasserdampf gesättigten Raum gebracht, das Wasser aufnehmen und bei welchem Dampfdruck die Wasseraufnahme beginnt. Die Ergebnisse der Beobachtungen der maximalen Dampfspannung über festen Salzen werden in einer Tabelle wiedergegeben.

**Wibraut–Isebree Moens N. L.** - Zoutgehalte van boezem– en polderwater in Noordholland [*Sale quod continetur in aquis quae* boezem– *et* polderwater *dicuntur, in Hollandia septentrionali*]. Ned. kruidk. Arch. XLIV, 146. Leiden (1934). **a - 1401**

**Bureau du Conseil. Service hydrographique** - Bulletin hydrographique pour l'année 1933 publié par. . . . [*Relationes hydrographicae A. 1933. Editae a. . . .*]. 4 cartes, tabl. Cons. Expl. Mer., Copenhague (1934). **a - 1402**

Températures et salinités de l'eau de surface et de profondeur: du Golfe de Bothnie et de la Baltique, du Secteur de Transition (le Cattegat), de la Manche, de la Mer du Nord, de l'Atlantique. – Chimie et physique. Détermination de l'oxygène, de l'azote des différentes compositions, du phosphate, de l'alcalinité et des qualités optiques. Hauteurs moyennes mensuelles. Errata: Bulletin Hydrographique, 1932.

**Hydrographic Office** - Dynamic Oceanographic Data for the Central Eastern Pacific Ocean and the Eastern Pacific Ocean [*Dati oceanographici dynamici pro Pacifico orientali et centrali*] Num. tabl. v + 53, pp. U. S. Hydr. Off., 212. Washington D. C. (1934). **a - 1403**

Preface by Rear Admiral W. R. Gherardi. General Statement by R. H. Fleming. Table of corrected dynamic oceanographic data for 127 oceanographic stations occupied by the U. S. S. « Hannibal ». Statement relating to data collected by yacht « Velero III », Hancock Expedition. Table of corrected dynamic oceanographic data for 19 oceanographic stations occupied by yacht « Velero III ». Table of surface temperature and salinity data collected by: U. S. S. « Chaumont », U. S. S. « Portland », U. S. S. « Sirius », U. S. S. « Vega », U. S. S. « Omaha », U. S. S. « Henderson », U. S. S. « Nitro ».

**Imperial Marine Observatory** - The Temperatures and Densities of Sea-Water Along the Japanese Coasts (Jan.–April, 1934) and (May–Aug., 1934) [*De aquae marinae temperatura atque densitate praeter litora Japonica*]. Tables. Journ. Oceanogr., VII, 1 & 2, 367-394, & 461-488. Kobe (1934 & 1935). **a - 1404**

**Imperial Marine Observatory** - Results of the Surface Observations in the Sôya-Kaikyô and the Aniwa-Wan [*Resultatus ex observationibus ad superficiem peractis in regionibus* Sôya-Kaikyô *et* Aniwa-Wan]. Journ. Oceanogr. VII, 2, 497-510. Kobe (1935). **a - 1405**

**Imperial Marine Observatory** - A Note on the Oceanographical Studies of the Black Sea [*De studiis oceanographicis in ponto Euxino peractis*]. Journ. Oceanogr., VII, 2, 511-528. Kobe (1935). **a - 1406**

**E. C. M.** - Speculazioni negli abissi oceanici [*De abyssis oceanicis*]. Riv. Cult. Mar., X, 3/4, 545-548. Roma (1935). **a - 1407**

Cenno sui più recenti lavori di Beebe.

**An.** - Hydrological Work at Polar Station [*De operibus hydrologicis in stationibus polo proximis*]. (In Engl.). Bull. Arct. Inst., 6/7, 294. Leningrad (1934). **a - 1408**

Brief account of the hydrological work carried out at Bear Island and Cape Cheliuskin.

## Energia marium – Penetratio energiæ solis radiantis.

**Claude Georges** - Sur l'énergie thermique des mers. La campagne de « la Tunisie » [*Agitur de energia thermica marium. Navis* « Tunisie » *navigatio*]. C. R. Acad. Sc., CC, 12, 993-997. Paris (1935). **a - 1409**

Exposé du second voyage de l'A. dans les mers du Brésil en vue d'organiser une installation technique permettant d'utiliser dans la production d'énergie les différences de température entre les eaux de la surface de la mer et celle qui existe aux grandes profondeurs. Etant donné qu'il avait déjà réussi d'installer des usines fixes côtières et qu'il y avait rencontré de très grandes difficultés pour l'immersion du tube de prise d'eau froide, l'A. a pensé qu'il serait peut-être plus facile d'immerger un pareil tube en pleine mer, à bord d'un bateau pouvant constituer une usine flottante se déplaçant. Dans la présente note il énumère sommairement quelques péripéties de sa nouvelle entreprise.

**Claude Georges** - Sur la campagne de la « Tunisie » [*Agitur de navigatione navis* « Tunisie »]. 1 fig. C. R. Acad. Sc., CC, 17, 1454-1458. Paris (1935). **a - 1410**

Complément à la Note précédente (v. C. R., CC, 993, 1935) concernant la facilité des mouillages en haute mer et par fond de 600 m. à 1000 m. et observations faites au cours des mouillages sur la température sous-marine prise avec deux thermomètres à renversement dont les indications simultanées ne différaient jamais plus de 0°,1. L'A. décrit ensuite l'immersion d'un tube nécessaire pour l'utilisation de l'énergie provenant de la différence des températures de l'eau de surface et de l'eau profonde en vue de fabrication de la glace avec un rendement exceptionnel, grâce à l'eau froide du fond.

**Halbfass Wilhelm** - Kann das Mittelmeer zur Wasserkraftausnützung dienen? [*Num vis hydraulica percipi potest a mari mediterraneo?*]. Peterm. Mitt., LXXX, 1, 17. Gotha (1934). **a - 1411**

Kurze Erörterung eines Projektes den Niveauunterschied zwischen dem Spiegel der tiefsten Depression der Sahara, der Qattara, und dem des Mittelmeeres zu einer Kraftverwertung auszunutzen. (S. auch: Geogr. Journ. LXXXII, 4, 1933).

**Halbfass Wilhelm** - Der Jahreswasserhaushalt der Erde. Ist er quantitativ eine konstante Grösse? [*De aquae terrestris annua oeconomia. Num ea est constans?*]. 1 Tab., Peterm. Mitt. LXXX, 5, 6, 137, 140; 177-179. Gotha (1934). **a - 1412**

Der Vf. erörtert die folgenden Probleme: 1. Wie gross ist der numerische Betrag der Jahresbilanz des Wassers der Erde? 2. Ist dieser Betrag, von periodisch wiederkehrenden kleineren Abweichungen nach unten oder nach oben abgesehen, eine konstante Grösse oder nicht? (Siehe auch Bemerkungen zu diesem Artikel von Prof. Dr W. Meinardus, Peterm. Mitt., LXXX, 7/8).

**Hulburt E. O.** - The Blue Light in Sea [*De maris luce coerulea*]. Science, LXXXI, 2099, 293-294. New York (1935). **a - 1413**

An attempt to explain the interesting observation made by Dr. Beebe during his descents into the sea in the bathysphere during the summer of 1934, that from 200 feet down through the spectroscope the blue in the water is gradually replaced by violet, though at no time of the descent there is any trace of violet or lavender. It seems that the blue fluorescence of the eye when subjected to ultra-violet and violet light may be the explanation of this fact.

**Martin Henry** - Le navire « Tunisie » usine flottante pour l'utilisation de l'énergie thermique des mers chaudes par le procédé Claude–Boucheret. [*Agitur de navi* « Tunisie » *quae considerari potest ac officina fluctuans qua percipi potest marium energia thermica ex methodo a* Claude–Boucheret *inventa*]. 8 fig. Génie Civil, CV, 12, 253-256. Paris (1934). **a - 1414**

Sur le départ du navire de Dunkerque pour le Brésil et sur les travaux que la « Tunisie » devra accomplir sur place.

**Spakovskij B.** - Dispersion of Supersonic Waves in a Liquid [*De undis ultrasonoris earumque dispersione in liquidum*]. C. R. Ac. Sc. U. R. S. S., III, 21 Sept., 588-594. Léningrad (1934). **a - 1415**

Simple theoretical considerations lead the author to deduce that dispersion of sound waves in liquids will only occur if vibratory degrees of freedom contribute appreciably to the specific heat at constant pressure. He communicates the results of measurements of ultrasonic wave-length which have been carried out by using an acoustic interferometer which consists of a piezoelectric oscillator and a reflector, the frequencies of the supersonic waves generated being measured by a wavemeter. Within limits of error of 1 % no change in the velocity of propagation of the waves in water and various organic liquids could be detected.

**Timmermans P. D.** - Proeven over den invloed van golven op een strand. In verband met enkele waarnemingen aan de Nederlandsche kust

[*De undarum influentia in oram maritimam. Observationes adiunguntur ad litora Hollandica peractae*]. Figs. Leidsche geol. meded. VI, 3, 231-386. Leiden (1935). **a - 1416**

**Vercelli F.** - Le recenti misure subacquee di radiazione solare nel mare di Capri [*De radiatione in mari apud Capreas*]. Atti Soc. It. Progresso delle Scienze, XXIII Riunione, II, 110-129. Roma (1935). **a - 1417**

Ricordati i concetti generali e fatti alcuni richiami storici sulle misure di radiazione in mare, sono esposte le idee direttive della teoria e dei metodi applicati nelle recenti esplorazioni compiute in Italia, e in particolare nelle acque di Capri. I risultati sono riassunti e messi a raffronto con i dati di precedenti determinazioni.

**Vercelli Francesco** - La luminosità negli abissi marini [*De maris abyssorum luminescentia*]. Realtà, 8, 305-308. Milano (1934). **a - 1418**

Modificazioni subite dalle radiazioni luminose nel passaggio attraverso l'acqua del mare fino agli abissi marini. Limiti della luminosità negli oceani; istrumenti e dispositivi per l'indagine fotoscopica a profondità. Luminosità prodotta dagli organi fotogeni degli animali abissali.

**An.** - Le laboratoire hydrodynamique marin de Biarritz [*De laboratorio marino hydrodynamico in* Biarritz]. 4, Génie Civil, CV, 14, 314-315. Paris (1934). **a - 1419**

Installation à Biarritz d'un nouveau laboratoire. Les impulsions de la mer sont dirigées vers l'appareil quelle que soit leur force, et leur énergie est utilisée pour élèver des masses d'eau.

**An.** - Proyecto de aprovechamiento de la energia de las mareas en la bahia de Fundy [*De utenda aestuum energia in baja* Fundy. *Ratio*]. Ibérica, XLIV, 1077, 4. Barcelona (1935). **a - 1420**

# MARIS DYNAMICA

## Circulatio oceanica - Currentiae.

**Antonov L.** - Notes sur les courants dans la partie sud-est de la Mer de Kara [*Notae de currentiis in regione sud-orientali Maris* Kara]. (En russe). Ghidrogr. i Korablev., 1, 33-39. Leningrad (1934). **a - 1421**

**Barlow E. W.** - The 1910 to 1935 Survey of the Currents of the Indian Ocean and China Seas [*De currentiarum Oceani Indiani et Marium Sinensium adumbratione in tabulis ab A. 1910 ad A. 1935*]. 9 figs. & charts, Mar. Obs., XII, 120, 153-163. London (1935). **a - 1422**

The Indian Ocean. The circulation of the Indian Ocean. The Monsoon circulation. Currents of the seas adjacent to the Indian Ocean. New knowledge gained. The subsurface circulation. The John Murray expedition. Sea surface temperatures.

**Carruthers J. N.** - The Flow of Water through the Straits of Dover as Gauged by Continuous Current-Meter Observations at the Varne Lightvessel (50°56′ N. – 17′ E.) Part II. Second Report on Results Obtained [*De currentiis, in fretis quae ab urbe* Dover *nomen capiunt, ex diuturnis observationibus peractis per apparatum metatorium in navi farum ferente ad* Varne *pertinente constitutum. Pars secunda: Secunda relatio de resultatibus obtentis*]. 7 tables. Fish. Invest., Min. Agr. & Fish., Ser. II, XIV, 4, 4-67, H. M. Stat. Off. London (1930). **a - 1423**

Part I of this report (published in 1928) took account of the period June 1926 to January 1928. In this second part the results from the Varne Drift-Indicators Observations up to the 11th April, 1935, are presented. Section I. Introduction: General remarks as to the extent and nature of data. The material - source, and comments on reliability. Intended applications. Section II. Comments on data. Section III. The water movement of the deeper levels of Dover Straits. Section IV. The seasonal strength variations of the Dover Straits current compared with salinity through the year. 6 Appendices.

**Carruthers J. N.** - A « Vertical Log » Current-Meter [*Apparatus currentiarum metator nomine* « Vertical Log. »]. 6 Journ. Cons. Expl. Mer., X, 2, 151-168. Copenhague (1935).

(—) Voir: Rev. Hydrogr., XII, 2, 63-79. Monaco (1935). **a - 1424**

Vertical log is the convenient name which, for brevity and to avoid confusion, has been proposed for a simple, cheap, and very study current-measuring apparatus recently tested. The purpose of the instrument and detailed description of it. Tests and results. References.

**Chevey P. & Carton P.** - Les courants de la Mer de Chine méridionale et leurs rapports avec le climat de l'Indochine [*De currentiis Maris Sinensis meridionalis earumque correlationibus cum climate Indosinensi*]. 8 pl. h. t. Inst. Océan. Indoch., Note 26-e, 1-13. Hanoï (1935). **a - 1425**

Après une brève remarque contenant une précisation du sens qu'il convient de donner au mot « courant » en océanographie, les A.A. communiquent les résultats des recherches sur les courants marins de la Mer de Chine que l'Institut Océanographique de l'Indochine poursuit d'une façon particulièrement serrée depuis deux ans. Sur 8 planches hors texte sont indiqués: les courants de la Mer de Chine méridionale, le régime des vents sur la péninsule indochinoise, les coupes hydrologiques aux divers secteurs, les isothermes de l'air et de la surface de la mer, en mousson d'hiver de Nord-Est et, en mousson d'été, les isothermes à 50 m. de profondeur, à 100 m. et les lignes d'égal degré de continentalisme pour l'Indochine.

**Deacon George E. R.** - Nochmals: Wie entsteht die Antarktische Konvergenz ? [*Quo modo efformatur cumvergentia antarctica ?*]. 2 Abb., 1 Taf. Ann. d. Hydrogr., LXII, 12, 475-478. Berlin (1934). **a - 1426**

An Hand weiterer Untersuchungen des von der letzten Zirkumpolar-Fahrt des Kgl. Britischen Forschungsschiffes « Discovery II » gewonnenen Beobachtungsmateriales bringt Vf. einen Nachweis, dass die Antarktische Konvergenz erheblich anders entsteht als es in seinen eigenen und in den von H. U. Sverdrup früher gemachten Annahmen zum Ausdruck gekommen ist. (S. auch « Ann. Hydr. », 8,

315, 1934). Vf. behauptet, dass sowohl für die Existenz der Konvergenz als auch für ihre Lage die Bewegungen des Tiefen– und Bodenwassers massgebend sind, weil sie nämlich über den Verlauf der Oberflächen–Strömungen entscheiden. Diese Annahme ist das Gegenteil zu den bisher von Sverdrup und Vf. verfochtenen Ansichten.

**De Buen Rafael** - Hydrographie du Détroit de Gibraltar en Mars 1933 (Croisières du navire « Xauen ») [*Sinus Gaditani hydrographia. Mense Martio 1933. Navigatio speculatoria navis* « Xauen »]. 4 Rapp. Pr.–Verb. Cons. Expl. Mer. Rapp. Atlantique, XCIII, 25-29. Copenhague (1935). **a - 1427**

Bien qu'il reste encore, pour connaître le régime du Détroit de Gibraltar, à déterminer exactement les caractéristiques du courant profond, et son influence dans l'Atlantique voisin, ces recherches ont précisé nos idées sur le régime des courants de surface dans la zone méditerranéenne voisine du Détroit de Gibraltar, sur l'existence d'ondes de marée profonde dans la zone inférieure du détroit, occupée par les eaux salées de la Méditerranée, et sur la transformation du courant inférieur en courant incliné vers la surface, par l'influence du relief du fond du Détroit de Gibraltar.

**Felber O. H.** - Oberflächenströmungen des Nordatlantischen Ozeans zwischen 15° und 50° N. B. [*De currentiis ad superficiem in Oceano Atlantico Sept. inter 15um et 50um l. N.*]. Aus dem Arch. Dtsch. Seew. Hamburg (1934). **a - 1428**

Auf Grund der vom Kon. Nederl. Meteorol. Inst. veröffentlichten Angaben hat der Vf. weiter zwölf monatliche Karten über die allgemeine Oberflächenzirkulation der oben angegebenen Zone ausgearbeitet mit besonderer Berücksichtigung des Aequatorialstroms, des Golfstroms, des Kanarienstroms und der Lage der wichtigsten Konvergenzlinien, d. h. südlich von der Neufundland–Bank und der subtropischen Konvergenzlinie. Die Abweichung des Oberflächenstroms von dem Windtrift ist auch erörtert.

**Goldsbrough G. R.** - Ocean Currents Produced by Winds [*De oceanicis currentiis a ventis excitatis*]. Proc. R. Soc., 148A, Jan. 1, 47-58. London (1935). **a - 1429**

It has been shown by Ekman and Jeffreys that the effect of a steady wind upon a plane rotating sea is to produce a current in a direction inclined to that of the wind. Under certain conditions, the resultant drift of the water is perpendicular to the wind, but the surface current is inclined at an angle of 45° to the wind. A comparison of prevailing winds and the corresponding surface currents at various points of the actual oceans has shown that the angle between the two varies considerably but in general it is less than 45°. There may be many causes for this difference between theory and observation; the purpose of this paper is to examine the effect of the curvature of the earth. It is shown that under the same conditions as those assumed by Ekman and Jeffreys, the angle will not be 45° except in the polar regions, where the law is found to hold. A further result appears from the analysis. The currents formed by winds which circulate in close curves are themselves moving in similar closed curves, but the latter curves are displaced to the westward. An application is made to the motions of the waters in the North and South Atlantic Oceans. (Author).

**Hachey H. B.** - The Replacement of Bay of Fundy Waters [*Aquarum amotiones in baja Fundy*]. 4 figs. Journ. Biol. Board of Canada, I, 2, 121-131. Toronto (1934). **a - 1430**

Comparative values for the replacements of bay of Fundy water have been determined for each year of the period 1924–1930 inclusive, by a consideration of the differences between the annual ranges of temperature at various levels in the bay of Fundy. These differences in annual ranges of temperature may be correlated to some extent with the average amount of drainage water from the St. John river system and the « adverse excess of wind ». (Author).

**Hachey H. B.** - Movements Resulting from Mixing of Stratified Waters [*De motibus ex mixtione aquarum stratificatarum*]. 5 figs. Journ. Biol. Board of Canada, I, 2, 133-143. Toronto (1934). **a - 1431**

Experiments in mixing steadily at one end of a laboratory tank an upper fresh water with a lower salt layer demonstrate surface and bottom movements to the mixing area and an intermediate movement of mixed water away from it, which correspond with observations made in an inlet of the sea into which fresh water discharges. If fresh water is merely added at the mixing area to the tank containing salt water the outward movement is at the surface, and there is no inward surface movement. (Author).

**Hachey H. B.** - The Effect of Storm on an Inshore Area with Markedly Stratified Water [*De tempestate apud litora eiusque effectibus aquarum valde stratificatarum causa*]. 4 figs., 3 tables. Journ. Biol. Board Canada, I, 4, 227-237. Toronto (1935). **a - 1432**

The hydrographical conditions in the water area off the south coast of Nova Scotia were investigated at a time during which a North Atlantic tropical cyclone was forming and subsequently moving along the characteristic track of these cyclones (Hachey 1934). Coincident with the formation and the subsequent movement of such a cyclone and repulsion of offshore surface waters to the south coast of Nova Scotia with consequent removal of intermediate and bottom waters. The mixing of the waters intensified by wind actions, at approaching storm. Markedly stratified waters are thus temporarily replaced by a body of thoroughly mixed water.

**Kobe G.** - Der hydrographische Aufbau und die dadurch bedingten Strömungen im Skagerrak [*De structura hydrographica deque currentiis regionis* Skagerrak]. 9 Abb., 62 S. Veröff. Inst. Meeresk., N. F. A., 26. Berlin (1934). **a - 1433**

Ergebnisse der während 1902–1914 in den Monaten Februar, Mai, August und November von Schweden und Deutschland auf 18 Stationen im Skagerak unternommenen Untersuchungen über Temperatur, Salzgehalt, Strömungen und die damit zusammenhängenden Faktoren. Der Wasseraustausch zwischen der Nord– und Ostsee.

**Le Danois Ed.** - Les transgressions océaniques [*De oceanicis transgressionibus*]. 50 fig. tabl. Rev. Trav. Off. Pêches Marit., VII, 4, nº 28, 373-462. Paris (1934). **a - 1434**

Préface. Introduction. I: Les eaux atlantiques: A. Principe de l'immixibilité des eaux. B. Classification des eaux atlantiques. C. Distribution des diverses eaux atlantiques. II: Les mouvements des eaux atlantiques: A. Les transgressions océaniques. B. Causes et périodicité des transgressions. C. Courants marins. III: Les transgressions dans la partie orientale de l'Atlantique Nord: A. Zone subtropicale de l'ancien continent. B. Zone des eaux ibériques occidentales. C. Zone du golfe de Gascogne. D. Zone du sud–ouest des Iles Britanniques. E. Zone du nord des Iles Britanniques et Mer du Nord. F. Zone des mers boréales européennes. Voir aussi: Schubert. Ann. d. Hydrogr. LXIII, 4, 140–143, Berlin.

**Morsier (De) P.** - La Circulation des eaux de l'Atlantique Nord [*De aquarum circulatione in Oceano Atlantico Nordico*]. Rev. Marit., Juin, 754-779. Paris (1934). **a - 1435**

**Nomitsu Takaharu & Takegami Tohichiro** - Coast Effect Upon the Ocean Current and the Sea Level [*De litorum effectibus in currentiam*

*oceanicam atque etiam in maris livellum*]. Mem. Coll. Sc., A. XVII, 93-141. Kyoto (1934). **a - 1436**

Influence of the coast upon the wind–, the barometric–, and the convection–current in the steady state for the cases of (a) « no bottom current », (b) « no bottom–friction », and (c) « a finite bottom–friction ». The surface slope caused by the land effect is also determined in each case. (Authors).

**Ogaki K. & Ikeda K.** - On the Results of the Observations of the Currents and the Temperatures in the Sea off the West Coast of Kamtchatka [*De resultatibus ex observationibus currentiarum et maris temperaturarum longe a litoribus occidentalibus peninsulae* Kamtschatka]. (In Jap., Engl. Summ.). Bull. School. Fish., IV, 9. Sapporo, Japan (1934). **a - 1437**

**Okada Mituyo** - Estimation of the Steady Surface Current in Coastal Waters Based on the Observation of Salinity and Soluble Silicate Content [*De aestimatione currentiae ad superficiem in aquis litoreis. Aestimationis fundamenta ponuntur in observationibus salsedinis atque etiam in silicato solubili*]. 2 figs., 2 tables. Bull. Jap. Soc. Sc. Fish., III, 3, 121-124. Tokyo (1934). **a - 1438**

Study of the possibility of application of Knudsen's law to determine the steady surface current in coastal waters based on the observation of salinity S, and soluble silicate content P. It allows the determination of the direction without distinguishing sense and the relative speed of the current, but does not give means for determination of the sense and the absolute magnitude of the current.

**Okada Mituyo** - A Graphical Method of Determining Ocean Currents [*Graphica methodus ad currentias determinandas*]. 2 figs., 2 tables. Bull. Jap. Soc. Sc. Fish., III, 5, 231-234. Tokyo (1935). **a - 1439**

To complete a previous study on « Estimation of steady surface current in coastal waters based on the observation of salinity and soluble silicate content » (Bull. Jap. Soc. Sci. Fish., III, 3, 121–124, 1934), the author studies the possibility of determining the sense and the absolute magnitude of the current by his method. He concludes that the method can be employed at least as first approximation, to estimate the horizontal flow of the surface layer.

**Palmén E.** - Strom-und Windbeobachtungen an den Feuerschiffen in den Jahren 1932 und 1933 [*De currentiis atque ventis observatis in navibus farum ferentibus A. 1932 et A. 1933*]. 1 Karte, 3 Tab., 9 Taf. Merent. Julk. Havsforskn. inst. Skr., 94, 4-55. Helsinki (1934). **a - 1440**

Ergebnisse der Strom– und Windbeobachtungen an den Feuerschiffen Finnlands, welche in den Jahren 1932 und 1933 nach dem früheren Programme mit drei täglichen Beobachtungsterminen fortgesetzt worden sind. In den Tabellen sind die Stromgeschwindigkeit in cm. pro Sekunde und die persönlichen Abweichungen in den Windschätzungen auf den verschiedenen Feuerschiffen angegeben.

**Römer Ernst** - Anhäufung stationärer Stromkabbelungen in den nordwestafrikanischen Gewässern. [*De currentiis quae in unum convergunt in maribus africanis nord-orientalibus*]. 3 Tab., 2 Taf. Ann. d. Hydrogr., LXIII, 1, 10-17. Berlin (1935). **a - 1441**

Die zu Grunde der Arbeit liegenden Beobachtungen sind im Raume von rd. 12°N, 18°W und 9°N, 15°W durchgeführt worden. Die Natur der Stromkabbelungen. Die Auswertung des Materials: Die Oerter der Stromkabbelungen im Monatsmittel, die Richtung der Kabbelung, Wassertemperaturen, Lebewesen im Wasser mit und ohne Verbindung mit den Kabbelungen. Die Ursachen der Stromkabbelungen. Verschiedene Annahmen. Noch nicht aufgeklärte Probleme.

**Schubert** (v.) **O.** - Die Theorie der Transgressionen von Le Danois und ihre Beziehung zum Golfstrom-Problem [*De transgressionum ratione a* Le Danois *inventa eiusque correlationibus cum problemate circa currentiam quae* Golfstrom *nomen habet*]. 1 Taf., a. T. Ann. d. Hydrogr., LXIII, 4, 140-143. Berlin (1935). **a - 1442**

Kritische Betrachtungen anlässlich der oben angegebenen Theorie, (Rev. Trav. Off. Pêch. Marit. VII, 4, 28, Paris 1934). Vf. betont die Bedeutung dieser Studien über die Intensitätsschwankungen der Transgressionen, kann sich aber der von Le Danois auf reiner Intuition aufgebauten Théorie nicht anschliessen.

**Schulz Bruno** - Flaschenpostuntersuchungen im südlichen Kattegat, 10. bis 17. August 1931 [*Inquisitiones peractae per buticulas fluctuantes in* Kattegat *merid. a die 10 ad diem 17 mensis Augusti 1931*]. 3 Fig., 5 Tab., 5 Taf. Ann. d. Hydrogr., LXIII, 1, 1-10. Berlin (1935). **a - 1443**

1. Ort und Zeit der Aussetzung, Art der Flaschenposten. 2. Zeit der Strandung sowie Reisedauer. 3. Lage der Strandungsorte und ihre Abhängigkeit vom Aussetzungspunkte. 4. Abhängigkeit der Verteilung der Strandungsorte von den Windverhältnissen. 5. Verbleib der gleichzeitig ausgesetzten Flaschenposten. Der beschriebene Flaschenpostversuch im grösseren Umfange wurde in Gelegenheit der Ausführung der internationalen hydrographischen Beobachtungen im südlichen Kattegat ausgeführt.

**Schumacher Arnold** - Neuere Arbeiten über den Golfstrom im westlichen Atlantischen Ozean [*De ultimis operibus quoad* Golfstrom *in Atlantico occidentali*]. 1 Taf. Ann. d. Hydrogr., LXIII, 2, 53-58. Berlin (1935). **a - 1444**

Ueberblick über die Studien von Brooks, Church und Harwood, die sich auf Oberflächentemperaturbeobachtungen gründen, und über die Arbeiten von Jacobsen (« Dana »), Iselin (« Atlantis ») und Wüst, die den Golfstrom als Problem der Tiefsee behandeln, nebst mancherlei Angaben über den Golfstrom nach Marmer und anderen Quellen (Vf).

**Tait John B.** - Surface Drift-Bottle Results in Relation to Temperature, Salinity and Density Distributions in the Northern North Sea [*De resultatibus obtentis per buticulas fluctuantes pro resultatibus obtentis ex densitatis et salsedinis distributione in Mari nordico sept.*]. 9 figs. Rapp. Pr.-Verb. Cons. Int. Expl. Mer, 3ème partie, Appendices 1933-1934, LXXXIX, 69-79. Copenhague (1934). **a - 1445**

Advantage of drift-bottle examinations for the study of the self–contained regions of stream-currents prevailing in the North Sea. Evidence of agreement between observations derived from data of temperature and salinity, especially as regards the direction of currents, and, with some variations, also the velocity. Great difficulty in giving « normal » or « average » determinations owing to the eceptional variations in hydrographical and hydrodynamical aspect in the Northern North Sea.

**Takegami Tohichiro** - The Boundary Value Problem of the Wind Current in a Lake or a Sea [*De problemate quoad valorem limitem currentiae per ventum excitatae in lacu et in mari*]. Mem. Coll. Sc., A, XVII, 305-318. Kyoto (1934). **a - 1446**

The effect of the coast on the wind current has already been investigated by W. Ekman and several other investigators, but their solutions are appropriate only when the tractive force of the wind vanishes at the coast; otherwise

they do not really satisfy the boundary condition that the component current normal to the vertical sea wall is nil at the coast. In the present paper the writer investigates exactly the boundary value problem when the tractive force of the wind is nil at the coast, but is uniform all over the sea surface. Taking into account the term of the horizontal «Austausch», he succeeds in obtaining a complete solution for the steady state. (From an abstract of the author).

**Thiel J.** - Stromtabellen und-karten für die Süd- und Süd-Westküste Islands [*Currentiarum tabulae et chartae praeter litora meridionalia et sud–occidentalia Islandiae*]. Tab., Kart. Seewart, 5, 210. Hamburg (1934). **a - 1447**

S.: Engl. & French summ. «Int. Hydr. Bull», VI, 110, 1934, Monaco.

**Watson E. E.** - Hydrography of the Bay of Fundy [*De hydrographia in baja* Fundy]. Woods Hole Oceanogr. Instit., Rep. 1933, 37. Woods Hole, Mass. (1934). **a - 1448**

Brief account of the analysis and correlation of the material collected during the investigation of the International Passamaquoddy Fisheries Commission in the Bay of Fundy mainly concerned with the water movements in the Bay.

**Werenskiold W.** - Coastal Currents [*Currentiae litoreae*]. 19 figs., Geof. Publ., X, 13, 3-14. Oslo (1935). **a - 1449**

Introduction. The velocity of coastal currents. Some remarks on the sections across the Norwegian coastal current. The water transport of a coastal current. The stream line function.

**Wüst Georg** - Zur Frage des indischen Tiefenstroms [*Quaestio de peralta currentia indiana*]. 2 Tab., 2 graph. Fig. Naturwiss. XXXIII, 9. 137-139. Berlin (1935). **a - 1450**

Voraussetzung des sogen. Nordindischen Tiefenstromes als selbstständiger Strom und Einwendungen dagegen. Vergleich zwischen dem indischen und atlantischen Tiefenwasser. Neue Bezeichnung: Südindisches Tiefenwasser; seine Abhängigkeit vom atlantischen Tiefenstrom.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Current Tables Pacific Coast North America and Philippine Islands for the Year 1935 [*Currentiarum tabulae praeter litora Oceani Pacifici ad Americae Status Foederatos et ad Insulas Philippinas pertinentia, A. 1935*]. Num. figs., diagrs. & tables. Ser. 568 & Ser. 571, 4 + 119 pp. & 3 + 135 pp. U. S. Govmt. Pr. Off. Washington D. C. (1934). **a - 1451**

Calendar. Preface. Table 1: Predicted currents. Table 2: Current differences and constants. Velocity of current at any time. Duration of slack. Coastal tidal currents. Wind currents. The combination of currents. Current diagram. Astronomical data. Publications by the Coast and Geodetic Survey relating to tides and currents.

**An.** - Currents in the China Sea and East Indian Archipelago. February, March and April [*De currentiis in mari Sinensi et in archipelago Indiarum Orientalium. Mensibus Februario, Martio et Aprili*]. 2 maps, append. Mar. Obs., XII, 117. London (1935). **a - 1452**

**An.** - Current Observations. Observations de courants [*De observatis currentiis*]. (In Engl. & French). Int. Hydr. Bull., VI, 109-110. Monaco, Princ. (1934). **a - 1453**

Summary of a report by T. Gustavson and B. Otterstedt on current observations in the Baltic made by the Swedish Hydrographic Expedition during 1931 on board the «Skagerak», published in «Svenska Hydrografisk-Biologiska Kommissionens Skrifter, Ny Serie: Hydrografi XI».

## Aestus et apparatus mareographici - Maris livellus.

**Berg L. S.** - Niveau de la Mer Caspienne dans les Temps historiques [*De livello maris Caspii, temporibus praeteritis*]. (En russe, rés. franç.). 5 fig., 2 tabl. 4 cartes h. t. Probl. Fis. Gheogr. (Probl. Géogr. Phys. Acad. Sc.), I, 11-64. Leningrad (1934). **a - 1454**

Après avoir résumé les informations concernant le niveau de la Mer Caspienne contenues dans les œuvres: (1) des écrivains de l'antiquité, (2) des écrivains musulmans (X–XV siècles), (3) les données recueillies au XVème siècle, (4) celles du XVIIème siècle, (5) du XVIIème siècle et enfin les études du niveau de la Mer Caspienne accomplies (6) au XIXème siècle jusqu'à l'an 1830 et (7) les résultats des observations exécutées sur une échelle de marées à Bakou depuis 1830 jusqu'à nos jours, l'A. réunit dans un tableau tous les résultats obtenus en ce qui concerne la hauteur du niveau de la Mer Caspienne et, après avoir rappelé que le niveau contenant *Cardium edule* ne surpasse nulle part sur les côtes de cette mer le niveau actuel de plus de 5 mm., conclut que le niveau de la Mer Caspienne ne s'était jamais elevé au cours des temps historiques de plus de 4 mm. au-dessus de son plus bas niveau dans le XIX–XXème siècles, observé en 1925.

**Bergsten Folke** - Höjdbestämningar vid Sveriges kuster medelst hydrografisk nivellering [*De livello ad litora Suetia determinato per livellationes hydrographicas*]. (Engl. rés.). Tabl., Medd. Stat. Met.- Hydrogr. Anst., VI, 4, 1-10. Stockholm (1935). **a - 1455**

Precision levelling accomplished in the years 1886-1905. Comparison between the heights of hydrographical levelling obtained on the basis of the mean water stages of calm months and those of precision levelling, resulting slope of the sea-level as well as land- elevation, errors concerned with this and the necessity of a new precision levelling.

**Chapman S.** - The Lunar Atmospheric Tide at Honolulu, 1905-1924 [*De aestu atmosphaerico lunari in* Honolulu *a 1905 ad 1924*]. 1 fig., tables. Quart. Journ. R. Meteor. Soc., LXI, 259, 189-194. London (1935). **a - 1456**

This paper continues a series dealing with the lunar atmospheric tide, in which determinations have been given for thirteen stations. This tide is determined from twenty years' hourly barometric values at Honolulu. The amplitude of the tide is in fair accordance with that found at other stations in about the same latitude. The harmonic coefficients for the first four components of the solar diurnal variation are also given.

**Corkan R. H.** - An Annual Perturbation in the Range of Tide [*De annua perturbatione in aestuum regimine*]. 2 figs., 9 tables. Proc. R. Soc., A, CXLIV, 537-559. London (1934). **a - 1457**

The paper establishes the existence of an annual perturbation in the range of tide. Direct analysis of hourly heights for an annual perturbation in the principal constituent of semidiurnal tide showed the perturbation to be consistent from year to year, and to exist generally in British waters and throughout the world at large. Analysis of high and low waters further confirmed the results. The

paper concludes with a short discussion on possible causes of an annual perturbation in the range of tide. The method by which the residual tide was obtained is described in appendices, which also contain tables for the direct analysis of hourly heights for an annual perturbation in the range of tide.

**Courtier O.** - Données numériques concernant les marées des côtes de France [*De aestibus in maribus gallicis*]. 71 pp. Imprim. Nationale. Paris (1934). **a - 1458**

**Demel Kazimierz** - Wahania poziomu morza przy Helu w uzaleznieniu of przbiegu wiatrow [*De livelli marini oscillationibus in* Hel (*in litoribus Polonis Maris Baltici*) *pro ventorum directione*]. (En polon., rés. franç.). 2 ill., 5 tab. Kosmos, LIX, 3, 251-262. Lwów (1934). **a - 1459**

Résultats des observations du niveau de la mer sur la côte polonaise marquées en décimètres d'après l'échelle locale du port de Hel, réunis dans des tableaux. Les observations ont été faites au cours de deux années avec référence spéciale à l'action des vents sur les variations du niveau de la Baltique. Discussion des causes qui déterminent l'action des vents.

**Dubov V. P.** - Die Seiches der Ostsee und deren Zusammenhang mit den Leningrader Ueberschwemmungen [*Sessae maris Baltici earumque correlationes cum inundationibus Leningradensibus*]. (In Russ. u. Deutsch.). 6 Abb., 1 Tab. C. R. Acad. Sc. URSS, I, 1, 37-46. Léningrad (1935). **a - 1460**

In der vorliegenden Arbeit betrachtet Vf. die Ostsee mit ihren Meerbusen als ein geschlossenes Becken, welches nur durch schmale und seichte Meerengen mit der Nordsee in Verbindung steht, und studiert ihre eigenen Schwingungen oder Seiches mit besonderer Berücksichtigung der Möglichkeit ihres Zusammenhanges mit den Ueberschwemmungen in Leningrad. Die Ostsee-Seiches wurden vom Vf. nach der bereits zur Untersuchung der Seiches der japanischen Buchten und Seen, bzw. des Baikalsees, erfolgreich angewandten Methode der Modelle, untersucht, und die Ergebnisse mit den aus der Untersuchung der Mareogramme erhaltenen Resultaten, verglichen.

**Griesel R.** - Die Beziehung zwischen Gezeiten, Strömungen und Salzgehalt in der Trave [*Correlationes inter aestus, currentias, salsedinem ad* Trave *pertinentes*]. Mitt. Naturhist. Mus., 2 Reihe, 37. Lübeck (1934). **a - 1461**

**Hachey H. B.** - Tidal Mixing in an Estuary [*Aestuum mixtio in aestuario*]. 3 figs., 2 tables. Journ. Biol. Board Canada, I, 3, 171-178. Toronto (1935). **a - 1462**

Large scale mixing in the region of the tidal reversing falls of the Saint John river water with salt bay of Fundy water gives light mixed water traceable during spring freshets as far as Grand Manan. When moving out this water may cause renewal of the bay of Fundy, at a rate of over 4,000,000 cu. ft./sec. (over 97,000,000 litres/sec.). The mechanism involved and the effect of mixing of the adjacent waters are dealt with in this paper.

**Haedicke J.** - Die irdischen Ursachen der Gezeiten und ihre Bedeutung für die Kontinent-Verschiebungs-Theorie. Ein Beitrag zur Energetik des Aethers [*De aestuum causis terrestribus earumque momento pro terrarum continentium declinatione. Contributio in aetheris energeticam studendam*]. 147 S. I. Hillmann. Leipzig (1934). **a - 1463**

**Henry Jean** - Le golfe du Morbihan au point de vue océanographique [*Sinus* Morbihan *ex oceanographia*]. 3 cartes. Bull. Soc. Océanogr. France, 81, 1409-1413. Paris (1935). **a - 1464**

Dans le présent article l'A. comble une lacune qui s'est vérifiée dans une petite étude récente publiée par lui sous le titre « Le golfe de Morbihan, Méditerranée bretonne », (nº spécial, revue « Morbihan », Vannes), dans laquelle il n'a pu, faute de place, consacrer que quelques lignes aux questions intéressant particulièrement l'océanographie de ce golfe. Il formule ici quelques considérations sur la structure de ce golfe, le régime des marées auquel il est soumis, l'origine et les transformations de son rivage, et enfin la biologie de ses eaux.

**Ivanov I. M.** - Quelques données sur les oscillations du niveau du Bassin Arctique Polaire [*Dati circa livelli oscillationes bacini polaris Arctici*]. (En russe). Zemlevedenie (Sc. de la Terre), XXXV, 4, 364-368. Leningrad (1933). **a - 1465**

**Legrand Jean** - Sur l'utilisation des observations du niveau moyen des mers en vue de la recherche des cycles climatériques [*De utilitate percipienda ex observationibus livelli medii marium pro investigationibus in cyclos climatericos*]. 1 graph. C. R. Acad. Sc., CC, 7, 573-575. Paris (1935). **a - 1466**

Résultats d'une comparaison faite par l'A. entre ses tracés comparatifs des précipitations basés sur les références des postes pluviométriques de la zone tempérée echelonnés entre les longitudes de Dakar et de Marseille et les courbes, élaborées par MM. Ch. Lallemand et Prévot, des oscillations du niveau moyen de la mer sur le littoral français depuis 1851. Il semble résulter de cette comparaison une large généralisation de la notion d'une cause commune aux précipitations d'origine Atlantique, la mer se comportant comme un vaste pluviomètre sur le littoral français.

**Lek Lodew.** - Die Gezeiten- Erscheinungen im Zuiderseegebiet während der Zeit des Baues des Abschlussdammes [*De maris accessibus in regione* Zuidersee *dum aedificabatur moles foranea*]. Graph. Inst. Paul Funk. Akademische Abhandlung. Berlin (1934). **a - 1467**

**Lueders K.** - Umrechnung von Gezeitenstromgeschwindigkeiten auf Mittelwerte [*Velocitatis aestuum currentiarum reductio ad valores medios*]. 1 Abb., 29 Tab., 10 Taf., Veröff. Marineobserv. Wilhelmshaven, N. Folge, 1, 4-59. Berlin (1934). **a - 1468**

I. Einleitung. II Die den Untersuchungen zugrunde gelegten Messungen. III. Die Umrechnung: *a*) Vorbemerkungen; *b*) Gang der Umrechnung, erläutert an der Strombeobachtung vom 31. August 1931; *c*) Ergebnis der Umrechnung der Strombeobachtung vom 31. August 1931. IV. Ergebnis der Untersuchungen. V. Zusammenfassung. VI. Nachtrag: Umrechnung der bei einer Tide mit sehr kleinem Tidenhub ausgeführten Strombeobachtung vom 12. Oktober 1933. Literatur.

**Marguet F.** - Marées stationnaires du large et marées progressives littorales [*De fixis aestibus longe a litoribus deque aestibus progredientibus apud litora*]. 3 croquis. Ann. d. Géogr., 15 janv., 37. Paris (1935). **a - 1469**

L'A. explique d'une manière élémentaire les mouvements de marée de la masse liquide répandue sur la surface du globe. Il fait une synthèse expliquant la conception du phénomène essentiel qui donne lieu aux marées constatées sur les rivages, d'après les hypothèses de l'hydrographe américain Harris, se référant aux bassins océaniques à résonance et concernant les marées stationnaires au large et leur transmission aux eaux côtières qui les bordent, donnant lieu à des marées progressives littorales. L'A. illustre le cas particulier de certaines mers fermées et de certains estuaires de rivières, où les phénomènes se compliquent d'« ondes supérieures ou composées ».

**Marmer H. A.** - On the Determination of Mean High Water [*De media determinanda quoad maris accessum*]. 5 figs. Amer. Journ. Sc., XXVI, 153, 332-343. New Haven, Conn. (1933). **a - 1470**

After having emphasized the importance in the study of coastal stability of the position of the so-called « high water line », as criterion, the A. shows that the basic problem in such a study is how to determine mean values of the various high water data so that they may be used as geophysical data, and gives in the present paper a consideration of the datum of main high water, illustrating the fluctuations of high water, the definition of mean high water, the determination of mean high water, and the changes in the datum of mean high water. The data taken into consideration concern high waters at Boston, Fort Hamilton and Seattle.

**Navarro Francisco de P.** - Sobre la existencia de ondas de marea interna en el Mediterraneo y generalizacion de la importancia de este fenomeno en los estudios oceanogràficos [*De undis relate ad aestum internum maris Mediterranei. Phaenomeni momentum extenditur ad studia oceanographica*]. (Rés. franc.). 11 fig., quadr. Trab. Inst. Esp. Oceanogr., 12, 7-23. Madrid (1934).

( — ) Voir: Rapp. Pr.-Verb. Cons. Expl. Mer. Rapp. Atlantique XCIII, 29-30. Copenhague (1935).

( — ) Voir: Bull. Inst. Océanogr., 656, 1-19. Monaco, Princ. (1934). **a - 1471**

En este trabajo se trata de la existencia de las ondas de marea profunda (« Interne Gezeitenwelle », « Internal waves ») en el Mediterraneo, a partir del estudio del relativamente complicado régimen térmico marino de Palma de Mallorca. Sucesivamente se trata de la presentación del problema, de su asclaración, de la generalización del fenómeno de las mareas submarinas y de las consecuencias derivadas.

**Nisina Nobuhiko** - Observation of Seiches in the Bays of Maroiso, Aburatubo and Koaziro [*Sessae. Observationes peractae in* Maroiso, Aburatubo *et* Koaziro]. (In Jap.). Disin, II, 755-768. Tokyo (1930). **a - 1472**

Discussion of the results of an automatic record of the changes of sea-level, obtained by means of a device provided with a buoy floating on mercury in one branch of a U-tube of which the other branch is filled with sea water, which is, in turn, connected with a rubber tube to the sea in the bays Moroiso, Aburatubo, and Koaziro, situated successively adjacent to each other near the end of the Miura Peninsula, Sagami Province, Japan.

**Post (von) Lennart** - A Gothiglacial Transgression of the Sea in South Sweden [*De maris transgressione gotho-glaciali in Suetia merid.*]. 16 figs., Geogr. Ann., XV, 2-3, 225-254. Stockholm (1933). **a - 1473**

Theoretics about the late-quaternary changes of level. Empirical evidences of an eustatic component in the Swedish changes of level. Late-quaternary oscillations of the Ocean hitherto traced in South Sweden. The profile at Lejeby. Conclusion: The A. points out the difficulty of the problem and the necessity of systematical comparative investigations between the British and Fenno-Scandian geological development.

**Proudman J. & Doodson A. T.** - Liverpool Observatory and Tidal Institute. Annual Report 1934 [*Observatorium et Institutum pro aestibus in Liverpool. Relatio annua 1934*]. 3 figs., 2-15. Gledsdale & Jennings. Liverpool (1935). **a - 1474**

Governing Committee, 1934. Scientific Staff. Report for 1934; Publications. Research. Machines and Instruments-General. Tidal analyses and Predictions. Meteorological information supplied. Meteorological Summary for 1934. Library.

**Riel (van) P. M.** - Plotselinge storingen in de vertikale getijbeweging [*Perturbationes repentinae in aestuum motibus verticalibus*]. De Ingenieur, A., 115. Utrecht (1934).

(—) Voir aussi: De Zee, Juill. 360–370. den Helder (1934). **a - 1475**

**Roon (van) J.** - Hoogwater bij enkeldagsche getijbeweging [*Maris accessus eiusque motus diurnus*]. De Zee, 599-606. den Helder (1934). **a - 1476**

**Schokalsky J. M.** - Niveau de l'océan mondial [*Oceanorum livellus*]. (En russe, rés. franç.). Mém. Inst. Hydrol., X, 345-347. Léningrad (1933). **a - 1477**

**Schultze Edgar** - Die nichtperiodischen Einflüsse auf die Gezeiten der Elbe bei Hamburg. Eine Anwendung der Korrelationsrechnung auf die Bestimmung der Hoch- und Niedrigwasserstände eines Tideflusses [*Aperiodicae influentiae in aestus fluminis Elbae apud Hamburgum. Correlationum calculus applicatur ad livellum maris accessus et recessus circa flumen*]. 18 Anl., 15 Tab., Aus d. Arch. Dtsch. Seewarte, LIII, 5, 5-68. Hamburg (1935). **a - 1478**

Die Tätigkeit des Vf. bei dem preussischen Wasserbauamt Harburg-Wilhelmsburg und bei der hamburgschen Behörde für Strom- und Hafenbau gaben ihm die Veranlassung sich mit dem an noch ungelösten Fragen reichen Gebiete der Gezeiten und der Einflüsse auf die Gezeiten im Tidegebiet der Elbe zu befassen. Hierbei stellte sich die Beeinflussung der Hamburger Wasserstände durch die Wirkung des Windes als eine Erscheinung von besonderer Wichtigkeit für den Hafenbau und die Schiffahrt eines Tideflusses heraus.

**Schureman Paul** - Tides and Currents in Hudson River [*De aestibus et currentiis fluminis* Hudson]. Maps, diagrs. U. S. Coast & Geod. Surv. Spec. Publ., 180, v + 106 pp. Washington D. C. (1934). **a - 1479**

Collection of observational data on the tides and currents in the tidal portion of the Hudson River, which extends for a distance of 132 nautical miles from the Battery, New York City, to the dam at Troy. A series of tables is given containing, in addition to the usual tidal data, the heights of extreme high and low water for each month for a number of years at various places along the river, as well as a series of diagrams summarizing the results of the tidal and current data. The improvements undertaken in order to facilitate navigation; and the changes in the tides and currents provoked by those improvements are also dealt with.

**Springhubbe H.** - Gezeiten- Erscheinungen in St. Lorenz-Golf [*De aestibus in Sinu S.cti Laurentii*]. Aus d. Arch. dtsch. Seew., LIII, 2. Hamburg (1934). **a - 1480**

**Steggewentz J. H.** - De invloed van de Getijbeweging van Zeeën en Getijrivieren op de Stijhoogte van Grondwater [*De influentia in*

*aquae altitudinem quoad motus marium et fluminum aestuosorum*]. 18 Abb. VIII + 138 pp. W. D. Meinema. Delft (1935). **a - 1481**

Der Vf. gibt in dieser Dissertation eine theoretische Ableitung der Tidebewegung eines Brunnens in der Nähe des Meeres oder eines anderen Gezeitenwassers. Eine Formel wird abgeleitet, wodurch möglich ist, die Dämpfung und Nacheilung am Ufer sowie den Tideeinfluss für jeden Punkt des Gebietes mittels zweier Beobachtungsbrunnen zu bestimmen, vorausgesetzt, dass der Durchlässigkeitskoeffizient in waagerechter Richtung und die geologische Beschaffenheit des Untergrunds bekannt sind.

**Stenij S. E.** - Vedenkorkeusarvoja 1933, Vattenståndsuppgifter 1933 (Wasserstandsangaben 1933) [*Dati circa aquae livellum, A. 1933. (Observationes mareographicae)*]. (In Finn., Deutsch. Ref.). 1 Karte, Tab. Merent. Julk. Havsforskn. inst. Skr., 99, 3-52. Helsinki (1935). **a - 1482**

Ergebnisse der im Jahre 1933 an den Küsten Finnlands ausgeführten Wasserstandsbeobachtungen auf 17 Mareographenstationen und 20 Pegelstationen.

**Suda K.** - On the Tidal Currents in the Sea off the West Coast of Kamtchatka [*De aestuum currentiis longe a litoribus occidentalibus paeninsulae* Kamtchatka]. (In Jap. Engl. Summ.). Bull. School Fish., IV, 8. Sapporo, Japan (1934). **a - 1483**

**Thorade H.** - Bemerkungen über die Halbtagsgezeiten des Atlantischen Ozeans [*Observationes quoad aestus semi-diurnos Oceani Atlantici*]. 1 Fig., 1 Tab., 3 Taf. a. T. Ann. d. Hydrogr., LXIII, 3, 93-99. Berlin (1935). **a - 1484**

1. Beziehungen zwischen dem Steigen und Fallen und dem Strome: Wirkungen der folgenden Kräfte: 1. der fluterzeugenden Gestirnskräfte, 2. des Wasserspiegelgefälles, 3. der ablenkenden Kraft der Erdumdrehung und 4. der Reibung. 5. Die Gezeitenkarte von R. Sterneck und die Strombeobachtungen im Atlantischen Ozean.

**Coast & Geodetic Survey** - Tidal Current Charts. San Francisco Bay [*Tabulae currentiarum aestuum. Baja S.cti Francisci*]. 14 charts, 2 tables. U. S. Dpt. Comm., Ser. 484. U. S. Govmt. Print. Off. Washington D. C. (1934). **a - 1485**

These current charts show the direction and velocity of the tidal current for each hour of the current at San Francisco Bay entrance (Golden Gate). They present a comprehensive view of the tidal current movement for the bay as a whole and also supply a means of readily determining the direction and velocity of the current at various localities throughout the bay. In an introductory Note the use of charts is indicated and illustrated on hand of a practical example.

**Ghidrografitcheskoj Oupravlenije** - Tables des heures et de niveaux des hautes et des basses marées pour 1934 (Mai-Décembre) [*Horarum tabulae et livellorum aestuum, A. 1934 a mense Majo ad mensem Decembrem*]. (En russe). 102 pp., Ed. Ghidrogr. Oupr. Leningrad (1934). **a - 1486**

Les heures et les niveaux des hautes et basses marées depuis mai jusqu'à décembre indiqués pour 12 points, parmi lesquels nous citons l'embouchure du fleuve Mezenj, le delta de la rivière Kambaljnitza, celui du fleuve Pétchora (Ile Zelenyj), Advent Bay (Spitsbergen), et l'embouchure du fleuve Indiga.

**Statens Meteorologisk- Hydrografiska Anstalt** - Vattenstånden vid Rikets kuster [*De aquae livellis præter litora Suetiae*]. Tabl., Årsbok 1932, XIV, 3, 1-25. Stockholm (1934). **a - 1487**

Tableaux des résultats des enregistrements des maréographes suédois pendant 1931. L'index du système de précision est donné au commencement des tableaux pour chaque station.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Tide Tables Atlantic Ocean, 1935 [*Aestuum tabulae. Oceanus Atlanticus, A. 1935*]. 7 tables. U. S. Govmt. Print Off., Ser. 565, 4-281. Washington D. C. (1934). **a - 1488**

1: Predicted tides. 2: Tidal differences and constants. 3: Height of tide at any time. 4: Local civil time on sunrise and sunset. 5: Reduction of local civil time to standard time. 6: Moonrise and moonset. 7: Astronomical data. Each table is preceeded by an explanation.

**U. S. Department of Commerce. Coast & Geodetic Survey** - Tide Tables Pacific Ocean and Indian Ocean [*Aestuum tabulae. Oceanus Pacificus Oceanusque Indianus*]. 7 tables. U. S. Govmt. Print. Off., Ser. nº 567, 4-263. Washington, D. C. (1934). **a - 1489**

The present volume contains full daily prediction for 47 reference stations and differences and constants for about 1,700 stations on the Pacific and Indian Oceans and tributary waters. It contains also a table for obtaining the height of the tide at any time, a table of local civil time of sunrise and sunset for every fifth day of the year for different latitudes, a table for the reduction of local civil time to standard time, a table of moonrise and moonset for 6 places, and a table of the Greenwich civil time of the moon's phases, apogee, perigee, greatest north and south and zero declination, and the time of the solar equinoxes and solstices.

**Lg.** - Veränderte Gezeitenbewegung nach Abschluss der Zuidersee [*De aestibus eorumque motuum variatione post* Zuiderzee *clausum*]. Naturwiss., XXII, 33, 563-564. Berlin (1934). **a - 1490**

Kurzer Bericht über die durch den Abschluss der Zuiderzee eingetretenen Höhen- und Strömungs-Veränderungen und die dagegen gebauten Schutzeinrichtungen. (S. weiter Ztschr. V. D. I., LXXVII, 27).

**An.** - Mittlere Wasserstände an den 9 Pegeln des Preussischen Geodätischen Instituts im Jahre 1934 [*De livellis mediis aquae ex novem hydrometris ad Institutum Geodeticum Borussicum pertinentibus, A. 1934*]. 2 Tab., Ann. d. Hydrogr., LXIII, 6, 249-250. Berlin (1935). **a - 1491**

Mittlerer Wasserstand, höchster und niedrigster Wasserstand an den Pegeln in Bremerhaven, Travemünde, Marienleuchte, Wismar, Warnemünde, Arkona, Swinemünde, Stolpmünde und Pillau.

**An.** - Tidal Stations. Stations marégraphiques [*Stationes mareographicae*]. (In Engl. & French). Int. Hydr. Bull., VI, 19. Monaco (1934). **a - 1492**

Extract from the « Bull. Arct. Inst. », nº 5, 1934. Leningrad. List of the stations on which tide-gauge observations have been taken by members of the Arctic Institute of the U. S. S. R. since the 15th March, 1934.

**An.** - The Variation of Distance Between Europe and America [*De distantiae variatione inter Europam et Americam*]. Science- Suppl., LXXXI, 2097, 8. New York. (1935). **a - 1493**

Brief account of the discovery by Professor Harlan T. Stetson and Dr. A. L. Loomis of tides in the solid earth which alter the distance between the North American and European continents by as much as 63 feet. These tides in the earth are believed to be caused by the moon through its gravitational pull much in the same manner as it causes ocean tides.

**An.** - Vocabulary Concerning Tides [*Vocabularium de aestibus*]. Spec. Publ. Int. Hydr. Bur., 28ª. Monaco, Princ. (1934). **a - 1494**

## Undarum motus.

**Findeisen W.** - Ueber Beobachtungen auffälliger Wellenbildung auf dünner Wasserschicht auf dem Neuwerker Watt [*De undis notandis quae in subtili quodam strato aquoso efformantur in alto fundo regionis* Neuwerker]. 1 Taf. Ann. d. Hydrogr., LXIII, 5, 186-189. Berlin (1935). **a - 1495**

Einige Anregungen zur Erklärung einer merkwürdigen Erscheinung, welche auf dem Neuwerker Watt gelegentlich zur Ebbezeit beobachtet werden kann, und zwar, dass beim starkem Wind (etwa 12 m/sec) dort vielhundertmeter weite Oberflächen von locker gelagertem Sand entstehen, über welche aus benachbarten, übervollen Wasserläufen (Prielen) stammendes Wasser in dünner, jedoch sehr ausgedehnter Schicht vom Winde hinübergetrieben wird. Die Erklärung dieser Erscheinung ist nach hydrodynamischen und nach aerodynamischen Gesichtspunkten gegeben worden.

**Kossinna Erwin** - Ueber Grösse und Bewegung von Meereswellen in der Flachsee [*De undarum motibus et dimensionibus in mari haud alto*]. 1 Tab., 1 Taf. a. T. Ann. d. Hydrogr., LXIII, 4, 133-139. Berlin (1935). **a - 1496**

Nachdem Vf. beobachtet hat, dass man sehr wenige zuverlässige Angaben über die in Flachseegebieten vorkommenden Wellendimensionen in der ozeanographischen Literatur findet, berichtet er in vorliegender Arbeit über die von ihm ausgeführten Wellenbeobachtungen von der Westmole von Warnemünde aus und versucht im zweiten Teile seines Aufsatzes die folgenden Fragen zu beantworten: Welche sind die maximalen Dimensionen der Meereswellen in der Nord- und Ostsee ? - Welche Bewegungen führen die Wasserteilchen in den verschiedenen Tiefen aus und wie ändern sich die Wellenformen bei abnehmender Tiefe ?

**Krux W.** - Zur Frage der durch einen Druckpunkt auf flachem Wasser erzeugten zweidimensionalen Wellen [*De undis bidimensionalibus a quadam pressione per aquam placidam excitatis*]. Schiffbau, 17. Berlin (1934). **a - 1497**

**Pabst W.** - Ueber ein Gerät zur Messung und Aufzeichnung des Seeganges [*De apparatu qui motus marium metitur et inscribit*]. Ztschr. f. Flugtechn. & Motorluftschiffahrt, XXIV, 21/22, 616-619. Berlin (1933). **a - 1498**

**Thorade H.** - Interne Wellen neuer Art [*De undis internis novi generis*]. 2 Fig. Ann. d. Hydrogr., LXIII, 4, 174-175. Berlin (1935). **a - 1499**

Besprechung einer Untersuchung von J. E. Fjeldstad (« Interne Wellen », Geofys. Publ., X, 6. Norsk. Vidensk. Akad. Oslo, 1933), in welcher sich Fjeldstad die Aufgabe stellt, das Verhalten des Wassers bei beliebiger Aenderung der Dichte in der Tiefe zu untersuchen, und zu dem Ergebnisse gelangt, dass z. B. auch bei durchaus stetiger Aenderung der Dichte (also ohne sprunghafte Uebergänge) recht kräftige interne Wellen auftreten können. Thorade behauptet, dass die Anwendung der Fjelstadschen Theorie einen Ausblick auf eine Reihe neuer Erscheinungen eröffnet.

**Whitemarsh R. P.** - Great Sea Waves [*De undis in altum*] U. S. Nav. Inst. Proc. XL, 378, 1097-1103. Annapolis (1934). **a - 1500**

On the study of sea conditions. Observation of a great sea wave by personnel of the U. S. S. Ramapo. Other obervations and results.

**An.** - Recording Ocean Waves [*Inscriptio in chartis undarum oceanicarum*]. Science, LXXXI, 2089, Suppl. 9-10. New York (1935). **a - 1501**

Brief description of a recording current meter, which will keep a complete record of intensity and direction of ocean currents, and by which there might be a possibility to forecast destructive waves, devised by Dr. George F. McEven from the Scripps Institution of Oceanography. The device operates on the principle of a pendulum and is designed to compile data on current movements for use in studying causes of the huge waves which have rocked the coast of Southern California.

## Hydrodynamica theorica.

**Arredi Filippo** - Sul trasporto solido nelle correnti liquide [*Transvectio rerum solidarum in currentiis liquidis*]. Ann. Lavori Pubblici. LXXIII, 2, 148-150. Roma (1935). **a - 1502**

Sulle esperienze fatte dai Proff. Mayer-Peter, Favre & Einstein presso il Laboratorio Idraulico dell'E. T. H. di Zurigo in due canali appositamente costruiti. V. Schweiz. Bauzeitung CIII, 13 Zürich (1934).

**Bonvicini Dante** - Sul regime delle foci lagunari [*De oribus lacunarum eorumque regimine*]. 1 fig., Ingegnere, VIII, 17, 864-866. Roma (1934). **a - 1503**

Ripreso un recente studio del prof. U. Todaro sul moto provocato dalla marea nel canale emissario di una laguna, si perviene in un'ipotesi particolarmente semplice a stabilire una semplicissima relazione approssimata fra le dimensioni della laguna e del canale, e le ampiezze dell'oscillazione di livello in laguna ed in mare.

**Camichel Charles & Teissié-Solier Max** - Influence d'une perturbation sur le sillage en régime de Poiseuille d'un corps immergé [*De perturbatione in rima quae sit in regimine quod a* Poiseuille *nomen capit, in corpore quodam immerso*]. 2 fig. C. R. Acad. Sc., CC, 9, 704-707. Paris (1935). **a - 1504**

L'objet de la présente Note qui fait suite de l'étude, faite par les AA. des tourbillons alternés de Bénard-Karman (C. R., CLXXXV, p. 1556, 1927), est d'indiquer un fait qui, à la connaissance des A A., est nouveau, - l'influence d'une perturbation sur le sillage en régime de Poiseuille d'un corps immergé et la démonstration de l'existence d'un phénomène périodique qui est la continuation en deçà du critérium du phénomène des tourbillons alternés, résultat qui confirme et étend ceux obtenus précédemment.

**Davison B.** - On the Independent from the Viscosity Forms of the Two-dimensional Unsteady Motion of a Viscous incompressible Fuid [*Formae a viscositate liberae motus irregularis bidimensionalis cuiusdam fluidi viscosi incompressibilis*]. (In Russ., Engl. Summ.). Zap. Idrol. Inst. (Mém. Inst. Hydr.), XIII, 79-84. Leningrad (1934). **a - 1505**

(—) In the same volume XIII, 159–164 there is another paper on the same argument.

A. considers the two-dimensional unsteady motion of a viscous incompressible fluid in the case when the outer forces possess a potential, and shows that there are only four cases when the velocities are independent from the value of the coefficient of viscosity. All the unchangeable regions where a motion of the above-mentioned character may take place are also determined.

**Dubreil-Jacotin M.-Louise** - Sur les théorèmes d'existence relatifs aux ondes permanentes périodiques à deux dimensions dans les liquides

hétérogènes [*De exsistentiae theorematis relate ad undas fixas periodicas bidimensionales in liquidis heterogeneis*]. C. R. Acad. Sc., CC, 3, 210-212. Paris (1935). **a - 1506**

Compte rendu d'une étude rigoureuse des ondes permanentes périodiques dans les liquides hétérogènes incompressibles, dans lesquels la diffusion est négligée. L'A. démontre que, la longueur d'onde étant donnée, il y a une infinité de mouvements d'onde possibles tous à l'exception d'un seul ayant des plans nodaux.

**Ferrari Carlo** - Sulla teoria della turbolenza [*De turbulentia*]. Atti R. Acc. Naz. Linc. - Rend. Cl. Sc. Fis. Mat. e Nat., serie 6, XX, 3-4, 100-104. Roma (1934). **a - 1507**

L'A. ricorda la teoria della turbolenza sviluppata da G. D. Mattioli, ed indica come, variando le ipotesi poste dal Mattioli ma applicando lo stesso metodo da questi indicato, si possono ritrovare i risultati delle teorie di Prandtl e di Karmàn.

**Gebelein Hans** - Turbulenz: Physikalische Statistik und Hydrodynamik [*De turbulentia. Statistica physica et hydrodynamica*]. viii-177, S. J. Springer. Berlin (1935). **a - 1508**

**Gleijeses Mario** - Una proprietà della superficie dei centri delle carene isobate [*Agitur de peculiaritate quae pertinet ad superficiem centrorum carinarum isobatarum*]. Ann. R. Ist. Sup. Nav., III, 2, 109-110. Napoli (1934). **a - 1509**

L'A. conclude: il piano tangente in un punto della superficie dei centri delle carene isobate, individuate in un galleggiante dai piani di una stella, passa per l'antipolare del centro della stella rispetto all'ellisse centrale della figura di galleggiamento corrispondente al punto di contatto.

**Hachey H. B.** - A Derivation of Bjerknes' Fundamental Hydrodynamical Concept [*Agitur de quadam derivatione a fundamentali conceptione hydrodynamica per* Bjerknes]. Int. Rev. d. ges. Hydrobiol. u. Hydrogr., XXXI, 331-336. Leipzig (1934). **a - 1510**

**Hégly M.** - Sur la propagation d'une onde solitaire dans un canal réduit, à section trapézoidale [*De propagatione undae cuiusdam solitariae per canalem reductum, sectione praeditum trapezoidali*]. C. R. Acad. Sc., CIC, 18, 826-828. Paris (1934). **a - 1511**

L'A., ayant construit au laboratoire d'hydraulique fluviale de Metz un canal en terre à section trapézoidale, a répété l'expérience célèbre de J. S. Russel sur l'onde solitaire. Constatation des résultats.

**Hidaka K.** - Oscillations of Water in a Fan-Shaped Basin [*De aquae oscillationibus in sinu instar flabelli*]. Geophys. Magaz. 8, 195-197. Tokyo. (1934). **a - 1512**

The oscillations of water in a basin bounded by the arcs of two concentric circles and two diameters, and whose plan resembles a fan, are considered. Where the depth is a function of the radius the tidal motion is solved completely and some special cases are taken where the expressions for the oscillations can be simplified.

**Hidaka K.** - Oscillations of Water in Spindle-Shaped and Elliptic Basins and Associated Problems [*De aquae oscillationibus in bacinis fusiformibus atque ellipticis. Considerantur etiam problemata ad rem pertinentia*]. Geophys. Magaz., 8, 199-202. Tokyo (1934). **a - 1513**

A list of corrections to the original paper.

**Hidaka K.** - The Oscillations of Water in Canals of Asymmetric Plan (Problems of Water Oscillations in Various Types of Basins and Canals - Part VIII) [*De aquae oscillationibus in canalibus plano praeditis asymmetrico (De aquae oscillationibus in variis bacinis et canalibus. Pars VIII*$^{a}$)]. (Jap. Summ.). Mem. Imp. Mar. Obs., V, 4, 267-326. Kobe, Japan (1935). **a - 1514**

In this paper author treats the free oscillation of water in canals of uniform depth, in shelving canals, and in canals with sloping bed. From the results of the discussion on the oscillations of water in canals of asymmetric plan, the following conclusion is drawn: « Most of those basins, found in nature, are asymmetric rather than symmetric. The distribution of depth is, on the contrary, nearly symmetric in general. But sometimes they have nearly flat bed or sloping bed. For these reasons the canals treated in this paper will find more chances to be applied to the explanation of the phenomena of seiches, tides, and secondary ondulations of tides, observed in the lakes, seas, bays, and oceans ». In an appendix the author gives approximate solutions for the oscillations of water in spindle-shaped, elliptic, and allied canals.

**Hidaka K.** - Seiches in a Channel (Problems of Water Oscillations in Various Types of Basins and Canal – Part IX) [*Aestus secundarii in canali. (De aquae oscillationibus in variis bacinis et canalibus. Pars I*$^{a}$)]. (Jap. Summ.). 10 figs., 7 tables. Mem. Imp. Mar. Obs., V, 4, 327-358. Kobe. Japan (1935). **a - 1515**

1. Introduction and summary of the results. 2. Differential equation of tidal oscillations and conditions in terms of elliptic coordinates in two dimensions. 3. Solutions in terms of Mathieu and associated Mathieu functions. 4. On numerical computation. 5. Numerical results. 6. Channel bounded by a straight line and a branch of hyperbola. 7. Rotating channel. 8. The observation in a natural channel.

**Kaufmann W.** - Angewandte Hydromechanik. Zweiter Band [*De hydromechanica applicata. Vol. II*$^{um}$]. 210 Textabb. vii-293 S., J. Springer. Berlin (1934). **a - 1516**

In diesem zweiten Bande finden wir eine nähere Behandlung technisch wichtiger Strömungsprobleme: Ausfluss und Ueberfall, Strömung in geschlossenen Leitungen, Strömung in offenenen Gerinnen, Wellenbewegung, Grundwasserbewegung, hydrodynamische Theorie der Schmiermittelreibung, Elemente der Tragflügel-, Propeller- und Kreiselradströmung, Schiffswiderstand, die Belastung von Bauwerken durch Windkräfte (diese Kapitel bearb. von O. Flachsbart).

**Koenuma Ewanichi** - Effect of a Steady Wind on the Surface Level of a Canal [*De vento quodam constanti eiusque effectu in livellum cuiusdam canalis*]. (In Engl., Jap. Summ.). 1 fig. Mem. Imp. Mar. Obs. V, 4, 359-371. Kobe, Japan (1935). **a - 1517**

Translated from Japanese Umi-to-Sora, XIII, 4, correcting the mistakes. In this paper author discusses the effect of a steady wind on the surface level of an infinitely long canal whose coasts are parallel to each other, considering the inclination of the surface and the tangential stress due to the wind to be the function of the distance from the coast. He also extends his researches to the case of a sea with a straight coast, putting one of the coasts of the canal to be at infinity.

**Kravtchenko Julien** - Théorèmes de validité dans le problème des sillages [*Validitatis theoremata quoad rimarum problemata*]. C. R. Acad., Sc., CC, 3, 208-210. Paris (1935). **a - 1518**

Les théorèmes que l'A. fait connaître constituent des extensions de quelques résultats de M. H. Villat (cas de l'obstacle symétrique) et de M. J. Leray (cas du fluide indéfini); ils valent dans le cas d'un courant fluide enfermé dans un canal (ou limité par une paroi fixe) qui heurte un obstacle dont l'angle de la tangente positive avec la direction du courant est supposé compris entre zéro et $\pi$. Pour simplifier ses énoncés l'A. se limite d'abord au cas des parois fixes planes, mais chaque théorème peut être étendu à certaines classes de parois courbes.

**Kubo T.** - (Rev. by). Dynamic of Tides on the North Siberian Shelf (Results from the « Maud » Expedition. By H. U. Sverdrup. Geofys. Publ. IV, 1927) [*Aestuum dynamica in platea sibirica sept.* (*Resultatus ex navigatione navis* « Maud »)]. (In Jap.). Journ. Oceanogr., VII, 1, 403-418. Kobe (1934). **a - 1519**

**Liceni Franco** - Sul fenomeno della turbolenza [*De turbulentia*]. (La nuova teoria di G. D. Mattioli alla luce delle misure di Nikuradse). 2 fig. En. Elettr., 7, 530-535. Milano (1934). **a - 1520**

Lo scopo che si propone l'A. è il confronto tra le previsioni teoriche di Mattioli e le misure di Nikuradse. Al n. 1 dà un'esposizione riassuntiva dei fondamenti concettuali della teoria di Mattioli ed al n. 2 il riassunto dell'applicazione fattane dallo stesso autore alla teoria del flusso nei tubi; segue al n. 3 la dimostrazione dell'esatta corrispondenza di tale teoria con le misure di Nikuradse. Al n. 4 è esposta l'influenza della parete attraverso alla viscosità dello strato limite, ed infine nel n. 5 è presentata una formula che esprime la legge di resistenza nei tubi, formula che offre un grado di approssimazione notevolmente maggiore di quelle empiriche prima adottate. Conclude che la teoria dinamica della turbolenza di Mattioli, è da ritenersi definitivamente confermata dall'esperienza sia nei riguardi della determinazione dei profili della velocità, che in quelli della legge di resistenza.

**Nomitsu Takaharu** - Coast Effect upon the Ocean Current and the Surface Slope. II. Changing State [*De litoribus eorumque effectibus in currentiam oceanicam. Agitur etiam de superficie declivi. II*$^{um}$. *Status variabilis*]. Mem. Coll. Sc., A., XVII, 249-280. Kyoto (1934). **a - 1521**

In this second report on the coast effect, the writer has investigated the development of the surface slope ($\gamma$) and of the current ($w$) as it is influenced by land. At the coast itself as the primary cause begins to act, the slope instantly springs up to a finite value $\gamma$ (°) and then approaches gradually to the steady value $\gamma$ given in Author's first report on the problem. The current influenced by the coast may be considered to consist of the primary current $w_F$ and the secondary slope current $w_\gamma$. The writer emphasizes that both slope and the secondary current have the form which is the same for every kind of primary cause, but different only in their final values.

**Srettenskij L.** - On the Motion of a Glider on Deep Water [*De motibus cuiusdam apparatus qui per aquam profundam dilabitur*]. (In Engl., Russ., Summ.). 2 figs. Bull. Acad. Sc. URSS. Cl. Sc. Mathém. & Natur., 6, 816-835. Léningrad (1933). **a - 1522**

New method for the study of the motion of a glider on deep water, different from those elaborated by S. A. Tchaplighine, based on the theory of analytical functions. The A. intends here to give an approximate solution of the problem, which may be true for the case of a parallel-plane stream.

**Stakhovitch C. I.** - Mouvement d'un liquide visqueux incompressible dans les tuyaux et canaux [*De motibus liquidi viscosi incompressibilis per tubos et canales*]. (En russe, rés. franç.). Zap. Gos. Idrol. Inst. (Mém. Inst. Hydrol.), XIII, 3-26. Leningrad (1934). **a - 1523**

Dans le I Chap. l'A. rappelle les équations et les lois générales du mouvement d'un liquide visqueux incompressible. Le II Chap. contient l'exposé de la théorie du mouvement permanent rectiligne dans les tuyaux et canaux ayant une section constante. Les équations du mouvement dans ce cas se réduisent aux équations de Poisson. L'A. s'occupe ensuite de cas spéciaux du mouvement rectiligne non permanent en appliquant la méthode d'Euler-Fourier.

**Varsar S.** - Sur le problème de la détermination des périodes latentes (Selon la méthode de A. Schuster) [*De periodis latentibus eorumque determinatione methodo ab* A. Schuster *reperta*]. (En russe, rés. franc.). 9 graph. nombr. tabl. d. et h. t. Zap. Idrol. Inst. (Mém. Inst. Hydrol.), XIII, 39-77. Leningrad (1934). **a - 1524**

L'A. prend en considération la méthode proposée par A. Schuster pour la recherche et la détermination des périodes comprises dans des rangées des données observées. La II$^{\text{ème}}$ partie du présent ouvrage est consacrée à l'examen des exemples d'application de la méthode considérée à des séries de nombres de nature différente. Dans un appendice l'A. publie quelques tables et schémas servant à la détermination des amplitudes et des phases à l'aide de l'analyse harmonique.

# GEOPHYSICA

## Meteorologia.

**Aujeszky L.** - Verwertung der Niederschlagshöhen zur Diagnose und Vorhersage der frontalen Vorgänge [*De praecipitationum livellis eorumque aestimatione quoad phaenomenorum frontalium diagnosim et provisionem*]. Ann. d. Hydrogr., LXIII, 4, 164-167. Berlin (1935). **a - 1525**

Die Verwendungs-Möglichkeiten der in der Bergener Einheits-Arbeitskarte eingetragenen Niederslags-Meldungen werden erörtert und zwar: 1. im Hinblick auf den laufenden Auskunftdienst der Wetterdienststellen, 2. behufs Kritik einlaufenden Meldungsmaterials, 3. zur Bestimmung der des mutmasslichen Front-Passagezeiten, 4. zur Feinanalyse der Frontbeschleunigungen bzw. der stationär werdenden Fronten.

**Barlow E. W.** - Thunderstorms at Sea [*Tempestates in mari*]. Mar. Obs., XII, 118, 49-52. London (1935). **a - 1526**

Types of thunderstorms. Tropical cyclones. Formation of a thunderstorm. Frequency of thunderstorms at sea. Ships struck by lightning. Ball lightning. Unusual phenomena. St. Elmo's fire.

**Becker Richard** - Täglicher und jährlicher Gang der Häufigkeit von Quellformen in der Bewölkung über dem Nordatlantik [*De frequentia novarum nubium formarum super Atlanticum. Agitur de earum ratione diurna et annua*]. 2 fig., 3 Tab., Ann. d. Hydrogr., LXIII, 6, 221-224. Berlin (1935). **a - 1527**

Resultat einer statistischen Untersuchung der Bewölkung über dem Nordatlantik, für welche als Material drei Jahrgänge (1931 bis 1933) der im « Täglichen Wetterbericht »

der Deutschen Seewarte enthaltenen Schiffsbeobachtungen herangezogen wurden. Zweck der Untersuchung war festzustellen, ob über dem freien Atlantik ein jährlicher und täglicher Gang in der Häufigkeit des Auftretens von Cumulus- und Cumulusnimbuswolken zu erkennen ist. Es wurde für die Beobachtungen das Areal, welches im Süden von 47. und im Norden vom 50. Breitenkreis begrenzt wird, und welches im Westen durch den 26. und im Osten durch den 21. Meridian seinen Abschluss findet, ausgewählt.

**Bennet M. G.** - Further Conclusions Concerning Visibility by Day and Night [*Conclusiones ulteriores quoad visum noctu diuque*]. 3 figs., 1 table. Quart. Journ. R. Meteorol. Soc., LXI, 259, 179-188. London (1935). **a - 1528**

Account of experiments carried out at Kew and Fernborough to test the theories of visibility put forward by Koschmieder and the author, and to determine the relation between visibility by day and night. The experiments have enabled a table to be drawn up showing approximately the distances that lights of various candle-powers can be seen on the average at night, in meteorological conditions corresponding to different daytime visibilities.

**Benson J. S.** - The Oxford University Expedition to Spitsbergen, 1933. Appendice III: Meteorology [*De expeditione ad* Spitsbergen *per Universitatem Oxoniam peracta A. 1933. Appendice III*ª: *Meteorologia*]. 4 tables, Geogr. Journ., LXXXIV, 2, 122-126. London (1934). **a - 1529**

Since the meteorological observations have been taken in Spitsbergen for a number of years, the results obtained by the University of Oxford Expedition have only a value in so far as they show the conditions experienced by the various parties. In the present report a summary is given of the observations during the months of July, August, and September, 1933 on the monthly means and extremes of temperature (Table I), on wind directions (Table II), on wind forces (Table III), and on weather conditions (Table IV).

**Bjerknes J.** - Investigations of selected European Cyclones by means of Serial Ascents [*Investigationes in selectos cyclones europaeos per ascensiones ex ordine peractae*]. 8 figs., tabl., Geofys. Publ., XI, 4, 1-18. Oslo (1935). **a - 1530**

The plan of the investigations carried on at Uccle in order to explore aerologically a fairly deep depression travelling across Southern England to the North Sea (December 30-31 1930) was the same as that of the previous of ascents described in Geofys. Publ. IX, 9. I. The synoptic situation. 2. The field of temperature in vertical cross section. The field of pressure in vertical cross section.

**Bjerknes J.** - La circulation atmosphérique dans les latitudes sous-tropicales [*De circulatione atmosphaerica in latitudinibus sub-tropicalibus*]. Scientia, LVII, CCLXXIV-2 Sér. III, 114-123. Bologna (1935). **a - 1531**

Cet article représente une tentative de déduire, à l'aide du raisonnement qualitatif et théorique, le système de vents à trois dimensions tel qu'il doit être établi entre 45° de latitude N et 45° de latitude S. En premier lieu, le système de vents doit satisfaire à la nécessité du « courant de chaleur » se dirigeant des régions tropicales où existe un surplus de chaleur aux régions extra-tropicales où la chaleur est en défaut, de façon à assurer une distribution stationnaire de chaleur (abstraction faite des oscillations saisonnières). En deuxième lieu, le système de vents doit transformer une quantité suffisante d'énergie calorique en énergie cinétique afin de compenser la partie d'énergie cinétique par friction. Cette condition ne peut être remplie que si les particules qui suivent un mouvement ascensionnel à l'intérieur de la ceinture tropicale chaude suivent un mouvement de descente en dehors de cette ceinture. En troisième lieu, la circulation atmosphérique doit être dynamiquement possible. Sur notre globe en rotation, cette condition a pour effet une structure cellulaire du système de vents, chaque cellule correspondant à un anti-cyclone sous-tropical asymétrique. Les particules d'air circulent dans les orbites anti-cycloniques, légèrement relevées dans leurs parties ouest et déprimées dans leur parties est. C'est ainsi que le cycle de transformation thermodynamique de chaque particule aboutit à la transformation d'énergie calorique en énergie cinétique. (Auteur).

**Bossolasco M.** - Salinità, nuclei di condensazione, e precipitazioni [*De salsedine, nucleis per condensationem deque praecipitationibus*]. Boll. Com. Geodesia e Geofisica del Cons. Naz. Ric., IV, 1-2, 54-59. Milano (1934). **a - 1532**

L'A., sulla base di alcune sue determinazioni della salinità dell'aria compiute a Mogadiscio durante il Monsone di S. W. che sembrano bene accordarsi con la legge di distribuzione trovata da H. Köhler mediante numerose misure fatte in Scandinavia, discute i rapporti fra salinità e nuclei di condensazione giustificando lo scarso numero di questi ultimi alla superficie dei mari e degli oceani e l'aumento considerevole degli stessi nuclei nelle regioni continentali. Infine, con riguardo alle condizioni delle coste della Somalia, esamina le relazioni che intercedono fra i nuclei di condensazione e la formazione della nebbia e delle precipitazioni.

**Brennan J. F.** - Relation of May-June Weather Conditions in Jamaica to the Caribbean Tropical Disturbances of the Following Season [*Correlatio inter meteorologicas condiciones in Jamaica, mensibus Majo et Junio et perturbationes tropicales Maris Caraibici tempore sequenti*]. 1 fig., 3 tables. Monthly Weath. Rev., LXIII, 1, 13-14. Washington D. C. (1935). **a - 1533**

The tables contain statements concerned with (1) the amount of rainfall, mean daily miles of wind and mean barometric pressure during the combined months of May, June, and July 1903 to 1934, (2) 5 years of instances during the period from 1903 to 1934 when the months of May, June and July, indicate abnormal conditions of rainfall, surface wind and barometric pressure, favorable to hurricane activity during the months of August and September, in the Caribbean region, and (3) id. favorable to the absence of hurricane activity, during the months of August and September, in the Caribbean region.

**Brooks C. E. P.** - The Pleistocene Climate of Bermuda [*De climate pleistocenico in insulis* Bermuda]. Geogr. Rev., XXV, 2, 340-342. New York (1935). **a - 1534**

Account of a paper by Kirk Bryan and R. C. Cady, in which starting in Bermuda with data inferred from fossil dunes, they reconstruct the atmospheric circulation of the whole North Atlantic during the Ice Age (S.: Amer. Journ. Sc., Ser. 5, vol. XXVI, 241-264, 1934), and of other work by R. W. Sayles, G. C. Simpson (S.: Proc. Amer. Acad. Arts & Sc., LXVI, 11 381-467, 1931, and « Quart. Journ. R. Meteor. Soc.», LX, 425-478, 1934). The real importance of Bermuda in the study of past climates is shown.

**Brooks C. E. P.** - The Variation of the Annual Frequency of Thunder-Storms in Relation to Sunspots [*De annua frequentia tempestatum eiusque variatione pro solis maculis*]. Quart. Journ. R. Meteorol. Soc., LX, 254, 153-162, (discussion) 162-165. London (1934). **a - 1535**

**Brooks C. E. P.** - The Circulation of Air by Day and Night During the South-West Monsoon near Berbera, Somaliland [*De aëris diurna et nocturna circulatione dum halitat ventus indicus sudorientalis apud* Berbera *in Somalia*]. 4 figs., 4 tables. Quart. Journ. R. Meteorol. Soc., LXI, 259, 167-177. London (1935). **a - 1536**

1. The diurnal variation of wind and pressure over the Gulf of Aden. 2. The thermal effects between land and the narrow seas. 3. The diurnal variation of resultant winds. 5. The diurnal variation of cumuliform clouds. Discussion.

**Brunt David** - Physical and Dynamical Meteorology [*De meteorologia physica et dynamica*]. xxii-412 pp., Univ. Press., Cambridge (1934). **a - 1537**

The author, Professor of Meteorology at the London University, has written this volume for graduated readers. He deals especially with atmospheric physics and develops the mathematic part of the work, avoiding nevertheless the necessity of employing the vectorial calculation. He gives the summary of the different theories and hypothesis concerned with the many controversional problems of meteorology and shows all the uncertain points of the doctrines which are still in development. It is a very useful work for students dealing with meteorology in general.

**Burchard Oscar** - Klimatographische Witterungsschilderung. Nr. 33: Kanarische Inseln [*Descriptiones meteorologicae climatographicae. N. 33 Insulae Canariae*]. Ann. d. Hydrogr., LXIII, 3, 123-124. Berlin (1935). **a - 1538**

Aus der Sammlung des überseeischen meteorologischen Dienstes der Deutschen Seewarte: Typischer Verlauf eines Wintertages in « La Mocana » bei La orotava auf Tenerife. Beobachtungstag: der 19. Januar 1935.

**Byers H. R.** - The Air Masses of the North Pacific [*Massae aëriae Oceani Pacifici Sept.*]. 30 figs. & diagrs., Bull. Scripps Inst. Ocean. Techn. Ser. III, 14, 311-354. La Jolla, Calif. (1934). **a - 1539**

Introduction. Air mass properties: sources, characteristic properties. Interaction of the air masses: zones of interaction (frontogenesis), frontal movements. The weather of the Pacific coast of the United States. Literature cited. Maps and diagrams. Explanation of symbols used on maps.

**Byers Horace R.** - The Use of Free-Air Soundings in General Forecasting [*De utendis scandaliis aëre libero ad obtinendas provisiones temporis generales*]. 1 fig., Monthly Weath. Rev., LXII, 10, 376-378. Washington D. C. (1934). **a - 1540**

The author proves the usefulness of free-air soundings in general forecasting practice and shows that the following four factors should be studied in connection with the soundings, i. e.: the identification of air masses, the changes that are taking place in the air masses as shown by the comparison with previous data on the same masses, the present state of stability or instability of the air, and the changes in lapse rate which may be expected, especially if the air is lifted along a front or over a large mountain area.

**Carpenter Archer B.** - Record November Fog Preceding Phenomenal Winter of 1933-1934 in the Pacific Northwest [*De abnormi nebula, mense Novembri, quae antecessit hiemem notandam A. 1933-34 in Oceano Pacifico nord-occidentali*]. 2 figs., 2 tables, Monthly Weath. Rev., LXII, 11, 404-407. Washington D. C. (1934). **a - 1541**

Some results of observations, which show that there is a strong possibility that records covering a long period may show a correlation between severe winters in central Alaska, November fog and December floods in the Northwest, and severe cold in the Northeastern States.

**Carruthers J. N.** - Projet d'anémomètre totalisateur pour l'océanographie [*De anemometro pro oceanographia*]. 1 fig., Rev. Hydrogr., XII, 1, 34-40. Monaco, Princ. (1935). **a - 1542**

Instrument établi spécialement pour intégrer les vents par quarts du compas, tant pour leur direction que pour leur vitesse.

**Carter H. G.** - Climatic Trend in the Pacific Northwest [*De climate in regione nord-occidentali Oceani Pacifici*]. 4 figs., 2 tables. Monthly Weath. Rev., LXIII, 1, 19-23. Washington D. C. (1935). **a - 1543**

The purpose of the present note is to determine whether climate has undergone any progressive change in one definite direction within the memory of the present generation, in the Pacific Northwest. Author considers as representative of the coast climate of the Pacific Northwest, the Weather Bureau records at Portland, Oreg., and Seattle, Wash., and the records at Boise, Idaho; Spokane, Wash.; and Walla Walla, Wash., as representative of the climate of the interior stations. Indicating the weather of the past, the data presented are, however, not to be interpreted as indicating an indefinite continuation of temperatures above normal and precipitation below normal.

**Castens Gerhard** - Die Temperatur-Wetterhaftigkeit und ihr jährlicher Gang [*De coeli conditionum dependentia a temperatura eiusque ratione annua*]. 5 Tabl., Ann. d. Hydrogr., LXIII, 1, 47-51. Berlin (1935). **a - 1544**

In der vorliegenden Studie ist die Temperatur- Wetterhaftigkeit von Hamburg für alle Monate berechnet worden. Der zugrunde gelegte Zeitraum umfasst die Jahre 1881 bis 1930 (Tabelle 1). Die Wetterhaftigkeit ist auch mit der « Zeit » verbunden worden (Tabelle 2). Die Verwertung der Beobachtungen dient in der Hauptsache den klimatologischen Ansprüchen der Praktiker.

**Chapel L. T.** - The Significance of Air Movements Across the Equator in Relation to Development and Early Movement of Tropical Cyclones [*De aëris motibus per aequatorem pro cyclonum tropicalium initio et progressione*)]. 5 tables. Monthly Weath. Rev., LXII, 12, 433-438. Washington D. C. (1934). **a - 1545**

Author considers the question of relationship between extensive air movements across the Equator and the development and early movement of tropical cyclones from the standpoint of local observations on the Isthmus of Panama. He calls attention to several points concerning tropical cyclones and the general air movements of the tropics. He intends briefly to consider available data covering periods of southerly winds at Panama with particular attention to the question of the existence or nonexistence of the two theoretical forms of action of the air flows across the Equator, and, if such forms of action exist, of their importance in relation to the formation and early movement of tropical cyclones. The southerly winds at Panama and their association with tropical cyclones are discussed.

**Chapman S.** - A Mechanical-Optical Method of Reduction of Pairs of Auroral Plates [*Methodus optico-mechanica ad reducendas pares laminas photographicas quae auroram borealem repraesentant*]. Terr. Magn., XXXIX, 4, 299-303. Baltimore (1934). **a - 1546**

A new method is suggested for the reduction of the great number of pairs of auroral plates that have accumulated during the Polar Year, and to be continued in future. The method described seems in principle to be the simplest possible because it is a direct reconstruction, on a reduced scale, of the original situation of cameras and aurora at the time of the simultaneous photographic exposures.

**Christensen A. H.** - Analysis of a Warm « Cold Front » [*Analysis cuiusdam casus notandi qui dicitur* Cold front]. Monthly Weath. Rev., LXIII, 1, 9. Washington D. C. (1935). **a - 1547**

Account of a case observed by the writer on October 26th, 1933, of a cold front, with an unusual action which at first appears entirely opposite to the manner in which a normal front should and does act. Author claims that while the conditions described are unusual, they are not so rare as to be considered entirely abnormal and that fronts of the kind described occur often enough in the middle west for conclusions drawn from an analysis of this kind to be of value in actual forecast work.

**Corlin A.** - Catalogue of Aurorae Borealis Observed in Northern Sweden During the Time August 1932-March 1933 [*Aurorae boreales observatae in Suetia Sept. a mense Augusto 1932 ad mensem Martium 1933. Elenchus*]. Vetensk. Akad. Handl., Ser. 3, XIII, 6; Medd. Lund. Obs., Ser., 2, 67, 41 pp. Stockholm (1934). **a - 1548**

Observations of auroras made during the International Polar Year 1932-1933 at the Geophysical Observatory of Abisko, supplemented by those taken at Riksgränsen and Kiruna. The data are given in tables of 10 columns, viz. month, day, hour, type (according to scheme proposed by Störmer for Polar-Year work), azimuth, altitude, intensity (on scale of 0 to 4), place, remarks and simultaneously recorded ionization due to cosmic radiation. In all data 1134 auroras are given.

**De Pasquale O.** - Sulla determinazione degli spessori delle nebbie e delle nubi [*De nebularum et nubium crassitudine. Determinatio*]. Atti R. Acc. Peloritana, XXXVI, 143-152. Messina (1934). **a - 1549**

È descritto un modello di metereografo atto a potere determinare agevolmente lo spessore delle nebbie e delle nubi, mediante ascensioni nella libera atmosfera. È applicato per tanto ad un noto metereografo italiano (barotropico) uno speciale dispositivo termografico, che consente la disposizione esterna di una sferetta annerita, collegata con un tubo di Bourdon. La fuoruscita dello strumento da uno strato di nebbia o nubi è messa in evidenza da uno scarto notevole che si nota nel diagramma relativo a tale dispositivo, in confronto con quello dell'ordinario termografo del metereografo stesso.

**Dobson G. M. B. & Meetham A. R.** - Atmospheric Ozon and Meteorology [*De ozono atmosphaerico deque meteorologia*]. Quart. Journ. R. Meteorol. Soc., LX, 256, 265-278. London (1934). **a - 1550**

**Doucette Bernard F.** - Typhoons in the Far East During 1934. [*De typhonibus in ultimis orientis regionibus A. 1934*]. 5 tables. Monthly Weath. Rev., LXII. Washington D. C. (1934). **a - 1551**

See all the numbers of the year.

**Douglas C. K. M.** - A Note on Frontal Thunderstorms [*De tempestatibus frontalibus*]. Meteorol. Magaz., LXIX, 825, 205-208. London (1934). **a - 1552**

**Douglas C. K. M.** - The Physical Processes of Cloud Formation [*De rationibus physicis quoad nubium formationem*]. Quart. Journ. R. Meteorol. Soc., LX, 256, 333-341. London (1934). **a - 1553**

**Douglas C. K. M.** - Some Facts and Theories About the Upper Atmosphere [*Res quae pertinent ad atmosphaerae stratus superiores*]. 6 figs., 5 tables. Quart. Journ. R. Meteorol. Soc., LXI, 258, 53-70. London (1935). **a - 1554**

The paper is divided in the five following sections: 1. Temperature changes in a given air mass between 1 and 5 kilometres; 2. The rain areas of depression; 3. The tropopause; 4. The rotary aspects of depressions and anticyclones; 5. Troposphere and stratosphere.

**Dunn G. E.** - Tropical Storms of 1934 [*Tempestates tropicales A. 1934*]. 2 tables. Monthly Weath. Rev., LXII, 12, 457. Washington D. C. (1934). **a - 1555**

Account of eleven tropical disturbances reported in 1934 in the Atlantic, Caribbean Sea, and the Gulf of Mexico. Tables containing data on the monthly frequencies of West Indian hurricanes and other tropical storms of the North Atlantic Ocean in 1934, and the synopsis of tropical storms of 1934.

**Dzerdzevskij B.** - Organisation du Service Météorologique dans l'Arctique [*Ratio quae pertinet ad servitium Meteorologicum in Arctide*]. (En russe). Bull. Arct. Inst., 10, 368-370. Leningrad (1934). **a - 1556**

Résumé du développement du Service Météorologique dans l'Arctique Soviétique avec référence spéciale à l'élaboration de cartes météorologiques synoptiques de cette région de l'URSS et l'organisation du service radiologique pour la transmission du bulletin météorologique.

**Dzerdzevskij B.** - Service météorologique des expéditions arctiques en 1934 [*Servitium meteorologicum ad expeditiones in regiones arcticas pertinens A. 1934*]. (En russe). Bull. Arct. Inst., 1/2, 16–18. Leningrad (1935). **a - 1557**

Distribution du travail entre les trois Offices Météorologiques navigants dans l'Arctique Soviétique établis sur les brise-glace « Yermak », « Malyghine » et « Lidtke », avec référence spéciale à l'élaboration des données synoptiques du temps et la transmission par T. S. F. des prédictions aux navires en navigation. Deux exemples de l'utilisation réussie des prognoses transmises; ultérieure élaboration du matériel recueilli.

**Egersdoerfer L.** - Versuch einer harmonischen Analyse von Wetterkarten auf zeichnerischem Wege [*De analysi harmonica chartarum meteorologicarum per systhema graphicum*]. 4 Tabellentaf., 4 Taf., Ann. d. Hydrogr., LXIII, 5, 204-210. Berlin (1935). **a - 1558**

*a*) Aus dreitägigen Isallobarenkarten werden mittels der harmonischen Analyse nach den Methoden der graphischen Elementaralgebra unter Benutzung einer Doppeltabelle die Amplitude und Phase der sechstägigen Luftdruckwelle entwickelt. Das Verfahren wird an einem Beispiel der Isobarenkarte der Nordhalbkugel (15. bis 20. XI. 1933) erläutert. *b*) Im letzen Abschnitt wird das Verfahren auf Ordinaten, deren Anzahl durch 4 teilbar ist, übertragen (Rungesches Verfahren) und für die Praxis meist gebrauchten Fälle m = 8, 12, 20, 24, 36 und 72 ausgearbeitet und durch Tafeln unterstützt.

**Fergusson S. P.** - An International Comparison of Standard Barometers [*De barometris standardisatis. Comparatio internationalis*]. 7 tables, Monthly Weath. Rev., LXII, 10, 364-366. Washington D. C. (1934). **a - 1559**

Comparison between the barometers at Blue Hill Observatory, and between the standards of the Weather Bureau, the Geographical Institute and the Canadian Meteorological Office, followed by the quotation of a paper by J. E. Seats and J. S. Clark, containing the description of the new British standard barometer, and of a letter of the Director of the U. S. Bureau of Standards, describing briefly the new standard instruments of the Bureau.

**Findeisen Walter** - Zur Theorie des Psychrometers [*De psychrometro*]. Meteorol. Ztschr., LI, 3, 89-100. Braunschweig (1934). **a - 1560**

Im Gegensatz zur bisherigen Betrachtungsweise des Psychrometervorganges wird in der vorliegenden Arbeit die Theorie des Psychrometers auf den Ergebnissen der Grenzschichttheorie aufgebaut. Es werden Beziehungen abgeleitet die zur Auswertung psychrometischer Messungen dienen

können, und der Anschluss an die üblichen Psychrometerformeln hergestellt. Die Theorie führt zur Klärung von Streitfragen und ergibt quantitative Uebereinstimmung mit den Erfahrungstatsachen empirischer Untersuchungen. (Sprungsche Formel).

**Frank H.** - Betrachtungen zum Prognoseproblem [*Considerationes de coeli condicionibus providendis*]. Ann. d. Hydrogr., LXIII, 4, 167-170. Berlin (1935). **a - 1561**

Vf. stellt über gewisse Probleme der Wettervorhersage einige Ueberlegungen an, welche den Problemen der Atomphysik ähnlich sind, erweitert sie ohne weiteres auf mancherlei Erscheinungsformen der Natur und betont eindringlich die Notwendigkeit alle Naturerscheinungen im Rahmen des eigenen Erscheinungsraums zu betrachten.

**Frank H. & Eichler K.** - Wetterkunde für den Wassersport. Windkarten (Anh.) [*De meteorologia quoad artem nauticam delectandi causa suscipiendam. Ventorum tabulae*]. Karten. 64 S., Klasing & Co., Berlin (1934). **a - 1562**

**Frongia G.** - I principali elementi del clima di Cagliari [*De praecipuis elementis climatis Caralitani*]. 9 fig., Rendic. Sem. Fac. di Scienze R. Univ. di Cagliari, IV, 2, 37-48, Cagliari (1934). **a - 1563**

In prosecuzione delle osservazioni meteorologiche eseguite dal dott. C. Zedda nel ventennio 1983-1912 nell'osservatorio Meteorologico annesso all'Istituto di Fisica della R. Università, l'A. esamina le osservazioni che abbracciano il periodo 1913-32, sia per confrontare i dati dei due ventenni, sia per ottenere una media generale per un periodo di 40 anni. I dati raccolti, riguardano la pressione atmosferica, la temperatura, la tensione di vapore, l'umidità relativa, la precipitazione acquea, la nebulosità.

**Gold E.** - Fronts and Occlusions [*De frontibus et occlusionibus*]. 29 figs., Quart. Journ. R. Meteor. Soc., LXI, 259, 107-157. London (1935). **a - 1564**

1. The approach: progress made in the development of the theory and practice of fronts. 2. The development; with especial regard to the work of V. Bjerknes and J. Bjerknes in Norway: the polar front, idealised cyclone, the « life cycle » of cyclones, the formation of secondary cold front. 3. Theory and examples: in this section, leaving the idea of cyclone and anticyclone author considers the fronts as independent unities; recognition of fronts or occlusions and air mass classification in order to elucidate the weather phenomena. 4. Fronto-lysis. Fronto-genesis. 5. Examples of fronto-genesis and fronto-lysis. 6. Isothermal layers. 7. Conclusion.

**Goldie A. H. R.** - Wind Records from the Bell Rock Lighthouse [*De ventorum inscriptionibus in chartis peractis in pharo* Bell Rock]. Pls., 22 pp., Air Ministr. Meteorol. Off. Geophys. Mem., 63. London (1935). **a - 1565**

**Gorczynski Ladislas** - Climat solaire de Nice et de la Côte d'Azur [*De climate solari in* Nice *atque praeter litora* Côte d'Azur]. Ill., tables. vii + 208 pp. Mém. IV Assoc. Natur. Nice & Alpes-Marit., Riv. Sc. Nice (1934). **a - 1566**

**Groissmayr F. B.** - Ausgleichsgebiete der Temperatur - Anomalien im Frühling und Herbst auf der Nordhemisphäre [*Zonae quae aequilibrant abnormes temperaturas, vere et autumno, in hemisphaerio nordico*]. 3 Tab., Ann. d. Hydrogr., LXIII, 3, 121-123. Berlin (1935). **a - 1567**

Schilderung der stark ausgeprägten Temperatur-Ausgleichbestrebungen in einer Anzahl von Gebieten in der Nordhemisphäre in den beiden Uebergangsjahreszeiten: Mittel: 1881-1924 und 1886-1924.

**Grundmann Walter** - Ueber Nullpunktsänderung der Thermometer in Abhängigkeit der Alterung von Glas und Temperaturindikator unter besonderer Berücksichtigung der in der Meteorologie vorkommenden Temperaturbereiche [*Agitur de puncto zero in thermometris eiusque variationibus quae a vitro obsoleto dependunt*]. 4 Tab., Ann. d. Hydrogr., LXII, 12, 488-493. Berlin (1934). **a - 1568**

Es werden diejenigen Fehler nach Quantität und Qualität gekennzeichnet, die bei den in Meteorologie und Klimatologie vorzugsweise verwandten Quecksilber-und Flüssigkeitsthermometern auftreten können, und zwar: 1. Bei den Quecksilberthermometern die Nullpunktsattraktion, infolge der altersbedingten Glaskontraktion; 2. Bei den Flüssigkeitsthermometern: *a*) die Nullpunktsattraktion, infolge der altersbedingten Glaskontraktion, *b*) die Nullpunktsdepression infolge Kontraktion, Kompressibilität und Ueberdestillieren der Anzeigeflüssigkeit. Die dadurch hervorgerufene Missweisung in der Temperatur kann u. U. bis zu 2° C betragen. (Vf.).

**Guthrie Leon J.** - Southeasterly Winds of the Southern San Joaquin Valley, Calif. [*De ventis sud-orientalibus in valle meridionali S.cti Joachini in California*]. Monthly Weath. Rev., LXII, 8, 294-295. Washington D. C. (1934). **a - 1569**

Some considerations as to the relationship between the disturbances of the atmosphere in the southern San Joaquin Valley and such on and off the coast of California.

**Haeger H.** - Wasserhose im Baham-Kanal [*De columna marina in canali* Bahama]. Seewart, IV, 2, 83-85. Hamburg (1935). **a - 1570**

Beschreibung einer Seehose, die während einer Reise von Puerto Tarafa (Nuevitas) in Cuba nach Santiago de Cuba durch den Bahama Kanal, am 30. September 1934 beobachtet worden ist.

**Hennessy J.** - Fog and Mist in the Western Half of the English Channel [*De caligine in regione occidentali Freti Britannici*]. 4 figs., Mar. Obs., XII, 119, 111-113. London (1935). **a - 1571**

Paper of descriptional and statistical character. Diagrams illustrating the reported data.

**Humphreys W. J.** - Weather Proverbs and Paradoxes [*Proverbia et paradoxa quoad coeli condiciones*]. 16 pls., xii + 126 pp. Will. & Wilkin Co., Baltimore, MD.; Baillière, Tindall & Cox. London (1934). **a - 1572**

**Hunter H. C.** - Weather of the Atlantic and Pacific Oceans. - North Atlantic Ocean [*Condiciones meteorologicae Oceani Atlantici et Oceani Pacifici. Atlanticus Sept. Mense Januario 1935*]. 2 tables, Monthly Weath. Rev., LXIII, 1, 32-33 & 34-35. Washington D. C. (1935). **a - 1573**

Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic and its shores, in all the numbers of the year.

**Hurd Willis E.** - Weather of the Atlantic and Pacific Oceans. North Pacific Ocean [*Condiciones meteorologicae Oceani Atlantici et Oceani Pacifici. Pacificus Sept. Mense Augusto 1934.*]. 1 table. Monthly Weath. Rev., LXII. Washington D. C. (1934-1935). **a - 1574**

Atmospheric pressure, cyclones and gales, typhoons, fog in all the numbers of the year.

**Imbò G.** - Riassunto delle osservazioni meteorologiche e sismiche eseguite nel R. Osservatorio Geofisico di Catania durante l'anno 1932 [*Compendium observationum meteorologicarum et sysmicarum in R. Observatorio Geophysico Catanensi peractarum A. 1932*]. Acta Soc. Gioeniae Catanensis Nat. Scient., XX, 2, mem. XII, 5. Catania (1934). **a - 1575**

Pressione atmosferica. Temperatura. Tensione del vapore ed umidità relative. Nebulosità. Pioggia. Vento.

**Imbò G.** - Riassunto delle osservazioni meteorologiche e sismiche eseguite nel R. Osservatorio di Catania durante l'anno 1933 [*Compendium observationum meteorologicarum et sysmicarum in R. Observatorio Geophysico Catanensi peractarum A. 1933*]. 6 pp., Acta Soc. Gioeniae Catanensis Nat. Scient., XX, 2, mem. XIV. Catania (1934). **a - 1576**

Pressione atmosferica. Temperatura. Tensione del vapore ed umidità relative. Nebulosità. Pioggia. Vento.

**Juergens S.** - Norder im Golf von Tehuantepec [*Ventus nordicus in Sinu* Tehuantepec]. 1 Tab., Seewart, IV, 1, 19-21. Hamburg (1935). **a - 1577**

Beschreibung eines typischen Tehuantepecer und dessen Begleiterscheinungen, welche am 16. November 1933 in 15° 50° N-Br, 98° 29' W-Lg beobachtet worden sind, mit ergänzenden Bemerkungen von der Schriftleitung des « Seewarts ».

**Kalitine N. N.** - Sur les radiations solaires sur la Terre de François-Joseph. Données préliminaires [*De solis radiationibus in Terra Francisci Josephi. Dati priores*]. (En russe). 2 Tabl., Bull. Arct. Inst., 1/2, 21-23. Leningrad (1935). **a - 1578**

Bref résumé des résultats des observations faites à l'aide d'un héliographe installé dans l'Observatoire de la Baie Tikhaja en Août 1932.

**Kame de Feriet J.** - La turbulence du vent dans les couches inférieures de l'atmosphère [*De ventorum turbulentia in atmosphaerae stratibus inferioribus*]. 18 fig., tabl. Rev. Quest. Sc., LIV, 18-63. Paris-Louvain (1935). **a - 1579**

Exposé contenant une esquisse de l'état actuelle des recherches sur la structure du vent, avec référence spéciale au mouvement d'agitation complexe, à courte période, qui constitue ce que l'on nomme la turbulence du vent. L'ouvrage se divise nettement en deux parties, dont l'une contient des aperçus théoriques sur l'objet de l'étude, et la deuxième donne la description de recherches et résultats expérimentaux.

**Kimball Herbert H.** - Turbidity and Water Vapor Determinations from Solar Radiation Measurements At Blue Hill, and Relations to Air-Mass Types [*De atmosphaera turbida deque vapore aqueo. Determinationes ex mensuris irradiationis solaris in* Blue Hill. *Agitur etiam de correlationibus cum aëris massis*]. 3 tables, Monthly Weath. Rev., LXII, 9, 330-333. Washington D. C. (1934). **a - 1580**

Table of values of $\beta$ (atmospheric turbidity factor), and $\varpi$ (atmospheric vapor content), computed from measurements of the total ($I^{m}$) and screened ($I_y$, $I_r$) solar radiation intensity, obtained at the Blue Hill Meteorological Observatory of Harvard University. Some comments as to the interpretation of the data recorded with especial reference to the determination of the turbidity factor.

**Kunze G.** - Beiträge zur Klimatologie des Europäischen Nordmeeres (Skandik). Auf Grund der Beobachtungen der Insel– und Küstenstationen [*Contributiones in climatologiam Maris Nordici ex observationibus in stationibus insularibus et litoreis peractis*]. 15 Skizz., 77 S. (Diss. Univ. Breslau). Breslau (1933). **a - 1581**

Beschreibung des Klimas von Spitzbergen, der nordnorwegischen und ostgrönländischen Küste. Statistische Daten über die absoluten Temperaturextreme 1911-28 (°C) und die Zahl der Niederschlagstage 1911-1928. Der letzte Teil der Arbeit enthält eine Polemik gegen die Anschauung von Robitzsch in Bezug auf den Wärmerückfall im Dezember der Polargebiete in Verbindung mit den Eisverhältnissen.

**Landsberg H.** - Observations of Condensation-Nuclei in the Atmosphere [*De observatis nucleis per atmosphaerae condensationem*]. 7 figs., Monthly Weath. Rev., LXII, 12, 442-445. Washington D. C. (1934). **a - 1582**

1. The results of 1,051 observations of condensation-nuclei at four different localities are given. 2. Connections between the number of nuclei and convection and turbulence are shown; and correlations between nuclear counts, relative humidity, visibility and wind are mentioned. 3. The relationship between nuclei contents and air mass is discussed, and the former found to be a valuable help in air mass analysis. 4. The effects of nuclei on human health and their absorption of radioactive emanation are discussed. (Author).

**Lauscher Friedrich** - Vom Klima der Packeiszone. Referat über die Forschungsergebnisse der Norwegischen Nordpolarexpedition mit der « Maud », 1918 bis 1925, erstattet nach den Veröffentlichungen von H. U. Sverdrup [*De zona glaciata eiusque climate. Relatio redacta ex resultatibus investigationum per expeditionem norvegicam ad Polum peractarum in navi* « Maud » *ab A. 1918 ad A. 1925. Exitus deducti a publicationibus prof.* H. U. Sverdrup]. 4 Tab., Meteorol. Ztschr., LI, 11, 401-408. Braunschweig (1934). **a - 1583**

Kurze einleitende Bemerkungen über den Verlauf der Expedition. Veröffentlichungen. Aerologische Beobachtungen. Temperatur. Luftfeuchtigkeit. Niederschlag. Rauhreif. Nebel und Dunst. Wolken und Bewölkung. Die Zirkulation der Luft.

**Lejay P.** - Etude de la variation diurne des atmosphériques à Shanghai [*De variatione diurna atmosphaerae in* Shanghaï]. 1 table, C. R. Acad. Sc., CC, 9, 768-770. Paris (1935). **a - 1584**

Compte-rendu des résultats d'enrégistrements poursuivis d'une façon continue au cours de trois années 1932, 1933 et 1934, à l'Observatoire de Zi-ka-wei, par la méthode de M. Bureau avec un instrument qui compte les atmosphériques. L'A. représente sur des courbes les moyennes mensuelles du nombre des atmosphériques enregistrés à chaque heure du jour. Les courbes ont pour chaque année des formes semblables; cette remarquable fidélité est d'autant plus frappante que l'allure des courbes se modifie considérablement d'un mois au suivant.

**Lettau Heinz** - Turbulente Schwankungen von Wind und Temperatur in der bodennahen Luftschicht als Austauschproblem [*Ventorum atque temperaturae oscillationes turbidae in strato aërio prope terrenum consideratae ac problema permutationis*]. 2 Abb., 1 Tab. Ann. d. Hydrogr., LXII, 12, 469-473. Berlin (1934). **a - 1585**

Ergebnisse von Untersuchungen der turbulenten Schwankungen einiger meteorologischen Elemente, welche am Geophysikalischen Observatorium von Leipzig an Hand wiederholter Registrierungen von Windgeschwindigkeit, Temperatur und auch unmittelbar von dem vertikalen

Temperaturgradienten auf elektrischem Wege unternommen worden sind. Anordnung der Versuche. Wichtigkeit der Verarbeitung von Kenntnissen über Gesetzmässigkeiten bei Vorbedingung, Entstehen und Ausmass atmosphärischer Turbulenz, weil darin der Schlüssel zu meteorologischen Diagnosen und Prognosen bei den nautisch massgeblichsten Wetterelementen Sicht, Nebel und Bodenwind liegt.

**Lugeon J.** - L'ionosphère et la météorologie [*De ionosphaera deque meteorologia*]. Actes Soc. Helv. Sc., Nat., 220-242. Altdorf. **a - 1586**

**Lugeon J.** - Localisation à grande distance des foyers de parasites atmosphériques sans radiogoniomètre [*De parasitis atmosphaericis sine ullo radiogoniometro, maximo spatio, determinatis*]. 1 fig., C. R. Acad. Sc., CIC, 20, 1059-1061. Paris (1934). **a - 1587**

Courbe d'enregistrement des parasites issus d'un foyer lointain en fonction des mouvements du soleil. Détermination graphique de l'azimut avec deux enregistreurs distants de plusieurs centaines de kilomètres.

**Lüth F.** - Zur Frage der Messung der Lufttemperatur auf See [*Quaestio de mensuranda aëris temperatura ad mare*]. 4 Tab., 1 Fig. Ann. d. Hydrogr., LXII, 12, 473-475. Berlin (1934). **a - 1588**

Ausführungsart und Ergebnisse der vom Vf. unternommenen Thermometervergleichsmessungen mit zwei in Jalousiekästen aufgehängten Thermometern (Seeobshütten) und einem Assmannschen Aspirationspsychrometer. Die Messungen wurden auf dem Wege Antwerpen- Marokko-Hamburg vom 26. VI bis zum 3. VIII. 1934 an Bord des Dampfers « Porto » ausgeführt. Verschiedene auf die Messinstrumente zum Ausdruck gekommene Einflüsse.

**Markgraf H.** - Entwicklung des « Täglichen Wetterberichts » von 1876 bis 1934 [*Ephemeris meteorologica eiusque progressus ab A. 1876 ad A. 1934*]. Ann. d. Hydrogr., LXIII, 5, 214-216. Berlin (1935). **a - 1589**

Anlässlich der in Juni 1934 erfolgten Erweiterung der aerologischen Meldungen wird eine Uebersicht des von der Deutschen Seewarte herausgegebenen täglichen Wetterberichtes gegeben.

**Martin R. J.** - Climatological Tables. Description of Tables and Charts [*Tabulae climatologicae. Tabularum et chartarum descriptio*]. 10 charts, 2 tables, Monthly Weath. Rev., LXIII, 1, 37-43. Washington D. C. (1935). **a - 1590**

Comment of tables which give respectively data ordinarily needed for climatological studies for about 180 Weather Bureau stations making simultaneous observations and the means of pressure and temperature and other meteorological statements for about 37 stations of the Canadian Meteorological Service. Illustrative comment to the charts showing temperature departures, tracks of centers of anticyclones and cyclones, percentage of clear sky between sunrise and sunset, total precipitation, isobars and sea level, and isotherms at surface, prevailing winds, wind roses for selected stations, total snowfall and North Atlantic weather maps of particular days.

**McEwen F.** - Quarterly Forecasts of Sea and Air Temperatures [*Praesagia trimenstria aëris et maris temperaturae*]. 3 figs., 2 tables. Monthly Weath. Rev., LXII, 10, 361-364. Washington D. C. (1934). **a - 1591**

The author claims that the variation of average monthly temperature of both the sea and air may be regarded as the result of regular, well defined trends in causes, accompanied by accidental disturbances. In searching for the proper factors it is assumed that a composite index to them, of forecast value, is furnished by past temperatures. Proceeding empirically in this basis, the monthly temperatures are « smoothed » or adjusted in order to eliminate the irregularities which at first are regarded as accidental. Assuming this smoothed temperature to form a composite index of the various trends in causes, various methods of extrapolation can be applied to predict the future smoothed temperature. Such a procedure has been applied in California, where a very definite correlation was found.

**Meinardus W.** - Eine neue Niederschlagskarte der Erde [*Praecipitationum in Terram tabula nova*]. Karte, 2 Taf., Peterm. Mitt., LXXX, 1, 1-4. Gotha (1934). **a - 1592**

Diese Arbeit schliesst sich an die von Schott und Supan gemachten Niederschlagskarten des Indischen, Stillen und Atlantischen Ozeans, welche hier auch erörtert werden. Die Grundlagen der Niederschlagskarte. Die mittlere jährliche Niederschlagsmenge auf der Erde für Land und Meer. (S. auch Peterm. Mitt. 7/8, 225-226).

**Mellicchia A.** - L'organizzazione meteorologica europea [*Organisatio meteorologica europaea*]. Ric. Scient., a. V, 3-4, 71-84. Roma (1934). **a - 1593**

L'autore rende conto di una sua missione che gli ha consentito di studiare l'organizzazione dei servizi meteorologici dei principali paesi di Europa e con brevi note descrive singolarmente i vari istituti meteorologici.

**Mieghem van Jacques** - Thermodynamique des systèmes non-uniformes en vue des applications à la météorologie [*De systhematis non-uniformibus eorumque thermodynamica pro applicationibus ad meteorologiam*]. Geofys. Publ., X, 14, 1-18. Oslo (1935). **a - 1594**

La partie thermodynamique est basée sur le travail de M. le Prof. Th. De Donder, Leçons de Thermodynamique et de Chimie-Physique. Equations du transport de l'air atmosphérique et équation de continuité. Equation staecométrique de la météorologie. Variables d'état et fonctions d'état. Equations dynamiques de la météorologie. Bilan dynamique de l'énergie. Travail élastique effectué par l'unité de masse élémentaire sur le milieu ambiant. Relations entre les composantes du tenseur de la viscosité et la fonction dissipative de Lord Rayleigh. Bilan thermodynamique de l'énergie. Divers bilans energétiques. Calcul des quantités de chaleur fournies à l'unité de masse pendant l'unité de temps. Le seconde principe de la thermodynamique. Calcul des quantités de chaleur non compensée. Hypothèses fondamentales. Bilan énergétique de M. V. Bjerknes. Bilan énergétique de M. A. Refsdal. Transformations quasi-adiabatiques.

**Miller Eric R.** - Some Wind Velocity Correlations [*Nonnullae correlationes velocitatis venti*]. 3 tables, Monthly Weath. Rev., LXII, 11, 402-404. Washington D. C. (1934). **a - 1595**

Two studies of wind velocities in as many relationships employing the methods of correlation analysis, are reported in this paper. The first one deals with the conversion of monthly means indicated (4-cup anemometer) wind velocities to true velocities.

**Miloja Salvatore** - Tavole ciclonometriche per la determinazione in mare della distanza e del rilevamento del centro delle depressioni tropicali ed extratropicali tra le latitudini 5°-50° Nord o Sud [*Agitur de tabulis cyclonometricis quae determinant distantiam nec minus centrum depressionum tropicalium et extratropicalium inter latitudines 5° et 50° N. et S.*). R. Istit. Idrogr. Genova (1935). **a - 1596**

Tavole basate su formule empiriche.

**Mirrlees S. T. A.** - Meteorological Results of the British Arctic Air-Route Expedition 1930-31 [*Exitus meteorologici navigationis Britannicae ad

*cursum aërium arcticum studendum peracti A. 1930–1931*]. Maps, diagrs. 62 pp., H. M. Stat. Off. London (1934). **a - 1597**

Careful analysis of all the meteorological observations made in Greenland by the B. A. A. R. E. during the period August 1930 to July 1931, with special reference to visibility, the frequency and arising of gales, their probable origin, and optical phenomena.

**Mosby H.** - The Sea-Surface and the Air [*De maris aequore deque aëre*]. Scient. Res. Norw. Antarct. Exped. 1927-1928, 10. Oslo (1933). **a - 1598**

**Muratore G.** - L'atmosfera [*De atmosphaera*]. Riv. di Fis., Mat. e Sc., Nat. 7, 344-357. Napoli (1935). **a - 1599**

L'autore esamina in questo articolo i valori delle masse dell'aria, lo spessore dell'atmosfera, la divisione di questa in varî strati, la sua composizione alle varie altezze; quindi, dopo aver accennato ai varî mezzi di esplorazione dell'alta atmosfera, mostra come varia la densità e la temperatura dell'aria con l'altezza, e dà in ultimo brevi notizie sulla ozonisfera e sulla ionisfera.

**Nelson Frederich J.** - The Beaufort Wind Scale [*Modulus seu scala ventorum per* Beaufort]. U. S. Nav. Inst. Proc., LX, 381, 1546-1548. Annapolis (1934). **a - 1600**

Some criticism on the scale of Beaufort, which - according to the author - ought to be reviewed and corrected.

**Newnham E. V.** - Meteorology. [*Meteorologia*]. Sc. Progr., XXVIII, 112, 676-682. London (1934). **a - 1601**

Description of some new methods developed for studying the upper atmospheric eddies with a special reference to those over the Bay of Gibraltar. Some information on a new theory of Durst as to convectional disturbances in the form of cells travelling with the general wind. (See also Geophys. Mem., Nos 54 and 59, 1933).

**Nichols E. S.** - Time Limits of the Day As Affecting Records of Minimum Temperature [*De diei limitibus ac factoribus consideratis qui influunt in minimas inscribendas temperaturas*]. 4 tables. Monthly Weath. Rev., LXII, 9, 337-343. Washington D. C. (1934). **a - 1602**

Some considerations on the influence of the use of different times for the termination of the « day » which may considerably affect the record of minimum temperature, especially by producing numerous, and at times large variations in the minima recorder of the same date.

**Noto Hisashi** - Some Studies on Thunderstorms. Part I & II [*De tempestatibus. Pars Iª et IIª*]. 16 figs., 12 tables. Proc. Phys.-Math. Soc. XVI, 5, 177-199. Part I; Jap. Journ. Astr. & Geoph., XII, 1, 27-87, Part II. Nat. Res. Counc., Tokyo (1934). **a - 1603**

In the first part are reported the results of observations of lightnings and the minute changes appeared in the antenna-earth current. In the second the A. makes an attempt to apply the results of his investigations on the electrification of ultra-microscopic particles suspended in the atmosphere in order to find an explanation of the atmospheric potential gradient near the earth surface during rain and snowfalls.

**Nunnari R.** - Sul carattere evolutivo della pioggia a Messina [*De pluvia Messanae. Agitur de eius evolutione*]. Atti R. Acc. Peloritana, XXXVI, 153-166. Messina (1934). ( — ) Mem. R. Uff. Centr. Meteorol. e Geof., ser. 3, IV, mem. V. Roma (1934). **a - 1604**

Con i dati della quantità e frequenza della pioggia a Messina dal 1882 al 1931, applicando il metodo della perequazione, si ricerca la periodicità dei diversi andamenti di questo fattore; si stabilisce in seguito una relazione tra la quantità e frequenza annuale con il numero delle macchie solari e si ricavano i relativi indici di concordanza e di correlazione; si applica infine il metodo di previsione per estrapolazione e si calcolano i valori annuali e stagionale della quantità e frequenza della pioggia a Messina per l'anno 1934.

**Olch Isaiah** - Hurricane Security [*Securitas in tempestates paranda*]. U. S. Nav. Inst. Proc., LXI, 383, 28-30. Annapolis, Md. (1935). **a - 1605**

Some hints concerning adequate plans for material, communication and personnel security in the event of an hurricane. Collaboration between ships and shore activities. Suggestions for the « hurricane bill » which should be held prior to the hurricane season and upon receipt of any weather disturbance information.

**Petersen Helge** - Extrem hohe Temperaturen und Föhn in Grönland [*De maximis temperaturis deque vento* Föhn *nomine in Groenlandia*]. 3 Abb., 3 Tab., Meteorol. Ztschr., LI, 8, 289-296. Braunschweig (1934). **a - 1606**

Unter Beziehung auf einige sehr markante Beispiele von extrem hohen Temperaturen in Grönland sowie eine Föhnbeobachtung von de Quervain während seiner Durchquerung des Inlandeises in 1912 erörtert der Vf. hier die Möglichkeit diese Temperaturerhöhungen in einem gewaltigen Vorstoss von warmen atlantischen Luftmassen und in der dynamischen Erwärmung von dem Föhn zu suchen.

**Poisson Ch.** - Le front polaire et la formation des typhons [*Frons polaris ac typhones*]. C. R. Acad. Sc., CIC, 2, 159-160. Paris (1934). **a - 1607**

Etude des tempêtes suivies par l'auteur à Madagascar. L'auteur est conduit à envisager des fronts essentiellement temporaires et passagers. Ce 'front de mousson' existerait seulement au moment et dans la région où le courant derivé heurte la mousson près de la surface de la mer.

**Raftery T. J.** - Interpreting Barometric Pressure Changes [*Interpretatio variationum barometricarum quoad pressionem*]. 2 figs., 5 tables. U. S. Nav. Inst. Proc., LXI, 385, 358-360. Annapolis, Md. (1935). **a - 1608**

The different factors to be considered in an analysis of the causes of rate of pressure change: (1) the diurnal variation of the barometer, (2) the general barometric pressure distribution, and (3) the course and speed of the ship, if under way. Example showing how the various factors enter into an analysis of the pressure change, for the various conditions.

**Ramponi Francesco** - Contributo all'indagine intorno alla ciclicità degli afflussi meteorici [*Contributio in investigationes de cyclicitate affluctionum meteoricarum*]. Boll. Sind. Fasc. Ing. ed Arch. Tre Venezie, 1 fig., 8, 191-193. Trieste (1934). **a - 1609**

L'A. si propone di mettere in luce l'esistenza di ciclicità nei fenomeni naturali pluviometrici e di additare un possibile metodo di investigazione sull'argomento.

**Ray C. L.** - Relation of Tropical Cyclone Frequency to Summer Pressures and Ocean Surface-Water Temperatures [*Correlatio inter frequentiam cyclonum tropicalium, pressiones aestivas et oceani aquarum superficialium temperaturas*].

4 tables. Monthly Weath. Rev., LXIII, 1, 10-12. Washington D. C. (1935). **a - 1610**

Results of the working out of a correlation of summer and autumn tropical disturbances in the Caribbean Sea and Gulf of Mexico with spring–summer pressure deviations at San Juan, made at the beginning of the season 1934. In four tables data are gathered concerning (1) the correlation of tropical storm frequencies of the Caribbean and Gulf and spring–summer pressure at San Juan P. R. (1887-1934), (2) the mean frequency of tropical disturbances, of Caribbean and Gulf of Mexico, in relation to spring–summer pressure at San Juan P. R., (3) the annual frequency of tropical storms in the Caribbean and Gulf of Mexico, 1887-1934, and (4) the years of pressure excess of deficiency at San Juan P. R., during May, June, July, 1887-1934.

**Rein B.** - Le Service Météorologique [*Servitium meteorologicum*]. (En russe). 3 fig. Nachi Dostizh., 3, 170-172. Moskva (1934). **a - 1611**

Le rôle de l'Arctique dans la prévision du temps.

**Rodewald Martin** - Das norddeutsche Hochdruck-Gewitter vom 19. August 1932 [*Agitur de tempestate in Germania sept. die 19 mensis Augusti 1932 cuius origines ponendae sunt in pressionis atmosphaericae augmento*]. 1 Taf. Ann. d. Hydrogr., LXIII, 1, 23-29. Berlin (1935). **a - 1612**

1. Vorbemerkung: statistische Beziehung zwischen der Höhe des Luftdrucks und der Gewitterhäufigkeit an einem Ort; Seltenheit des in Frage kommenden Gewitters, das sich bei hohem Luftdruck ereignet hat. 2. Die Wetterlage am 19. August 1932. 3. Die Erscheinungsweise des Gewitters. 4. Der Aufbau des Gewitters nach den Wind- und Luftdruckvorgängen.

**Roncali A.** - Il tracciamento dei fronti nei bollettini meteorologici quotidiani europei [*De frontum delineatione in ephemeridibus meteorologicis europaeis*]. Aerotecn., 2 fig., 11, 1268-1273. Roma (1934). **a - 1613**

Sono state confrontate le posizioni attribuite ai fronti dai vari servizi meteorologici europei rivelandone le divergenze e discutendone le relative cause.

**Rückert J.** - Ausbau und Ausnutzung des Ozeanwetterberichtes [*Elaboratio et valor alicuius ephemeridis meteorologici oceanici*]. 1 Tab. Seewart, III, 6, 270-275. Hamburg (1934). **a - 1614**

An Hand praktischer Beispiele erläutert Vf. den Begriff « Meteorologische Navigation », mit besonderer Berücksichtigung der Darstellung der Wetterverhältnisse im Nordatlantik, und zwar im Raume zwischen 40 und 63° Breite.

**Sandström J. W.** - Ueber den Einfluss des Golfstromes auf den Luftdruck und die Luftbewegung in Europa im Winter [*De Gulf Stream eiusque influentia in aëris pressionem nec minus in aëris motus hieme perdurante in Europa*]. 2 Abb., 2 Taf. Meteorol. Ztschr., LI, 10, 361-369. Braunschweig (1934). **a - 1615**

Diese Untersuchung bildet teilweise die direkte Fortsetzung einer früheren Arbeit über die Beziehung der Lofotenwindrichtung zur Wintertemperatur in Europa (Meteorol. Ztschr. 11, 401, 1926). Berücksichtigung des Luftdruckunterschiedes zwischen Island und Azoren und der Windrichtung auf Lofoten. Vergleich unter diesen Faktoren und ihre gegenseitige Einwirkung. Die Hauptwindrichtungen auf den Lofoten und die daraus folgenden verschiedenen Wettertypen sind in 2 Tafeln mit 144 Abbildungen wiedergegeben.

**Scharonow W.** - Eine neue Methode zur Messung der Lufttrübung und der Sichtbarkeit [*Methodus nova ad visum opacitatemque atmosphaericam mensurandos*]. (In Russ. & Deutsch.). 1 Abb. C. R. Acad. Sc. U. R. S. S., III, 7, 500-505. Léningrad (1934). **a - 1616**

Prinzip, Ausführung, und Funktionieren eines vom Vf. erbauten Apparates, des « Lufttrübungsmessers », welcher zur Messung von Lufttrübung und Sichtbarkeit entfernter Objekte gebraucht wird. Befriedigende Ergebnisse der praktischen Anwendung des Apparats.

**Scherhag R.** - Der aerologische Ausbau des « Täglichen Wetterberichts » der Deutschen Seewarte [*Ephemeris meteorologica ad Observatorium Maritimum Germanicum pertinens. Agitur de eius progressione aerologica*]. 1 Tab. Ann. d. Hydrogr., LXIII, 5, 216-218. Berlin (1935). **a - 1617**

Bericht über die am 1. September 1934 erfolgte Umgestaltung des « Täglichen Wetterberichts » der Deutschen Seewarte zum Ziel einer wesentlichen Erweiterung des aerologischen Inhalts, mit der Hinzunahme von zwei Höhenkarten und einer Vermehrung auf acht Seiten.

**Schnittger W. & Linke H.** - Ballontheodolite zur Beobachtung auf festem Boden und auf Schiffen [*Theodolites pro sphaericis quibus utitur ad observationes peragendas in Terra et in navibus*]. Ztschr. f. Instr. kunde, LIV, 9, 311-317. Berlin (1934). **a - 1618**

Beschreibung von zwei neuen Theodoliten für normale Messungen auf festem Bodem und für Schiffsbeobachtungen. Bau, Transportmöglichkeiten, Gebrauchsweise und Anwendungen der beiden Theodoliten. Der Schiffsballon-Theodolit macht es möglich, auch auf See Beobachtungen über Windrichtungen und -geschwindigkeit mittels Pilotballonverfolgung durchzuführen.

**Semmelhack W.** - Klimatographische Witterungsschilderung. Nr. 36: Seeverkehrsweg: Südwesteuropäisches Gebiet des Atlantischen Ozeans (Westportugiesisches Meeresgebiet) [*Descriptio climatographica condicionum meteorologicarum. N° 36. Cursus maritimus. Regio sud-orientalis Oceani Atlantici. Sectio maritima Lusitaniae Occid.*]. 2 Karten. Ann. d. Hydrogr., LXIII, 5, 213-214. Berlin (1935). **a - 1619**

Aus der Sammlung des überseeischen meteorologischen Dienstes der Deutschen Seewarte. Verlauf der Witterung im März auf dem Seewege von Porto nach den Berlenga-Inseln. Beobachtungstag: der 6. März 1935.

**Semmelhack W.** - Klimatographische Witterungsschilderung. Nr. 39: Seeverkehrsweg: Westliches Mittelmeer [*Descriptiones meteorologicae climatographicae. N° 39. Cursus maritimus. Mare Mediterraneum occid.*]. 2 Kart. Ann. d. Hydrogr., LXIII, 6, 253-255. Berlin (1935). **a - 1620**

Aus der Sammlung des überseeischen meteorologischen Dienstes der Deutschen Seewarte. Verlauf der Witterung im März im südspanischen Meeresgebiet. Beobachtungstag: der 21. März 1935.

**Simpson G. C.** - Arctic Meteorology [*Meteorologia arctica*]. Nature, CXXXV, 3402, 52-54. London (1935). **a - 1621**

Comment of the work by H. U. Sverdrup, « The Norwegian North Polar Expedition with the « Maud », 1918-1925, scientific Results », vol. II, Meteorology (Geofys. Inst. Bergen, in co-operation with other institutions), which emphasizes the importance of the « Maud » sojourn in the Arctic, where she was engaged in the same enterprise of scientific research, and her scientific results were no less valuable than those obtained by the « Fram » during Nansen's drift across the north polar basin.

**Slocum Giles** - Regression Equations Analyzing the immediate Antecedents of Temperature Anomalies in Straits of Florida Surface Waters [*De aequationibus quae perpendunt abnormitates thermicas aquarum superficialium in fretis regionis Floridae quoad antecedentes earumdem abnormitatum*]. 1 fig., 2 tables. Monthly Weath. Rev., LXII, 11, 411-415. Washington D. C. (1934). **a - 1622**

Claiming that the causes of variations in the Straits of Florida water-surface temperatures are many and complex the A. only deals with complexes of several basic elements considered as single « causes ». Subject to this grouping, practically all of the variations in the surface temperatures of the Straits may be expressed in terms of simple, linear, algebraic functions of the combined influence of three numerical factors, which are: (1) the contemporary local air temperature, (2) the water temperature in the eastern Gulf of Mexico, (3) the contemporary percentage of possible sunshine at Key West.

**Slocum Giles** - Sea-Surface Temperature Summary for the Yucatan Channel, 1912-33 [*De temperaturis ad maris superficiem Canalis* Yucatan. *Compendium*]. 1 table. Monthly Weath. Rev., LXII, 11, 425. Washington D. C. (1934). **a - 1623**

Table of the monthly mean sea-surface temperatures; the area from which the observations were taken embraces five 1° squares.

**Smith H. T.** - The History and Development of Organized Marine Meteorology. I The First Organisation. II Middle Period. III Modern Development. [*De meteorologia nautica. Historia et progressus*]. 9 figs. Mar. Obs., XII, 117, 19-22; 118, 65-67; 119, 107-110. London (1935). **a - 1624**

**Stevens W. R.** - The Tropical Disturbance of August 26-31, 1934 [*De perturbatione tropicali a die 26 ad diem 31 mensis Augusti 1934*]. Monthly Weath. Rev., LXII, 9, 344. Washington D. C. (1934). **a - 1625**

Disturbed atmospheric conditions observed in connection with the storm of the morning of August 26, 1934 in the north-central Gulf of Mexico; movement of the center of the disturbance: observed wind-velocities and lowest pressure.

**Størmer Carl** - Measuring of Aurorae with very long Base Lines [*De auroris dimensis quae bases habeant perlongas*]. 16 fig., tabl., 2 pls, Geofys. Publ., XI, 3, 1-15. Oslo (1935). **a - 1626**

From the measurements undertaken in southern Norway during these last few years it is seen that, primarily, the use of very long base lines can give exact measurements even for aurora forms with badly defined outlines. For well defined aurora forms the error in the measurements with such long base lines can be less than one hundredth of the height.

**Tannehill Ivan Ray** - The Hurricane [*De tempestate*]. Maps, diagrs. U. S. Govmt. Print. Off., U. S. Dpt. Agric. Miscell. Publ. 195, 14 pp. Washington D. C. (1934). **a - 1627**

**Tóth Géza** - A levegötenger az oceanok felett. [*De atmosphaera oceanorum*]. (En hongrois). 4 ill. A Tenger, XXV, 1/4, 26-32. Budapest (1935). **a - 1628**

**Vegard L. & Tønsberg E.** - Continued Investigations on the Temperature of the Upper Atmosphere determined by means of Bands appearing in the Auroral Spectrum [*De investigationibus continuatis in temperaturam atmosphaerae superioris filorum peractis auxilio qui sunt in spectro aurorae*]. 5 figs., 5 tabl., Geofys. Publ., XI, 2, 1-14. Oslo (1935). **a - 1629**

Results of investigations undertaken from February 1933 to the end of March 1934 at the Auroral Observatory, Tromsö. The spectrograms. Results of the temperature measurements. Discussion of the results.

**Vestine E. H.** - Noctilucent Clouds [*Nubes quae noctu fulgent*]. Journ. R. Astr. Soc. Canada, XXVIII, 249-272; 303-317. Toronto (1934). **a - 1630**

**Volochine M. F.** - Bibliographie actinométrique. [*Bibliographia actinometrica*]. Nombr. fiches. Lithogr. Off. Nat. Météor. France, Paris (1934). **a - 1631**

M. F. Volochine qui étudie les questions d'actinométrie à Trappes pour le compte de l'Office National Météorologique de France a centralisé et préparé à la publication ces fiches de la bibliographie actinométrique, dont la rédaction a été commencée par suite d'une initiative prise par l'union géophysique et géodésique internationale, étant donné qu'un effort considérable se porte depuis quelques années vers les recherches actinométriques dont l'importance est fondamentale en physique atmosphérique.

**Wagner Fritz** - Ueber Temperaturen am und im Schiff. Beobachtungen auf dem Flugzeughilfsschiff D. « Westfalen » [*De temperaturis circa navem et in navi. Observationes navis* « D. Westfalen » *quae aëroplana fert*]. Ann. d. Hydrogr., LXIII, 1, 38-40. Berlin (1935). **a - 1632**

Nach einigen Vorbemerkungen über die Schwierigkeiten, die mit der Messung der wahren Lufttemperatur an Bord von Schiffen heim hohem Sonnenstand verbunden sind, berichtet Vf. über einige Messungen der Temperatur von Schiffsteilen mit einer einfachen, behilfsmässigen Methode an Bord des Flugzeughilfschiffes D. « Westfalen », sowie über die Beeinflussung der Temperatur von der das Schiff unmittelbar umgebenden Luft durch die Schiffstemperatur.

**Willet Hurd C.** - Routine Daily Preparation and Use of Atmospheric Cross Sections [*Comparatio cotidiana atque utilitas percipienda a sectionibus atmosphaericis transversis*]. 6 figs. Monthly Weath. Rev., LXIII, 1, 4-7. Washington D. C. (1935). **a - 1633**

Description of a method of presenting a unified picture of atmospheric conditions in the vertical, corresponding to the two dimensional analysis of the surface data, called « atmospheric cross-sections », employed to represent the separate aerological soundings individually on one of the standard forms of diagram, elaborated at the Massachusetts institute of Technology. The method allows to get a two-dimensional picture, along a verticale plane containing a maximum number of observations, of the air mass and frontal structure of the atmosphere, and of the horizontal movement. From the horizontal air movement, and the frontal slopes, it is also possible to draw conclusions about vertical velocities.

**Wirtz C.** - Sonnenstrahlung, atmosphärische Extinktion und Strahlungsfilter. Nach Beobachtungen 1932 und 1933 an der Nordseeküste von Schleswig-Holstein [*De radiatione solari, de extintione atmosphaerica deque filtro irradiationis. Ex observationibus A. 1932 et A. 1933 in litoribus*

Schleswig-Holstein *Maris Nordici*]. 18 Tab. Ann. d. Hydrogr., LXIII, 2, 66-83. Berlin (1935). **a - 1634**

Es wurden sowohl die Gesamtstrahlung der Sonne als auch die Teilstrahlung in verschiedenen Wellenlängenbereichen beobachtet. Hauptziel waren die Extinktionsvorgänge der irdischen Atmosphäre. Himmelsstrahlung in nächster Nachbarschaft der Sonne; ihr Beitrag zu der auf das Aktionometer wirkenden Strahlung. Darstellung der Ergebnisse mit Hilfe des Trübungsfaktors. Aufstellung einer thermischen Extinktionstafel. Untersuchungen und Bemerkungen über Farbgläser und Absorptionsgitter. Ausser der im vorliegenden Aufsatz behandelten Sonnenstrahlung wurden noch Beobachtungen über Kimmtiefe, Himmelsfarbe und Sichtweite angestellt.

**Wirtz C.** - Zur Helligkeit und Farbe des klaren Himmels an der Nordseeküste Schleswig-Holsteins [*De coeli fulgore alboque colore in litoribus* Schleswig-Holstein *Maris Nordici*]. 2 Tab. Ann. d. Hydrogr., LXIII, 4, 170-173. Berlin (1935). **a - 1635**

1. Gegenstand der Untersuchung und Instrumentelles. 2. Die Beobachtungen der Zenithelligkeit. 3. Ihre gesetzmässige Abhängigkeit von der Zenitdistanz der Sonne. 4. Die Himmelsbläue im Zenit. 5. Ein Weg zur objektiven Messung der Himmelsfarbe.

**Wittenbecher Johannes** - Die modernen Seewetterberichte [*De hodiernis ephemeridibus meteorologicis nauticis*]. 2 Taf. Seewart, III, 6, 267-270. Hamburg (1934). **a - 1636**

Bericht über die Umgestaltung und den neuen Ausbau des von der Deutschen Seewarte ausgeübten Wetterberatungsdienstes für die Schiffahrt.

**Wright H. L.** Visibility and Atmospheric Suspensoids at Kew Observatory [*Visus et suspensoides atmosphaerici in Observatorio ad* Kew *pertinente*]. 4 tables. Quart. Journ. R. Meteorol. Soc., LXI, 258, 71-80. London (1935). **a - 1637**

Results of a series of observations of the number of smoke particles and the number of condensation nuclei in the atmosphere and their association with the distance of vision and their relation to visibility, carried out at Kew Observatory. In the tables the results of observations are summarized according to visibility and concentration of nuclei, and to visibility and concentration of particles. The annual variation of both these factors is also dealt with. Discussion of the paper at the meeting of the R. Meteorological society.

**Wright H. L.** - Small Ions and Condensation Nuclei at Eskdalemuir [*De parvis jonis atque nucleis condensationis in* Eskdalemuir]. 1 fig., 1 table. Quart. Journ. R. Meteorol. Soc., LXI, 258, 93-95. London (1935). **a - 1638**

Brief account of a series of observations made at Eskdalemuir during the year 1932 with a view to examine the relation between n, the number of positive small ions per c. c., and N, the number of nuclei per c. c. Despite their crudity these observations indicate in no uncertain manner that visibility is a factor which ought to be taken into account in studies of the problem of atmospheric ionisation.

**Wundt W.** - Die Lage der Kalmen [*De malaciis earumque positione*]. 3 Abb. Meteorol. Ztschr., LI, 2, 49-53. Braunschweig (1934). **a - 1639**

Die Lage der Kalmen im Sinne von Gebieten mit periodisch aufsteigenden Luftströmen knüpft sich an Trog- und Firstlinien des Luftdruckes, welche die ganze orde umziehen und während des Jahres in meridionaler Richtung wandern. Bei der Gestaltung dieser Linien spielt ausser dem Gürtel stärkster Erwärmung, der durch die grössere Landmasse der Nordhalbkugel bedingt wird, eine astronomische Ursache mit. Diese liegt in dem Umstande, dass etwa 2 ½° nördlich des Aequators eine Linie kleinster Jahresschwankung der Wärmezufuhr existiert. Diese ist durch die zeitliche Lage des Perihels bestimmt und bezeichnet die Stelle, wo für den Nordwinter die kürzere and flachere Bestrahlung durch die grössere Nähe der Sonne ungefähr ausgeglichen wird.

**Zalomanov V.** - L'inversion de la température dans l'Antarctique [*De inversione temperaturae in Oceano Antarctico*]. (En russe). Meteorol. Vestn., 1/3, 63. Leningrad (1934). **a - 1640**

**Comissão de Cartografia** - Valores normais dos principais elementos meteorologicos dos observatorios e posto das colonias [*Valores normales quoad praecipua elementa meteorologica in observatoriis et stationibus coloniarum*]. Quadr. Anais Meteorol. Colon., 1932, XIX, 4-68. Coimbra (1934). **a - 1641**

Resumo mensal e anual das observações meteorológicas dos observatórios e postos das colónias portuguesas.

**Comissão de Cartografia** - Anais Meteorológicos das colónias relativos a 1932. Volume XIX [*Annales meteorologici Coloniarum A. 1932 Volumen XIX*]. Quadr. Ministério d. Colón., 3-379. Coimbra (1934). **a - 1642**

Mapas das observações meteorológicas dos observatórios e postos das colónias portuguesas, Cabo Verde, Guiné, S. Tomé e Principe, Angola, Moçambique, Companhia de Moçambique, Companhia de Zambézia, Estado da India, Macau, Timor, no ano del 1932.

**Deutsche Seewarte** - Zur Statistik der Stürme an der deutschen Küste [*De tempestatum statistica in litoribus Germanicis*]. Tab., 37 S., 1 Jahrg.: Beobachtungsjahr 1933. Hamburg (1934). **a - 1643**

Täglich höchste Windstärke und zugehörige Windrichtung an den deutschen Küstenstationen und auf deutschen Feuerschiffen. (S. Besprech. v. P. Heidke, «Ann. d. Hydrogr.», LXIII, 3, 125, 1935).

**Egypt Physical Department** - Meteorological Report for the Year 1931 [*Relatio meteorologica pro A. 1931*]. xiii + 191 pp., Min. Publ. Works, Phys. Dpt. Cairo (1934). **a - 1644**

Values of the magnetic elements at Helwan Observatory for 1931.

**Faculdade de ciências da Universidade de Lisboa** - Anais do Observatório Central Meteorologico « Infante D. Luiz ». II Parte [*Annales Observatorii Meteorologici Centralis* Infante D. Luiz. *Pars II*ª]. Mapas & quadr. Observ. Estaç. Meteorol., 1933, LXIV, 1, 3-137. Lisboa (1934). **a - 1645**

**Great Britain - Meteorological Office** - The Observer's Handbook [*Liber manualis ad usum Observatorum*]. Tables, graphs, photos. Met. Off., H. M. Stat. Off. London (1934). **a - 1646**

This book is the latest addition to a series, whose earlier volumes were called « Instructions for Meteorological Observers ». It is divided into three main sections: I. Instructions for making routine observations at the normal climatological stations, in addition to notes on the care and exposure of instruments. II. Authomatic registering of instruments that are not included ordinarily in the usual station equipment. III. Tables for the reduction of barometric data. An appendix contains cloud photographs.

**Great Britain - Meteorological Office** - Annual Report of the Director of the Meteorological Office Presented by the Meteorological Committee

to the Air Council for the Year Ended March 31, 1934 [*Relatio annua a Directore Officii Meteorologici redacta, quae a Comitato Meteorologico relata fuit ad Consilium pro Aëre anni qui exitum habuit die 31 mensis Martii 1931*]. 60 pp. H. M. Stat. Off. London (1934). **a - 1647**

Brief reports on Kew, Eskdalemuir, Aberdeen, Lerwick, and Valentia observatories and on the International Polar Year 1932-1933.

**Great Britain - Meteorological Office** - Monthly Frequency Tables, Being Summaries of Observations of Horizontal Visibility [*Tabulae frequentiae menstruae summarium observationum quoad visum horizontalem repraesentantes*]. Tables. H. M. Stat. Off. London (1934). **a - 1648**

**Great Britain - Meteorological Office** - A Handbook of Weather, Currents and Ice for Seamen [*Coeli condiciones, currentiae atque glacies. Liber manualis ad usum nautarum*]. H. M. Stat. Off. London (1935). **a - 1649**

This book replaces obsolete text books.

**Kommission für die Erforschung der Freien Atmosphäre** - Protokolle der Sitzungen in Friedrichshafen, 30. August bis 4. September 1934 [*Acta scripta consessuum in* Friedrichshafen, *a die 30 mensis Augusti ad die 4 mensis Novembris A. 1934*]. Secr. Organ. Météorol. Int., 21. Leyden (1935). **a - 1650**

**Marine Observer** - Ships' Wireless Weather Signals, Chart of the World [*Tabula omnium signalationum marconigraphicarum meteorologicarum a navibus*]. 1 chart. Mar. Obs. XII, 117, app. London (1935). **a - 1651**

**Ministero dell'Aeronautica - Ufficio Presagi** - Sondaggi aerologici ed osservazioni delle nubi, eseguite nei giorni stabiliti dalla Commissione internazionale dell'anno polare [*De scandaliis aërologicis deque observatis nubibus, diebus peractis a Commissione internationali pro anno polorum constitutis*]. (26 novembre 1932-XI). 81 pp. Istituto Poligrafico dello Stato, Roma (1934). **a – 1652**

**Observatorio Central Meteorologico « Infante don Luiz »** - Resumo mensal de observaçóes meteorologicas feitas no continente e arquipélago da Madeira em 1934 [*Compendium menstruum observationum meteorologicarum quae A. 1934 in Continente et in archipelago insularum* Madeira *peractae fuerunt*]. Quadr., Ano XXIII, 2, 4 pp. Lisboa (1934). **a - 1653**

Resumo de observaçóes meteorológicas no mês de Janeiro e Fevereiro 1934.

**Observatorio Central Meteorologico « Infante don Luiz »** - Anais. [*Annales Observatorii Meteorologici Centralis* Infante don Luiz]. 130 pp., LXV, 1. Facultade de Ciencias de Universidade. Lisboa (1935). **a - 1654**

II parte. Observaçóes das estaçoes meteorologicas no ano de 1934.

**Oficina Meteorologica de Chile** [*Annuarium meteorologicum A. 1932*]. Tav. Min. Def. Nac., Publ. XLV, 8-160. Santiago (1935). **a - 1655**

Introducción. Resumen meteorológico de Arica, Iquique, Antofagasta, Refresco, Taltal, Potrerillos, Caldera, Serena, Punta Tortuga, Ovalle, Zapallar, Jahuel, Los Andes, Juncal, Caracoles, Quillota, Punta Angeles, Santiago, Jan Fernández, El Teniente, San Fernando, Curicó, Constitución, Talca, Punta Carranza, Linares, Cauquenes, Punta Tumbes, Concepción, Isla Santa Maria, Lebu, Angol (El Vergel), Contulmo, Traiguean, Isla Mocha (Este) Lonquimay, Temuco, Punto Dominguez, Valdivia, Punta Galera, Rio Bueno, Frutillar, Puerto Montt, Maullin, Punta Corona, Isla Guafo, Puerto Aysen, Cabo Raper, San Pedro, Punta Dungeness, I. Evangelistas, Magallanes, Cabo San Isidro. – Resumenes anuales. – Resumenes Speciales. Lluvias diarias. – Resumenes anuales – Sondajes aereológicos. Fe de erratas.

**Republica del Peru. Ministerio de Fomento. Direccion de Agricultura y Ganaderia** - Servicio Meteorológico Nacional [*Servitium Meteorologicum Nationale*]. Tab. Bol. Serv. Met. Nac., V, 5, 6, 7, 8, 9, 10, 11, 12. Lima (1933). **a - 1656**

Resùmen de las observaciónes de Mayo, Junio, Lulio, Agosto, Setiembre, Octubre, Noviembre y Diciembre 1933 de lo Observatorio Central de Lima.

**Republica del Peru. Ministerio de Fomento. Direccion de Agricultura y Ganaderia** - Servicio Meteorológico Nacional [*Servitium Meteorologicum Nationale*]. Tab. Bol. Serv. Met. Nac., VI, 1, 2, 3, 4, 5 & 6. Lima (1934). **a - 1657**

Resùmen de las observaciónes de Enero, Febrero, Marzo, Abril, Mayo y Junio 1934 de lo Observatorio Central de Lima.

**Statens Meteorologisk - Hydrografiska Anstalt** - Månadsöversikt över väderlek och vattentillgång jämte anstaltens årsberättlse [*Ephemeris menstrua de condicionibus meteorologicis et aquae livello. Relatio annua a statione Suetia pro meteorologia et hydrographia redacta*]. Tabl. Årsbok, XIV, 1, 1934, 1 - 89. Stockholm (1935). **a - 1658**

Données pour chaque mois concernant les conditions météorologiques, vent, pression d'air, température, conditions de glace dans les ports, aurore boréale. Rapport annuel: bulletins météorologiques, cartes synoptiques pour l'Atlantique nord-oriental, rapports sur les conditions de glace pour la Mar Baltique, le Skagerak et le Hattegart; sondages par ballons sondes; publications.

**U. S. Weather Bureau** - Weather Code for West Indian Stations, 1934 [*Codex meteorologicus ad usum Stationum Indiarum Occid.*]. Tables, 11 pp. (mimeographed). Washington D. C. (1934). **a - 1659**

**E. T.** - Les vents de l'Antarctique [*De ventis Oceani Antarctici*]. (En russe). Météor. Vestn., 1/2, 63. Leningrad (1934). **a - 1660**

**McD. W. F.** - Waterspout over Chesapeake Bay, September 12, 1934 [*Columna marina in baja* Chesapeake *die 12 mensis Septembris A. 1934*]. Monthly Weath. Rev., LXII, 9, 351. Washington D. C. (1934). **a - 1661**

Abstract of a report by J. J. Murphy, in charge of Weather Bureau Office, Norfolk, Va., on a waterspout observed over Lynnhaven Road, in extreme lower Chesapeake Bay, about a mile off shore, at 10 and 12 miles east-northeast of Norfolk.

**W. E. H. (Hurd W. E.)** - Thunderstorms at Sea [*De tempestatibus in mari*]. Monthly Weath. Rev., LXII, 10, 389. Washington D. C. (1934). **a - 1662**

Brief account of two electrical storms, encountered by two vessels in the ocean in 16°20′N., 99°58′W during the night of October 2-3, 1934 and in 18°31′N., 104°15′W. in the morning of October 4, 1934.

**An.** - Wireless Weather Signals [*Signalationes meteorologicae marconigraphicae*]. 1 fig., 23 tables. Mar. Obs., XII. London (1935). **a - 1663**

See all the numbers of the year.

**An.** - The Disposition of the British Voluntary Observing Fleet [*Ratio classis anglicae voluntariae constituendae ad observationes ducendas*]. 1 chart. Mar. Obs., XII, 120, 135-136. London (1935). **a - 1664**

Distribution of the fleet. Work done by it. Chart of the world indicating the number of British observing ships using the different trade routes on 11th July, 1935.

**An.** - Données climatologiques pour la région de la dérive du camp de Schmidt [*Dati climatologici ad regionem declinantem pertinentes in qua castra exploratoris* Schmidt *constituta erant*]. (En russe). Meteor. Vestn., 8/9, 282. Leningrad (1934). **a - 1665**

**An.** - Sounding Balloons and Weather Conditions [*De sphaericis scandaliatoribus deque coeli condicionibus providendis*]. Science Suppl., LXXXI, 2105, 8. New York (1935). **a - 1666**

Short note on experiments carried out by Arthur E. Bent at the Blue Hill Observatory. This method is of special importance for coastal points where ordinary sounding balloons usually get lost at sea.

**An.** - Der Seeobsdienst in den Monaten Oktober, November, Dezember 1934 [*Servitium observationum maritimarum mensibus Octobri, Novembri et Decembri A. 1934*]. Seewart, IV, 1, 21-22. Hamburg (1935). **a - 1667**

*a*) Handelsschiffe, *b*) Fischdampfer, *c*) Ostsee-Seeobsdienst.

## Glacies marina.

**Altberg V.** - Sur la glace du fond [*De glacie in fundo marino*]. (En russe & français). C. R. Acad. Sc. U. R. S. S., II, 3, 168-172. Léningrad (1934). **a - 1668**

Etant donné que les résultats des études faites sur la nature de la glace de fond sous la direction de l'A. à l'Observatoire Central de Géophysique et à l'Institut Hydrologique, ont déjà été publiés (v. les publications de ces deux institutions), l'A. dans la présente note donne un aperçu succinct sur l'essence de ce phénomène, sur les méthodes appliquées à son étude et un bref résumé des résultats obtenus. Le système élaboré par l'A. permet de formuler des pronostics précis sur la quantité des glaces du fond dans les divers bassins.

**Batchmanov B.** - Sur la question de la terminologie des caractéristiques de navigabilité des glaces et des conceptions liées à ces dernières [*Quaestio de nomenclatura quoad navigationis per glacies praecipuitates et res quae ad glacies pertinent*]. (En russe). Ghidrogr. i Korablev., 1, 113-115. Leningrad (1934). **a - 1669**

**Ermolaev M. M.** - The Work of the Glaciological Station in Russian Harbour [*De operibus peractis a statione glaceologica in Portu Russico*]. (In Russ. & Engl.). Bull. Arct. Inst., 2, 50-55, 93-98. Léningrad (1934). **a - 1670**

Results of the work of the glaciological station established in September 1933 in Russian Harbour, on the western coast of the northern island of Novaja Zemlja (See: « Bull. Arct. Inst., 6, p. 125, 1932; 6/7, p. 163, 1933), whose chief object was the study of the glacial cover of the district and its influence upon the climate of the adjacent Arctic area, as well as the investigation, by means of seismic methods, of the high parts of the stratosphere. In the present article a short account is given on the expedition's work in geophysics, actinometry, and geology.

**Fakidov Ibrahim** - Vibrations of the Ice-Cap of Polar Seas [*De vibrationibus in glacie marium polarium*]. Nature, CXXXIV, 3388, 536-537. London (1934). **a - 1671**

In the course of the Polar expedition on the S. S. Cheliuskin in the Chukchi Sea (1933-34) the A. noticed and measured these vibrations of the ice-cap, which proved to be caused, for the most part, by the wind.

**Jurva R.** - Yleiskatsaus talven 1933-34 jääsuhteisiin [*Relatio de glaciei condicionibus hieme 1933-34*]. (In Finn., dtsch. Rés.). 20 Kart. Tab. Merentutk. laitoks. Julk. 97, 71 pp. Helsinki (1935). **a - 1672**

Beobachtungen der Eisverhältnisse an den Küsten Finnlands: allgemeiner Verlauf des Eiswinters, die erste Eisbildung, die Dicke des Eises, Eis- und Schiffahrtsverhältnisse in den Häfen. Die monatlichen Mittelwerte der Lufttemperatur und der Wassertemperatur sind in Tabellen wiedergegeben.

**Kissler F.** - Eisgrenzen und Eisverschiebungen in der Arktis zwischen 50° West und 105° Ost im 34-jährigen Zeitraum 1898-1931 [*De limitibus amotionibusque glaciei in regione Arctica inter 50° W et 105° O. a 1898 ad 1931*]. Gerl. Beitr. Geophys., XLII, 12-55. Leipzig (1934). **a- 1673**

**Laktionov A.** - The Voyage of the Hunting Vessel « Nerpa » in 1933 [*De navigatione navis venatoriae* « Nerpa » *A. 1933*]. (In Russ. & Engl.). 1 map. Bull. Arct. Inst., 2, 64-66, 105-107. Leningrad (1934). **a - 1674**

Account of the cruise of the hunting vessel « Nerpa » in the Kara Sea and the vicinity of Franz-Joseph Land from August 4th to October 9th 1933, with particalar regard to observations on ice-conditions of the waters crossed.

**Mangor M. C.** - The State of Ice in the Arctic Seas [*Stratus glaciatum in maribus regionum arcticarum*]. Nautisk-Meteorol. Aarbog 1934. København (1935). **a - 1675**

**Maurstad Alf** - Atlas of Sea Ice [*Atlas de glacie marina*]. 40 figs. on 10 pls. Geof. Publ. Norske Vidensk. Akad. X, 11, 5-17. Oslo (1935). **a - 1676**

Introduction. I. General remarks. II. Development of sea-ice and ice terminology: 1. Forms of newly frozen ice; 2. Winter-ice; 3. Polar-ice; 4. Some other terms. III. Terms for dimensions, quantity and arrangement of the ice: *A*. Dimensions of the ice; *B*. Amount of ice; *C*. Arrangement of ice; *D*. Opening in the ice; *E*. Ice blink and water sky. IV. Glacier ice in the sea. V. On the freezing and melting and on the properties of the ice in the sea. Bibliography. 40 ice pictures with descriptions.

**Morozov S.** - Le chemin à travers les glaces [*Iter per glacies*]. (En russe). Ill., 1 carte h. t. 101 pp., « Molod. Gvard. », Bibl. Exped. i Pout., Moskva (1934). **a - 1677**

Récit de la lutte pour l'établissement de la Voie Maritime du Nord. Bibliographie.

**Oellrich H.** - Die Eisverhältnisse des Winters 1933/34 in den ausserdeutschen europäischen Gewässern [*De glaciei condicionibus a 1933 ad 1934 in maribus europaeis extragermanicis*]. 7 Tab., 2 Taf. Ann. d. Hydrogr., LXII, 12, 478-481. Berlin (1934). **a - 1678**

Uebersicht über den Verlauf der Eis–und Schiffahrtsverhältnisse in Holland, Dänemark, Norwegen, Schweden, Finnland und Lettland während des Winters 1933–34, welche sich den seit 1906 (Winter 1903–04) in « Ann. Hydr. », veröffentlichten Zusammenstellungen anschliesst, Als Unterlage diente wieder hauptsächlich das von den ausländischen Anstalten übermittelte Material.

**Oellrich H.** - Die Eisverhältnisse an den deutschen Küsten einschliesslich Danzig und Memel im Winter 1934–35 [*De glaciei condicionibus in litoribus germanicis,* Danzig *et* Memel *inclusis, hieme 1934–35*]. 3 Tab. Ann. d. Hydrogr., LXIII, 6, 246-249. Berlin (1935). **a - 1679**

31. Fortsetzung der seit 1904, nach Schluss einer jeden Winter in « Ann. Hydr. », veröffentlichten Darstellung der Eis– und Schifffahrtsverhältnisse an den deutschen Küsten. Tabelle I zeigt den Verlauf der Mitteltemperatur und ihre Abweichung vom langjährigen Mittel an vier ausgewählten Beobachtungsstellen, Tabelle II und III geben eine Uebersicht über die Eisverhältnisse an der deutschen Nord – und Ostseeküste.

**Peskov N.** - La couche de glace de la Mer Polaire Septentrionale [*De tegumento glaciato maris Polaris Sept.*]. (En russe). 1 fig. Khoz. Sew., 4, 38-46. Arkhangheljsk (1934). **a - 1680**

**Peskov N.** - Construction de navires pour la navigation dans les glaces [*De navibus aedificandis ad navigandum per glacies*]. (En russe). 4 fig. Vodn. Transp., 6, 25-26. Moskva (1934). **a - 1681**

**Simons Rodger L.** - Ice Breakers [*Navis glaciei ruptrix*]. 8 ills. U. S. Nav. Inst. Proc., LXI, 383, 41-53. Annapolis, Md. (1935). **a - 1682**

Historical account of the development of ice breakers. The first of such crafts built in 1851. Description of the first more important ice-breakers put into service: the « Fram » of Fritjof Nansen, the « Ermak » and « Admiral-General Apraksin » built on plans elaborated by Admiral Makaroff. Main characteristics of the ice-breakers. The destiny of the « Sibirjakov ». The design of American models of ice-breakers which represents an interesting intermediary step from the ordinary commercial vessel to the specialized ice-breaker. The new Russian ice-breakers. The « Ymer », the last elaborated expensive ice breaker recently completed on order of the Swedish Government.

**Wüst Georg** - Neue Anschauungen über Eisberge [*Opiniones novae de molibus glaciatis*]. 1 Tab. Peterm. Mitt., LXXX, 6, 175. Gotha (1934). **a - 1683**

Der Vf. sucht hier die jetzigen Anschauungen in Bezug auf die grosse Eintauchtiefe sowie den thermischen Effekt der Eisberge zu widerlegen. Eine Tabelle direkter Messungen der Eintauchtiefe von arktischen Eisbergen (nach Smith 1931) bestätigt diese Ueberlegungen.

**Marine Observer** - Ice Chart of the Southern Hemisphere. January, February and March [*Tabula glaciei in haemisphaerio merid. Mensibus Januario, Februario, Martio*]. 1 chart. Mar. Obs., XII, 117, append. London (1935). **a - 1684**

**U. S. Treasury Dpt. Coast Guard** - International Ice Observation and Ice Patrol Service in the North Atlantic Ocean [*De observata glacie ab omnibus gentibus. Agitur etiam de navibus vigilantibus per Mare Atlanticum Sept.*]. U. S. Govmt. Print. Off. Washington (1934). **a - 1685**

**An.** - Un brise-glace d'une puissance de 12.000 HP [*Navis glaciei ruptrix, potentia praedita 12.000 HP*]. Bull. Arct. Inst., 6/7, 268. Leningrad (1934). **a - 1686**

Notice sur le projet de construction d'un brise-glace de 12.000 HP par l'usine soviétique « Rousskij Diesel » qui sera le brise-glace le plus puissant existant dans le monde.

**An.** - Supposed Ice Conditions in the Northern Sea [*Prognosis condicionum glaciei in maribus arcticis*]. (In Russ. & Engl.). Bull. Arct. Inst., 6/7, 263, 292-293. Leningrad (1934). **a - 1687**

Prognosis communicated by the State Hydrological Institute of the USSR on June 4th, 193 4, on the ice conditions in the Barents Sea, the Kara Sea, the Laptev Sea and the East Siberian and Chukchee Seas.

**An.** - Les ondes de glace [*De undis glacialibus*]. (En russe). Meteor. Vestn., 8/9, 284. Leningrad (1934). **a - 1688**

Note sur un séismographe pour la glace qui permet d'obtenir la caractéristique de l'effet oscillatoire de la couche glaciale.

**An.** - Traversée du chef de la Première Expédition au fleuve Léna, B. V. Lavrov, du Cap Gamarnik à l'Ile de S. Kamenev [*Transitus, per* B. V. Lavrov *ducem prioris expeditionis ad flumen* Lena *peractus, a promunturio* Gamarnik *ad Insulam* S. Kamenev]. (En russe). Bull. Arct. Inst., 8/9, 308-309. Leningrad (1934). **a - 1689**

Bref compte rendu du passage effectué en partie en avion et en partie, par suite d'une avarie de l'appareil, à pied et entrepris dans le but d'étudier les conditions des glaces entre le Cape Tchéljouskin en l'Ile Serge Kamenev (Terre du Nord) en Juin 1934.

**An.** - Southern Ice Reports [*Relationes circa glacies regionum merid.*]. 5 tables. Mar. Obs., XII, 117, 22-27. London (1935). **a - 1690**

Reports of ice sighted in January 1934 and in the month of January in years previous to 1934, which have not been previously published in the Marine Observer. – Remarks – R. R. S. « Discovery II. South Orkneys. January lst to 7th, Southern Coasts of the Islands. In Lewthwaite and Washington Straits. North Coasts. West of Coronation Island. Description. – Ice sighted in February 1934, in March 1934 – Reports of ice sighted in the months of February and March in years previous to 1934 which have not previously been published in the Marine Observer.

**An.** - Exploring the Greenland Ice-Sheet [*Navigatio in Groenlandiam, glacies explorandi causa*]. Nature, CXXXIV, 3387, 490. London (1934). **a - 1691**

On the ices of the east coast of Greenland between Scoresby Sound und Angmagssalik.

## Vis magnetica.

**Allen C. W.** - Atmospherical Potential-Gradient Observations at the Commonwealth Solar Observatory, Mount Stromlo, Canberra [*De observato potentiale-gradiente atmosphaerico in Observatorio regionis* Commonwealth *in Monte* Stromlo (Canberra)]. 9 figs., 47 pp., Mem. Commonw. Solar Obs., I, 4, Canberra, Australia (1934). **a - 1692**

Description of the site, apparatus and routine for recording the potential gradient at the Commonwealth Solar Observatory, Mount Stromlo, Canberra, Australia. Results of measurements during six years (1927-1932) are presented and discussed. The secular change in the potential gradient, the annual variation-curve, and the influence of local meteorological conditions upon the diurnal variations for selected days. Correlation between the gradient and the wind-velocity, and cloudiness.

**Appleton E. V.** - Radio Observations During the International Polar Year 1932-33 [*Radioobservationes peractae, anno polorum 1932/33*]. 3 figs., 1 pl. Proc. R. Inst. Great Britain, XXVIII, part I, 132, 1-17. London (1934). **a - 1693**

**Banerji S. K. & Banerji B. N.** - Magnetic, Meteorological and Seismographic Observations Made at the Government Observatories, Bombay and Alibag, in the Year 1932 under the Direction of. . . [*Observationes magneticae, meteorologicae, sysmographicae in observatoriis nationalibus peractae in* Bombay *et* Alibag, *A. 1932. Directoribus* . . .]. 5 pls. xiv-135 pp, Manag. Publ. Delhi (1934). **a - 1694**

**Barlindhaug Einar** - Results of Registrations of the Atmospheric Electric Potential Gradient at the Auroral Observatory, Tromsø, During the Period March 1932-July 1933 [*De gradiente potentiale electrico atmosphaerico. Resultatus ex registrationibus peractis in observatorio auroris studendis in* Tromsø *a mense Martio 1932 ad Julium 1933*]. 7 figs., Geof. Publ., Norske Vidensk. Akad. X, 12, 3-12. Oslo (1935). **a - 1695**

The atmospheric electric potential gradient was recorded at the Auroral Observatory, Tromsö, during the period April 1932–July 1933. The reduction factor was determined by absolute measurements carried out on the lake « Prestvannet » in the neighbourhood of the observatory. The diurnal curve of the potential gradient for meteologically indisturbed days has been given. A detailed discussion of the influence of different types of meteorological disturbances on the potential gradient is included in the last part of the paper.

**Bartels J.** - Terrestrial-Magnetic Activity in the Years 1931 and 1932 [*De magnetica terrestri activitate A. 1931 et 1932*]. 1 fig., 4 tables. Terr. Magn. XXXIX, 1, 1-4. Baltimore, Md. (1934). **a - 1696**

Monthly means, u-measure and $u_I$-measure, 1931 and 1932. Annual means of u-measure, $u_I$-measure, relative sunspot-numbers R, and international magnetic character-figures C. Frequency (number of days in 3 years) of international magnetic character-figures C. Correlation-coefficients between quarterly means of terrestrial-magnetic activity $u_I$, relative sunspot-numbers R, and areas of solar limb-prominences P, 1910 to 1932.

**Bartels J.** - Twenty-Seven Days Recurrences in Terrestrial Magnetic and Solar Activity 1923-1933 [*De periodicis cursibus 27 dies quoad magneticam terrestrem activitatem et activitatem solis. 1923-1933*]. 1 diagr., 2 tables. Terr. Magn. XXXIX, 3, 201-202. Baltimore, Md. (1934). **a - 1697**

Author gives a new diagram showing side by side, in a somewhat improved and simplified manner, the recurrence phenomenon for the last sunspot cycle 1923 to 1933 in terrestrial-magnetic activity (C) and solar activity (relative sunspot-numbers R for the central zone). (See: first diagram published in « Terr. Magn. », XXXVII, 1-52 1932).

**Berkner L. V. & Wells H. W.** - Report on Ionosphere-Investigations at the Huancayo Magnetic Observatory (Peru) During 1933 [*De Ionosphaera. Relatio de studiis in observatorio Magnetico Peruviensi* Huancayo *peractis, A. 1933*]. Proc. Inst. Radio Eng. XXII, 9, 1102-1123. New York (1934). **a - 1698**

**Berkner L. V. & Wells H. W.** - F-Region Ionosphere-Investigations at Low Latitudes [*Investigationes in regionem–F jonosphaerae, demissis latitudinibus*]. 12 figs. Terr. Magn. XXXIX, 3, 215-230. Baltimore, Md. (1934). **a - 1699**

Account of further studies of the F-region, ordinarily composed of the F-layer at night which is divided into the $F_1$- and $F_2$- layers at small zenith-angles of the Sun, carried on at the Huancayo Magnetic Observatory of the Department of Terrestrial Magnetism of the Carnegie Institution, Washington, during the year 1933. The separation of the $F_1$- and $F_2$- layers appears to occur because of a decrease of virtual height of the $F_1$- layer and a marked rise of virtual height of the $F_2$- layer. To adequately represent this effect, iso-ionic charts showing the change of virtual height and ionization with time have been constructed.

**Bernardini G. & Bocciarelli D.** - Alcune ricerche sui cosidetti sciami [*Nonnullae investigationes in* sciami, *ut dicunt*]. Ric. Scient., a. V, II, 11-12, 464-467. Roma (1934). **a - 1700**

Gli autori hanno studiata l'intensità degli sciami che sono generati secondo la direzione verticale e quella inclinata di 60° rispetto allo zenit, in uno schermo di piombo di spessore variabile.

**Bernardini G. & Bocciarelli D.** - Sull'assorbimento della radiazione corpuscolare penetrante secondo diverse inclinazioni zenitali [*De absorptione radiationis corpuscularis penetrantis ex variis inclinationibus zenitalibus*]. Ric. Scient., a. VI, I, 1, 33-39. Roma (1935). **a - 1701**

Si riferiscono i risultati di misure di assorbimento della radiazione corpuscolare penetrante secondo diverse inclinazioni zenitali e si confrontano con quelli relativi alle misure di assorbimento della *radiazione penetrante* eseguite con camere di ionizzazione.

**Bontch-Bruewitch M. A.** - Measurements of Electrical States of Upper Stratosphere in Polar Regions (Kennelly-Heaviside Layer) [*De dimensis condicionibus electricis stratosphaerae superioris in polo regionibus proximis. (Stratus K-H)*]. Proc. Inst. Radio Eng., XXII, 9, 1124-1138. New York (1934). **a - 1702**

**Bowen I. S., Millikan R. A. & Neher H. V.** - A Very High Altitude-Survey of the Effect of Latitude Upon Cosmic-Ray Intensities and An Attempt at a General Interpretation of Cosmic-Ray Phenomena [*De peraltis altitudinibus exploratis ad effectum studendum latitudinis in intensitatem radiorum cosmicorum. Agitur etiam de inter-*

*pretandis phaenomenis ad radios cosmicos pertinentibus*]. Phys. Rev., XLVI, 8, 641-652. Lancaster, Pa. (1934). **a - 1703**

**Bronstein K. G.** - Observations sur les irradiations pénétrantes à l'extrème-Nord [*De observatis irradiationibus penetrantibus in extrema regione sept.*]. (En russe; rés. allem.). 5 fig., 14 tabl. Trudy Gos. Rad. Inst. (Trav. Inst. Rad. Etat), II, 5-29. Leningrad (1933). **a - 1704**

Résultats des observations exécutées par l'A. au Laboratoire Géophysique Polaire à Matotchkin Char (Novaja Zemlja) pendant l'hiver 1929-30.

**Brown F. C.** - The Magnetic Survey of China [*De muneribus magneticis Sinensibus*]. Lingnan Sc. Journ., XII, Suppl. May, 101-104. Canton (1933). **a - 1705**

**Brown J. G.** - Research in Atmospheric Electricity at Stanford University [*Investigationes in electricitatem atmosphaericam in Universitate peractae* Stanford]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 186. Washington D. C. (1934). **a - 1706**

Brief report of the work performed, one part of which may be made possible through the cooperation of the Naval Air Base at Sunnyvale.

**Burton E. T. & Boardman E. M.** - Audio-Frequency Atmospherics [*De perturbationibus quoad audiofrequentiam*]. Nat. Res. Counc. Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 155-158. Washington D. C. (1934). **a - 1707**

To complete the data of a paper presented a year ago (E. T. Burton & E. M. Boardman, « Audio-frequency Atmospherics », Proc. I. R. E., v. XXI, pp. 1476-1494, 1933) one feature of which was some sound-records of musical atmospherics, an account of some additional records and a brief review of the subject are given in this paper. The need for an extended study of these musical atmospherics is emphasized, and the authors claim that if a correlation exists between these sounds and other phenomena of terrestrial magnetism and electricity, a useful line of investigation may be open to the geophysicist.

**Cechura F.** - Magnetische Kartierung und Geologie [*Chartographia magnetica ac Geologia*]. Beitr. angew. Geophys., IV, 4, 407-415. Leipzig (1934). **a - 1708**

**Chapman S.** - Report on International Collaboration to Advance the Study of the Moon's Effect Upon Geophysical Phenomena [*Relatio de consociatis operibus omnium gentium ad studia incrementanda circa effectum lunarem in phaenomena geophysica*]. C. R. Assemblée Lisbonne 1933, Un. Géod. Géoph. Int., Ass. Magn. Electr. Terr. Bull., 9, 104-105. Copenhague (1934). **a - 1709**

**Clay J. & Zanstra H.** - Results of the Dutch Cosmic-Rays Expedition 1933. III. Absorption Phenomena of Corpuscular Cosmic Rays [*Resultatus ex navigatione ab Hollandesibus peracta ad radios cosmicos studendos, A. 1933. III. Phaenomena quoad absorptionem radiorum cosmicorum corpuscularium*]. Physica, I, 9, 839-848. The Hague (1934). **a - 1710**

**Corlin A.** - Cosmic Ultra-Radiation in Northern Sweden [*De ultra-irradiationibus cosmicis in Suetia Sept.*]. 113+81 pp. Ann. Obs., 4. Lund (1934). **a - 1711**

Complete account of the development of the entire problem of cosmic radiation through the past two decades. Interpretation of the measurements of the cosmic radiation made by the author in Northern Sweden from 1929 to 1933. Discussion of the effects of meteorological conditions on the cosmic-ray intensity. Negative evidence of the relationship between cosmic-ray intensity and terrestrial magnetic disturbances. Results of measurements at different levels of the penetration of cosmic-rays. The depth-versus-intensity curve.

**Cowling T. G.** - The Magnetic Field of Sunspots [*Campus magneticus macularum solis*]. Monthly Not. R. Astr. Soc., XCIV, 1, 39-48. London (1933). **a - 1712**

Author presents the proof that Larmor's electromagnetic-hydrodynamic hypothesis of the Earth's permanent magnetic field is untenable. As a substitute for Larmor's sunspot-theory author suggests that the field of the spots may be due primarily to a warping of the general solar magnetic field by motion of the gas in the region of the spots, the concept of circular electric currents about the core of the spots being retained as in Larmor's theory.

**Currie B. W.** - Atmospheric-Electric Observations of the Potential Gradient at Chesterfield, Canada [*De observationibus electro-atmosphaericis quoad gradientem potentialem apud* Chesterfield *in regione Canadensi*]. 2 figs., 4 tables. Terr. Magn., XXXIX, 1, 23-31. Baltimore, Md. (1934). **a - 1713**

Location and site of station (lat. 63° 20′ north, long. 90° 42′ west). Instrumental details. Standardization tests. Data and results of the continuous records of the atmospheric potential gradient taken at the Canadian International Polar Year station at Chesterfield, from April to August 1933 inclusive.

**Currie B. W.** - Summary of Some Auroral Height-Measurements and Observations at Chesterfield, Canada [*Summarium aliquarum mensurarum quoad altitudinem aurorae borealis observationumque apud* Chesterfield *peractarum in regione Canadensi*]. 7 figs. Terr. Magn., XXXIX, 4, 293-297. Baltimore (1934). **a - 1714**

Brief account of the Aurora-Borealis investigations of the Canadian International Polar-Year party located at Chesterfield Inlet (63° 20′ north, 90° 42′ west) which comprised single-station visual observations, single-station photographs of the brighter displays, and double-station photographs for height-measurements. Description of camera and methods of observation used. Diagrams showing the distribution of auroral heights, and the nightly variation in number of auroral forms for clear nights. Some typical aurora forms are shown in a figure.

**Dauvillier A.** - Recherches sur l'ozone atmosphérique effectuées au Scoresby Sund pendant l'année polaire [*Investigationes de ozono atmosphaerico peractae in* Scoresby Sund, *anno polorum perdurante*]. Journ. Phys. & Le Radium, V, 9, 455-462. Paris (1934).

( — ) Voir: Etude du champ électrique terrestre, de l'ionization atmosphérique et du courant vertical au Scoresby Sund pendant l'année polaire. C. R. Acad. Sc. CC, 26, 2209-2211. Paris (1935). **a - 1715**

Observations, en deux stations distinctes au moyen d'électromètres Benndorf, munis de prises, de potentiel à l'ionium. La conducibilité due au petits ions a été mesurée

quotidiennement, au moyen d'appareils de Gardien. Mesures ont été faites, au moyen d'un appareil d'Ebert, de la densité des petits ions. Le courant vertical a été étudié par deux méthodes ayant conduit au même résultat.

**De Benedetti S. & Viganò M.** - Influenza di una corrente circolare equatoriale sui raggi cosmici [*De influentia alicuius currentiae circularis aequatorialis in radios cosmicos*]. 5 fig., Ric. Scient., II, 11-12, 422-431. Roma (1934). **a - 1716**

In questo lavoro venne applicata una formula di Störmer per esaminare l'influenza sui raggi cosmici di una corrente circolare equatoriale che produce variazioni del campo magnetico terrestre. Assumendo che i valori delle grandezze che definiscono questa corrente siano tali da render conto della posizione delle aurore boreali e dell'entità delle perturbazioni magnetiche, si conclude che, almeno a grandi altezze, dovrebbe aversi un effetto sensibile; si nota infine che un anormale aumento di ionizzazione con l'altezza, misurato da Regener il 29 marzo 1933, può essere attribuito all'effetto studiato.

**Dijk G. (van)** - The Magnetic Character of the Year 1933 and the Numerical Magnetic Character of Days 1933 [*De peculiaritatibus magneticis anni 1933. Idem quoad singulos dies eiusdem anni*]. 2 tables. Terr. Magn., XXXIX, 3, 237-238. Baltimore, Md. (1934). **a - 1717**

1. Mean magnetic character-numbers for each day of 1933 from data supplied by 48 magnetic observatories. 2. Dates of five magnetically calm and five most disturbed days with mean character-numbers during 1933.

**Douguet M. & Bureau R.** - Sur la variation diurne des atmosphériques pendant la nuit polaire [*De variatione diurna atmosphaerica noctu polorum*]. C. R. Acad. Sc., CIC, 2, 160-163. Paris (1934). **a - 1718**

Un maximum quotidien se produit aux heures où la dépression du soleil est la plus grande. Il est comparable au maximum nocturne des régions tempérées. Expériences faites à la station de Scoresby Sund disposant de deux enregistreurs.

**Duperier A.** - Sobre las fluctuaciones del campo eléctrico terrestre [*De fluctuationibus campi electrici terrestris*]. Serv. Meteorol. Español, Ser. A, 2, 10 pp. Madrid (1934). **a - 1719**

**Dwight C. H.** - The Diurnal Variation of the Space-Charge and Its Effect Upon the Potential-Gradient [*De variatione diurna accumulationis electricae in spatio eiusque effectu in gradientem potentialem*]. Phil. Magaz., XVIII, 120, 719-724. London (1934). **a - 1720**

**Eble Louis** - Sur la variation annuelle du champ magnétique terrestre [*De variatione annua campi magnetici terrestris*]. 2 tabl. C. R. Acad. Sc., CC, 15, 1342-1343. Paris (1935). **a - 1721**

Résultats des observations sur la marche annuelle des éléments magnétiques, qui présentent une succession superposée à la variation séculaire linéaire. Hypothèse tendant à expliquer la variation annuelle du champ magnétique terrestre.

**Egedal J.** - On the Propagation of Magnetic Storms [*De tempestatibus magneticis earumque propagatione*]. 2 tables. Terr. Magn., XXXIX, 4, 321-322. Baltimore (1934). **a - 1722**

Examination of the propagation of three sudden commencements of magnetic storms whose times have been compiled by Prof. A. Tanakadate in a report presented to the Association of Terrestrial Magnetism and Electricity (S.: C. R. Ass. Lisbonne 1933, Bull. 9, 149-157, 1934). Author assumes that the storm was produced by electric particles coming from the Sun and that there may be real propagation of the storm in such a manner that the storm will travel gradually from one side to the other of the Earth. With the above assumption it is concluded from the data compiled by A. Tanakadate that: (1) it is not possible to draw from these data a definite conclusion as to the velocity of propagation of magnetic storms; (2) it is not probable that the time required for a magnetic storm to travel from one side of the Earth to the opposite exceeds one minute.

**Ennis C. C.** - Magnetic Results of the United States Exploring Expedition, 1883-1884. Lieutenant Charles Wilkes, Commander [*Resultatus magnetici ab expeditione explorandi causa ab Americae Statibus Foederatis peracta, duce Carolo* Wilkes. *1883-1884*]. 1 fig., 2 tables. Terr. Magn. & Atm. Electr., XXXIX, 2, 91-101. Baltimore, Md. (1934). **a - 1723**

Historical account and report of magnetic observations performed during the United States Exploring Expedition, which supply some additional foundational material for investigations of the secular changes in the Earth's magnetism.

**Fanselau G.** - Ueber den funktionalen Charakter der Abhängigkeit der erdmagnetischen Aktivität von den Sonnenfleckenrelativzahlen [*De activitatis magneticae terrestris dependentia a numero relativo macularum solis*]. Veröff. Meteorol. Inst. 402, 104-108. Berlin (1934). **a - 1724**

**Fleming J. A.** - Terrestrial Magnetism and Electricity [*De magnetismo terrestri ac electricitate*]. Amer. Year Book for 1933, 752-756. New York (1934). **a - 1725**

**Fleming J. A.** - Report of Committee to Consider Existing and Desirable Distribution of Magnetic and Electric Observatories and Better Coordination of Work and Publications of Existing Observatories [*Comitatus de his rebus refert: Necesse perpendere distributionem hodiernam observatoriorum magneticorum et electricorum atque etiam eorumdem distributionem in futurum optandam. Nobis necessarium est novam dispositionem perpendere operum et publicationum ab hodiernis Observatoriis redactarum*]. C. R. Assemblée, Lisbonne 1933, Un. Géod. Géoph. Int., Ass. Magn. Terr., Bull. 9, 107-113. Copenhague (1934). **a - 1726**

**Fleming J. A.** - Report by the Department of Terrestrial Magnetism of the Carnegie Institution of Washington to the Lisbon Assembly on Work Done since the Stockholm Assembly [*Relatio redacta a Sectione pro magnetismo terrestri ad* Carnegie *institutionem* Washington *pertinente, relata ad Conventum Olisippone habitum de operibus peractis post Holmiensem Conventum*]. C. R. Assemblée Lisbonne 1933, Un. Géod. Géoph. Int., Ass. Magn. Electr. Terr., Bull. 9, 171-189. Copenhague (1934). **a - 1727**

**Fleming J. A.** - Magnetic Investigations of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington, May 1933 to April 1934 [*Inquisitiones magneticae peractae a Sectione pro Magnetismo terrestri ad* Carnegie *institutionem* Washington *pertinente a mense Majo*

*1933 ad Aprilem 1934*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 177-181. Washington D. C. (1934). **a - 1728**

Work in the field and at observatories: Magnetic survey and cooperation, Byrd Antarctic Expedition II, International Polar Year, 1932-33, Observatories. Laboratory investigations: Ionosphere investigations, Ionization-measurements during thunder-storms, Intermediate and small ions, Diurnal variation in the rate of ionization near the Earth's surface, Nuclear physics. Compilation and discussion of terrestrial magnetic data: Compilation of observatory-data, Investigation of sudden commencements, Theory of the H-variometer, Diurnal variation. Publications.

**Fleming J. A.** - Summary of the Year's Work, Department of Terrestrial Magnetism, Carnegie Institution of Washington [*Compendium operum, A. 1933 peractorum, a Sectione pro Magnetismo terrestri ad* Carnegie *institutionem* Washington *pertinente*]. Terr. Magn., XXXIX, 4, 333-340. Baltimore (1934). **a - 1729**

Brief summary of the results obtained and progress made in the investigational and experimental work in the field of terrestrial magnetism, terrestrial electricity, ionosphere-investigations, nuclear-physics research, magnetic survey, observatory-work, oceanographic reductions.

**Fleming J. A. & Ennis C. C.** - Latest Annual Values of the Magnetic Elements at Observatories [*De elementis magneticis in Observatoriis. Ultimi valores annui*]. C. R. Assemblée Lisbonne 1933, U. Géod. Géoph. Int., Ass. Magn. Electr. Terr., Bull. 9, 213-218. Copenhague (1934). **a - 1730**

**Fleming J. A. & Ennis C. C.** - Photographically Enlarged Magnetograms for Study of Sudden Commencements [*Magnetogrammata per photographiam amplificata ad principia subitanea studenda*]. C. R. Assemblée Lisbonne 1933; Un. Géod. Géoph. Int., Ass. Magn. Electr. Terr., Bull. 9, 219-221. Copenhague (1934). **a - 1731**

**Gallo Joaquin** - Magnetic Observations in the Northern States of Mexico During 1933 [*Observationes magneticae in Statibus Mexicanis septentrionalibus peractae A. 1933*]. 2 tables. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part. I, 183-184. Washington D. C. (1934). **a - 1732**

Results of comparison of magnetic instruments (C. I. W. type and those of the Tucson Magnetic Observatory); results of magnetic observations.

**Green J. W.** - Preliminary Note of the Latest Secular-Change Values in the Caribbean Area and South America [*Nota prior de ultimis valoribus variationis secularis in area* Caribbea *et in America Merid.*]. C. R. Assemblée, Lisbonne 1933, Un. Géod. Géoph. Int., Ass. Magn. Electr. Terr., Bull. 9, 230-231. Copenhague (1934). **a - 1733**

**Guizonnier R.** - Phase de la composante diurne du gradient de potential électrique terrestre [*De phasi quoad componentem diurnam gradientis potentialis electrici terrestris*]. C. R. Acad. Sc., CC, 10, 852-853. Paris (1935). **a - 1734**

L'A. a déjà donné la variation annuelle moyenne de cette phase pour la station de Val-Joyeux de 1925 à 1931 (v.: «C. R., LCXXXXV, p. 1299, 1932). Dans la présente note il communique les résultats de la continuation de l'étude de cette phase sur toutes les données qu'il a pu se procurer; ces résultats permettent de classer les observatoires en trois groupes, selon le temps où le maximum de la composante diurne se produit. Dans ses conclusions l'A. affirme que c'est l'heure locale qu'il faut envisager quand on étudie la phase de la composante diurne du gradient de potentiel électrique.

**Gunn Ross.** - On the Origin and Maintenance of the Sun's Electric Field [*De origine et stabilitate campi magnetici solis*]. Terr. Magn., XXXIX, 4, 265-276. Baltimore (1934). **a - 1735**

In a series of papers («Phys. Rev.», XXXV, 635-642 (1930); XXXVI, 1251-1256 (1930); XXXVII, 983-989, 1129-1134, and 1573-1578 (1931); also «Science», LXXVI, 577-583 (1932), the author has examined some of the effects that might be expected to result from the motion of ions in the Sun's atmosphere. In the present paper he directs his attention to the underlying physics, and works out in a rough quantitative manner the expressions for the conduction and replenishing current-densities which in any steady state must balance each other.

**Hazard D. L.** - Results of Observations Made at the United States Coast and Geodetic Survey Magnetic Observatory Near Honolulu, Hawaii in 1925 and 1926 [*Resultatus ex observationibus peractis in Laboratorio Magnetico ad* Coast and Geodetic Survey *pertinente in Americae Statibus Foederatis apud* Honolulu *in insulis* Hawaii *a 1925 ad 1926*]. 13 magnetogrs, tables, 107 pp., U. S. Dpt. Comm., Coast & Geod. Surv., Ser. nº 522. Washington D. C. (1931). **a - 1736**

Introduction. Instruments. Constants of magnetograph. Absolute observations and base-line values. Diurnal variation. Summaries of monthly and annual means. Hourly values of declination, 1925. Hourly values of horizontal intensity, 1925. Hourly values of vertical intensity, 1925. Id. of declination, 1926. Id. of horizontal intensity, 1926. Id. of vertical intensity, 1926. Magnetic storms. The results of observations of the following years are published by the same Dpt.

**Hazard D. L.** - Results of Observations Made at the United States Coast and Geodetic Survey Magnetic Observatory at Cheltenham, Maryland, in 1927 and 1928 [*Resultatus ex observationibus peractis in Laboratorio Magnetico ad* Coast and Geodetic Survey *pertinente in* Cheltenham (Maryland) *A. 1927 et 1928*]. 14 figs., 104 pp., U. S. Dpt. Comm., Coast Geod. Surv. Washington D. C. (1934). **a - 1737**

**Hazard D. L.** - Alaska Magnetic Tables and Magnetic Charts for 1930 [*Tabulae et chartae magneticae pro regione Alaskiana. A. 1930*]. Num. tables, 4 charts. U. S. Dpt. Comm., Coast & Geod. Surv., Ser. nº 570, 1-36. Washington D. C. (1934). **a - 1738**

Introduction. Available data. Secular change data. Results of observations at repeat stations. Secular change tables. Contents of table of results. Construction of the magnetic charts. Observed magnetic elements and corresponding values Janaury 1, 1930. Illustrations: Lines of equal magnetic declination and of equal annual changes; Lines of equal magnetic dip. Lines of equal magnetic horizontal intensity. Lines of equal magnetic vertical intensity.

**Heck N. H.** - Some Problems of Magnetic Surveys [*Nonnulla problemata quoad relevationes magneticas*]. 3 figs. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 169-175. Washington D. C. (1934). **a - 1739**

A. Secular variation for the entire Earth: work to be undertaken in order to complete a minimum program of magnetic secular-variation work which may provide at least the spacing of repeat-stations recommended by the Committee on Magnetic Secular Variation of the Association of Terrestrial Magnetism and Electricity of the International Union of Geodesy and Geophysics, with especial reference to the need of further observations at sea and outlying oceanic islands. B. Maintenance of the magnetic survey of the United States.

**Heck N. H.** - Celebration of the Completion of the One-Third Century of Continuous Operation at the Cheltenham Magnetic Observatory [*Celebrationes in honorem Observatorii Magnetici in* Cheltenham *XXXIII° anno recurrente ab initio eius activitatis*]. 2 photos. Terr. Magn., XXXIX, 4, 325-331. Baltimore (1934). **a - 1740**

Account of the celebration on October 10, 1934 of the completion of a third of a century or three sunspot-cycles continuous operation at the Cheltenham Magnetic Observatory at Cheltenham, Maryland; text of addresses, completed by demonstrations of field-and observatory-work and exhibits.

**Hoffmeister C.** - On the Nature of Zodiacal Light [*De natura lucis zodiacalis*]. Pop. Astr., XLII, 8, 426-430. Northfield. Minn. (1934). **a - 1741**

**Homery G.** - Déclinaison en Indochine [*Declinatio in regione Indosinica*]. 1 fig., carte. Ann. Inst. de Physique du Globe Univ., XI, 79-84. Paris (1933). **a - 1742**

**Honda K., Masumoto H. & Shirakawa Y.** - On New K. S. Permanent Magnet [*De novo magnete perpetuo* K. S.]. Sc. Rep. Tôhôku Imp. Univ., XXIII, 3, 365-373. Sendai (1934). **a - 1743**

**Huxley L. G. H.** - Cosmic Rays and the Earth's Potential [*De radiis cosmicis deque Terrae potentiale*]. Nature, CXXXIV, 3389, 571-572. London (1934). **a - 1744**

In a recent communication (Nature CXXXIV, 416, Sept. 15, 1934) the A. has outlined a theory of the origin of cosmic rays in which the earth is regarded as a magnetised sphere carrying an electric charge, and the cosmic rays as charged particles which are drawn to it by electrostatic attraction. The author here gives some conclusions to which this theory leads.

**Ionescu Théodore & Mihul Constantin** - Propagation des ondes électriques dans le champ magnétique terrestre [*De propagatione undarum electricarum in campum magneticum terrestrem*]. C. R. Acad. Sc., CC, 15, 1301-1303. Paris (1935). **a - 1745**

En partant de la théorie de la propagation des ondes électriques dans la ionosphère (v. « C. R. », CXCIX, 1934, pp. 1301, 1389 et 1693) déduite de l'hypothèse d'après laquelle en tout point de l'atmosphère, l'intervalle de temps T entre deux chocs consécutifs d'un électron contre les molécules de gaz est le même pour tous les électrons, les AA. ont fait des observations sur l'influence du champ magnétique terrestre qui se manifeste par le dédoublement des échos ionosphériques; les résultats obtenus peuvent être expliqués, d'une façon complète, par l'effet Faraday, sans qu'on soit obligé de recourir à l'hypothèse d'après laquelle l'ionosphère serait composée de plusieurs couches ionisées.

**Kaehler K. & Scherhag R. Th.** - Luftelektrische Messungen in Westerland auf Sylt. Mit einem Anhang (von R. Th. Scherhag): Einige Messungen des luftelektrischen Potentialgefälles [*De mensuris electricitatis atmosphaericae in* Westerland *in insula* Sylt. *Supplementum a* R. Th. Scherhag *redactum de quibusdam mensuris quoad casum potentialis electrici atmosphaerici*]. 1 Tabellentaf., 1 Taf. a. T. Ann. d. Hydrogr., LXII, 7, 288-292. Berlin (1934). **a - 1746**

Messort und Messgerät. Ergebnisse der Messungen. Einfluss der Brandung auf das Leitvermögen der Luft. Aus den im Anhange mitgeteilten Messungen lässt sich der Schluss ziehen, dass besonders unmittelbar am Strande starke kurzperiodische Schwankungen des Potentialgefälles auftreten und dass diese bei Seewind stärker sind als bei Landwind und am Strande ausgeprägter auftreten als hinter den Dünen.

Mit Einverständnis beider Vf. Vf. wird auch eine Stellungsnahme zum Problem von Herrn Professor A. Defant–Berlin wiedergegeben.

**Kalitin N. N.** - On the Total Radiation in Spring and Summer on Franz-Joseph Land [*De totali radiatione vere et aestate in Terra Fr. Josephi.*]. (In Russ., Engl. Summ.). 1 diagr., 2 tabl. Bull. Arct. Inst., 11/12, 398-402, 432. Leningrad (1934). **a - 1747**

This paper contains an account of the results of observations on total radiation (diffused and sun-radiation) taken during the period, April-July, 1934 on Franz-Joseph Land and Calm Bay. The radiations have been recorded ininterruptedly the whole time by a Gorchinsky solarigraph. In a table the monthly amounts of total radiation on 1 cm² of horizontal surface of the earth are given, and in another, the diurnal course of the radiation for each month; there are also given the values obtained during the drift of the « Maud », in order to compare the data obtained in the same table.

**Kato Y.** - Seismic and Volcanic Activities and Changes in the Earth's Magnetic Field [*Activitates variationesque sysmicae et vulcanicae in campo magnetico terrestri*]. (2nd Paper). 36 figs., 26 tables. Jap. Journ. Astr., & Geoph., XII, 1, 1-26. Nat. Res. Counc. Tokyo (1934). **a - 1748**

In a previous paper (S. « Jap. J. Astr. & Geoph., X, 249-262, 1933) the author has established that there is an intimate relation between the tilting motion of the earth's crust and the secular variation of the vertical component or dip of the earth's magnetic field. In the present paper, on hand of the data of the systematic magnetic survey of Japan and working out the local magnetic disturbances that were accompanied by some recent great Japanese earthquakes or volcanic eruptions, he shows that a close connection exists between magnetic disturbances and earthquake or volcanic activity. and that it is probable that the magnetic disturbance appears shortly before the occurrence of an earthquake or volcanic eruption.

**Labrouste Y. & H.** - Contribution à l'étude des variations périodiques du magnétisme terrestre. (Composante diurne et semidiurne de la déclinaison) [*Contributio in studendas variationes periodicas magnetismi terrestris. Agitur de componentibus diurna et semidiurna declinationis*]. C. R. Assemblée Lisbonne 1933. Un. Géod. Géoph. Int., Ass. Magn. Electr. Terr., Bull. 9, 292-295. Copenhague (1934). **a - 1749**

**La Cour D.** - Rapport sur les travaux magnétiques du Danemark 1930-1933 [*Relatio de operibus magneticis in Dania peractis 1930-1933*]. C. R. Assemblée Lisbonne 1933. Un. Géod. Géoph. Int., Ass. Magn. Electr., Terr., Bull. 9, 23-31. Copenhague (1934). **a - 1750**

**Lagrange E.** - La carte magnétique du Congo Belge [*Tabula magnetica ad* Congo *Belgicum pertinens*]. Ciel & Terre, I, 6/7, 157-160. Bruxelles (1934). **a - 1751**

Note sur les progrès accomplis dans les levés magnétiques au Congo Belge.

**Leprince-Ringuet L. & Auger P.** - Etude par la méthode des coïncidences de la variation du rayonnement cosmique suivant la latitude [*De perspecta variatione radiationis cosmicae quoad latitudinem per methodum coincidentiae*]. Journ. Phys. & Le Radium, V, 5, 193-198. Paris (1934). **a - 1752**

**Ljungdahl G. S.** - A magnetic Survey of Sweden Made by the Hydrographic Service in the Years 1928-1930. [*Relevationes magneticae in Suetia peractae a Servitio Hydrographico, a 1928 ad 1930*]. 6 pls., 37 pp., Kungl. Sjökarteverket, Jordmagn. Publ., 9. Stockholm (1934). **a - 1753**

Account of an investigation carried out under the immediate direction, and in large part, by the author. After an introduction, setting forth the reason and purpose of the survey together with a brief statement of the scope and plans for the proposed work, a description of the instruments used, the method of selecting station-sites and testing for local disturbances and the distribution of stations, is given. The results for declination, inclination, horizontal intensity, and vertical intensity are shown graphically by charts giving the computed normal values and expressing the observed values as departures from the normal. In a supplementary paper a detailed description of stations and azimuths at each, is given. This survey forms a basis for future determination of secular variation and presents an opportunity for comparison of secular changes in disturbed and indisturbed areas in close proximity to each other.

**Maurain Ch.** - Sur l'intervalle de temps entre les phénomènes solaires et les perturbations magnétiques terrestres [*Spatium inter solis phaenomena et magneticas terrestres perturbationes*]. C. R. Acad. Sc. CXCVI, 24 Avril, 1182-1186. Paris (1933). **a - 1754**

**Maurain Ch.** - Annales de l'Institut de Physique du Globe de l'Université de Paris et du Bureau Central de Magnétique Terrestre [*Annales Instituti pro Orbis Physica ad Universitatem Parisiensem pertinentis Officiique centralis pro Magnetismo terrestri*]. 5 pl., 174 pp., XI, Presses Universitaires. Paris (1933). **a - 1755**

**McNish A. G.** - Apparent Effect of Magnetic Activity Upon Secular Variation of the Vertical Component of the Earth's Magnetic Field [*De simulato effectu activitatis magneticae in variationem saecularem componentis verticalis campi magnetici terrestri*]. 1 table. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet. Part I, 175-176. Washington D. C. (1934). **a - 1756**

Results of an investigation of the vertical-force records, showing correlation coefficients between differences of vertical intensity and of interdiurnal-variability measure of magnetic activity from widely distributed observatories.

**McNish A. G.** - A Possible Test for Theories of Magnetic Diurnal Variations and of Magnetic Storms [*De possibili quadam inspectione theoriarum quoad variationes magneticas diurnas et perturbationes*]. Terr. Magn. XXXIX, 1, 5-6. Baltimore, Md. (1934). **a - 1757**

Brief study of radio-waves reflection from the ionosphere carried out in order to test the three plausible theories which explain the magnetic diurnal variations, i. e. the atmospheric-dynamo theory, the diamagnetic theory, and the drift-current theory.

**Ono S.** - Preliminary Report of the Second Polar Year Observations on Terrestrial Magnetism and Earth Potential Gradient at Simoda, August 1932-June 1933 [*Relatio prior de observationibus quoad magnetismum terrestre atque gradientem potentialem terrestrem secundi anni polaris internationalis, in* Simoda *peractis a mense Augusto 1932 ad Junium 1933*]. C. R. Assemblée Lisbonne 1933, Un. Géod. Géoph. Int., Ass. Magn. Electr. Terr., Bull. 9, 76-82. Copenhague (1934). **a - 1758**

**Page L. & Adams N. I. Jr.** - Proposed Reformulation of Electromagnetic Equations and Revision of Units [*De aequationibus electromagneticis earumque expressionibus rursum conficiendis deque unitatibus recognoscendis*]. Journ. Frankl. Inst., 218, 517-531. Lancaster (1934). **a - 1759**

Authors present the most general symmetrical form in which the electromagnetic equations can be put. The Heaviside-Lorentz equations are the most attractive to theoretical physicists, but the Gaussian equations are recommended because the use of Maxwell's electrostatic and electromagnetic units is so general. Very few factors are required to transform an equation from Gaussian c. g. s. units to practical m. k. s. units or vice versa. The two systems of units are tabulated and compared. Numerical examples of calculations in practical m. k. s. units are given. Equations of circuit theory remain as at present in either Gaussian c. g. s. or practical m. k. s. units; and equations for induced e. m. f. in terms of rate of flux change remain as at present in practical m. k. s. units.

**Patterson J.** - Preliminary Report on Auroral, Magnetic, and Earth-Current Observations at Chesterfield, Northwest Territories, Canada [*Relatio prior de aurora boreali, currentiis terrestribus, observationibusque magneticis peractis in* Chesterfield *in regione Canadensi nord-occidentali*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 166-167. Washington D. C. (1934). **a - 1760**

Certain general conclusions made from the results of the reduction and tabulation of the auroral, magnetic, and earth-current observations taken at Chesterfield (63°20′ north lat., 90°42′ west long.) during the Second International Polar Year, which show that earth-current records from Chesterfield are characterized by rapid and often large variations, and that these periods of rapid fluctuation occur simultaneously with magnetic disturbances, and sometimes with auroral disturbances.

**Patton R. S.** - Magnetic Work of the United States Coast and Geodetic Survey, April 1933 to March 1934 [*De operibus magneticis peractis ab* U. S. Coast and Geodetic Survey *a mense Aprili 1933 ad Martium 1934*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 182-183. Washington D. C. (1934). **a - 1761**

Magnetic surveys: occupation of repeat-stations for determination of the secular change of the Earth's magnetism and declination-observations with compass-declinometer made in connection with the hydrographic and topographic surveys in Alaska and the Philippine Islands. Magnetic observatories. College-Fairbanks Polar-Year Station. Publications.

**Peters W. J.** - Stereogrammatic Representation of Some Sudden Commencements [*Repraesentatio stereogrammatica aliquorum initiorum subitaneorum*]. C. R. Assemblée Lisbonne 1933, Un. Géod. & Géoph. Int. Ass. Magn. Electr. Terr., Bull., 9, 240-244. Copenhague (1934). **a - 1762**

**Peters William J.** - Present Status of the Investigation on Dynamic and Tilting Deviations in the Department of Terrestrial Magnetism, Carnegie Institution of Washington [*De investigationibus in deviationes dynamicas atque oscillatorias a Sectione peractis pro Magnetismo terrestri ad* Carnegie *institutum in* Washington *pertinente*]. 2 tables. Terr. Magn. XXXIX, 3, 203-207. Baltimore, Md. (1934). **a - 1763**

Results of a study of tilting deviations made by means of a swing designed and constructed entirely of brass and actuated by an electric motor installed so far away that the motor has no magnetic effect on the compasses to be used in the experiments. The record is obtained by a motion-picture camera located on the swing-frame. Subsequent experiments revealed masking effects upon the deviation and the difficulty of eliminating or controlling them.

**Petrucci G.** - L'Etna nel punto di vista magnetico [*De Aetna pro vi magnetica*]. Memoria presentata all'Ass. Mineraria Sarda, 1-9. Palermo (1934). **a - 1764**

Il sistema Etneo dà luogo ad una vasta ed intensa anomalia magnetica (ampiezza per la comp. verticale ∼ 6000 v): essa risulta costituita, per la comp. verticale, da una stretta regione di anomalia negativa periferica che circonda tutto il sistema e da una regione di anomalia positiva centrale. In questa memoria è fatto cenno sull'interpretazione di tale andamento ed in ultimo viene messa in vista la particolare ubicazione del sistema Etneo rispetto all'andamento delle anomalie magnetiche laterali e se ne deduce un'ipotesi sulla origine del vulcano e sulla causa della posizione topografica di esso.

**Rakshit H.** - Report on Measurements of Ionospheric Heights at Calcutta During the Polar Year 1932-1933 [*Relatio de mensuris altitudinum jonosphaericarum in* Calcutta, *anno polorum perdurante* 1932-1933]. Phil. Magaz. XVIII, 120, 675-696. London (1934). **a - 1765**

**Rittikh P. A.** - Equipement de la Station Polonaise sur l'Ile des Ours et pose d'un « atmoradiographe » à l'Observatoire Géophysique de Tromsoe [*De constituta statione Polona in Insula Ursorum deque atmoradiographo in observatorio geophysico in* Tromsoe]. (En russe). Meteor. Vestn., 8/10, 273. Leningrad (1933). **a - 1766**

**Rizzo G. B.** - Influenza dell'atmosfera terrestre sopra l'effetto di latitudine nella intensità della radiazione cosmica [*De influentia atmosphaerae terrestris in effectum latitudinis quoad intensitatem radiationis cosmicae*]. Atti R. Acc. Naz. Lincei Rend. Cl. Sc. Fis., Mat. e Nat., XX, 183-186. Roma (1934). **a - 1767**

La diminuzione osservata nella intensità della radiazione cosmica sopra le regioni equatoriali può essere dovuta, oltre che all'azione del campo magnetico terrestre sopra i corpuscoli della radiazione, anche al maggiore assorbimento della radiazione stessa per effetto del rigonfiamento equatoriale dell'atmosfera, il quale è accompagnato da una maggiore densità dell'aria nella stratosfera: osservazioni simultanee della intensità della radiazione, a nord e a sud dell'equatore, in punti nei quali è più rapida la variazione della intensità col variare della latitudine, integrate colla registrazione degli elementi meteorici e degli elementi magnetici, dovrebbero permettere di distinguere l'effetto del maggiore assorbimento atmosferico e l'effetto dovuto al campo magnetico terrestre.

**Roman I. & Sermon T. C.** - A Magnetic Gradiometer [*De gradiometro magnetico*]. 5 figs., 17 pp. Amer. Inst., Min. Met. Eng. Techn. Publ., 542, New York (1934). **a - 1768**

**Rooney W. J.** - Diurnal Variation of Earth-Current Potentials on Magnetically Disturbed and Magnetically Calm Days [*De variatione diurna quoad potentiales currentiae terrestris, diebus per vires magneticas perturbatis, diebusque tranquillis*]. C. R. Assemblée Lisbonne 1933, Un. Géod. Géoph. Int., Ass. Magn. Electr. Terr., Bull. 9, 248-251. Copenhague (1934). **a - 1769**

**Rooney W. J.** - Aurorae and Earth-Currents [*Aurorae et currentiae terrestres*]. 4 fig. Terr. Magn. XXXIX, 2, 103-109. Baltimore, Md. (1934).
(—) See also Abstr. Nat. Res. Counc. Trans. Amer. Geoph. Union 15th Ann. Meet., Part I, 166, Washington D. C. (1934). **a - 1770**

A comparison of auroral observations and earth-current records from the College-Fairbanks Station during the International Polar Year shows considerable agreement between the aurorae and disturbances in the earth-current records. Coefficients of linear correlation from 0,71 to 0,76 were obtained from the records for 80 clear nights. The obtained results are at variance with comparisons of magnetic and auroral records which indicate a lack of relationship between the two phenomena.

**Rossi B.** - Sulla deflessione elettrica dei raggi cosmici [*De electrica deflexione radiorum cosmicorum*]. Ric. Scient., II, 11-12, 470-471. Roma (1934). **a - 1771**

E. Senz ha pubblicato recentemente i risultati di una esperienza sulla deflessione dei corpuscoli cosmici in un campo elettrico, eseguita col metodo delle coincidenze. Oggetto della presente nota è di porre in rilievo l'apparente contraddizione tra questi risultati sperimentali e le proprietà precedentemente note dei corpuscoli cosmici.

**Rossi B.** - Le attuali conoscenze sul fenomeno della radiazione cosmica [*Quae scimus de phaenomeno radiatonis cosmicae*]. Scientia, LVII, 2, 101–113. Bologna (1935). **a - 1772**

La radiazione cosmica si manifesta come una radiazione corpuscolare. I corpuscoli che compongono tale radiazione si suddividono in due gruppi: un gruppo « molle », che ha un potere di penetrazione di qualche centimetro di piombo, ed un gruppo « duro », che ha un potere di penetrazione di qualche metro di piombo. I corpuscoli del gruppo duro sono d'origine primaria, come è provato dal fatto che mai è stato possibile sorprenderne la nascita nella materia e dal fatto che essi risentono l'azione del campo magnetico terrestre. Questa azione si manifesta mediante l'effetto di latitudine e l'effetto azimutale; dal senso dell'effetto azimutale si è potuto dedurre che i corpuscoli cosmici sono, prevalentemente almeno, carichi di elettricità positiva. I corpuscoli del gruppo molle sono invece di origine secondaria e vengono generati nell'atmosfera in gruppi (« sciami ») da una radiazione di natura tuttora sconosciuta, che viene assorbita dalla materia assai più rapidamente dei corpuscoli del gruppo duro. Vi sono indizi in favore dell'ipotesi che essa costituisca, accanto ai corpuscoli del gruppo duro, una componente della radiazione cosmica primaria.

**Rossi B. & De Benedetti S.** - Confronto fra le « curve degli sciami » presso il livello del mare e a 2760 metri di altezza [*Agitur de phaenomeno quod italice dicitur* curve degli sciami. *Compa-*

*ratio inter easdem ad maris livellum atque etiam in altitudinem 2760 m.*]. Ric. Scient., II, 9-10, 379-380. Roma (1934). **a - 1773**

Ad integrazione delle ricerche sul comportamento dei raggi cosmici a diverse altezze, gli autori hanno misurata a Padova, col metodo delle coincidenze fra tre contatori a triangolo, la dipendenza del numero degli sciami emergenti da uno schermo di piombo, dallo spessore di questo.

**Rusinova I.** - Geophysical Work at the Polar Stations of the GUSMP (Chief Administration of the Northern Sea Route) [*De operibus geophysicis peractis a stationibus polaribus ad Administrationem Centralem pro via maritima nordica pertinentibus*]. (In Russ. & Engl.). Bull. Arct. Inst., 8/9, 302-303, 335-336. Leningrad (1934). **a - 1774**

Establishment of new polar stations on 10 points: development of the net of geophysical stations in Soviet Arctic; program of new aerological observations to be carried on by the polar stations; establishing of three floating weather bureaus and two permanent ones in order to assure the weather service and the study of the synoptical conditions of the Northern Sea Route; transformation of the polar station on Cape Cheliuskin into a magnetic observatory with a vast program of magnetic work.

**Sandoval Rosendo O.** - Some Facts About Secular Variation of the Earth's Magnetism [*Nonnulla de variatione saeculari magnetismi terrestris*]. 3 figs. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 167-169. Washington D. C. (1934). **a - 1775**

Comment of a paper by D. L. Hazard published in Terr. Magn. XXXVII, 234, 1932, which seems to be an answer to the unexplained facts mentioned by Mr. Hazard and concerned with the secular variation of the earth's magnetism.

**Sapienza A.** - Il periodo undecennale nei fenomeni geofisici [*De undecennali periodo in phaenomenis geophysicis*]. Astri, III, 12, 380-384. Roma (1934). **a - 1776**

Il periodo undecennale nei fenomeni di magnetismo terrestre. Il periodo undecennale nelle aurore boreali, nelle correnti telluriche e nell'elettricità atmosferica. Relazione tra attività solare e terremoti. Altri fenomeni geofisici con periodo undecennale.

**Sherman K. L.** - Atmospheric-electric Observations at the College-Fairbanks Polar-Year Station [*Observationes electro-atmosphaericae in Statione nomine* College-Fairbanks *perdurante anno polari*]. Nat. Res. Counc., Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 141-142. Washington D. C. (1934). **a - 1777**

Some of the results of the completing of a comprehensive observational program in atmospheric electricity carried out at College, Alaska. It consisted in obtaining continuous records of the atmospheric potential gradient, of the conductivity due to both positive and negative ions, and of eye-observations once daily of the number of positive and negative small ions and of Aitken nuclei. The program of work has been carried out in connection with the Second International Polar Year.

**Simeon Giuseppe** - Azione dei campi magnetici terrestre permanente e temporaneo sulla bussola di un aeromobile in virata [*Actio campi magnetici terrestris perpetui campique temporarii in buxidam alicuius aeromobilis convertentis*]. Ann. R. Ist. Sup. Nav., III, 2, 153-159. Napoli (1934). **a - 1778**

In altro lavoro: Comportamento della bussola magnetica nella virata alle varie latitudini. Riv. Aeron. 1933, l'Autore si è occupato dell'azione dei campi magnetici su di una bussola in virata. Qui estende lo studio anche all'influenza al campo temporaneo e stabilisce un'equazione generale.

**Smith F. W.** - Zodiacal Lights Notes [*De lucibus zodiacalibus*]. Pop. Astr., XXXXII, 55-56; 112-113. Northfield, Minn. (1934). **a - 1779**

**Stagg J. M.** - The Diurnal Variation of Magnetic Disturbance in High Latitude [*Variatio diurna perturbationis magneticae, alta latitudine*]. 6 figs., Tables. Proc. R. Soc., CXLIX, 867, 298-311. London (1935). **a - 1780**

Results of observations in ten stations in moderate and high latitudes in both hemispheres.

**Stetson Harlan T.** - Further Studies of Radio Transmission in Geophysical Investigations [*Studia recentiora radiotransmissionum in geophysicis investigationibus*]. 1 fig., 1 table. Nat. Res. Counc. Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 158-160. Washington D. C. (1934). **a - 1781**

Brief account of the study of the curves of monthly mean values of apparent time of propagation of 17-kilocycle trans-atlantic time-signal and of an investigation made of the times of propagation of the radio waves between cooperating stations in the world-wide longitude-campaign of 1926, as reported in the papers of the General Assembly of the International Scientific Radio Union for 1928. The studies have been carried on in order to elucidate the apparent correlations of the intensity of radio reception with solar activity and the position of the Moon as well as the interrelation of radio transmission to cosmic phenomena.

**Sucksdorf E.** - Ergebnisse der Beobachtungen des Magnetischen Observatoriums zu Sodankylä im Jahre 1930 [*Resultatus ex observationibus in Observatorio Magnetico in* Sodankylä *peractis A. 1930*]. 3 Taf., 57 S. Veröff. Magn. Obs. Finn. Akad. Wiss. (Osakeyntiö Kirjapaino Sanan Valta), 17. Kuopio (Finnland) (1934). **a - 1782**

**Toshniwal G. R.** - Three-fold Magneto-ionic Splitting of the Radio Echoes Reflected from the Ionosphere [*De triplici scissione magneto-jonica echuum marconigraphicarum a jonosphaera repercussarum*]. Nature, CXXXV, 3412, 471-472. London (1935). **a - 1783**

Brief account of systematic observations carried on at the Physical Laboratory of the University of Allahabad of the heights of the ionosphere during which on several occasions the appearance of a very close triplet set of echoes of the radio-waves has been noticed.

**Weinberg B. P. & Rogatchoff I. M.** sous la réd. de . . . - Catalogue des déterminations magnétiques dans l'U. R. S. S. et les pays limitrophes. III-ème Partie. Déterminations faites l'année de 1926 à l'année 1930 [*Catalogus determinationum magneticarum in U. R. S. S. et regionibus finitimis peractarum. Pars III^a^. Determinationes peractae ab A. 1926 ad A. 1930*]. (En russe). 4 cartes h. t., 390 pp. Glavn. Gheof. Observ. Leningrad (1933). **a - 1784**

Données sur ces observations jusqu'à 80°59° lat. N.

**Bombay and Alibag Observatories** - Magnetic Meteorological and Seismographic Observations Made at the Government Observatories, Bombay and Alibag, in the Year 1931, under the Direction of S. K. Banerji [*Observationes magneticae, meteorologicae et sysmographicae peractae in observatoriis nationalibus in* Bombay *et* Alibag, *A. 1931, directore* S. K. Banerji]. 5 pls., iii + 165 pp., Manag. Publ. Dehli (1933). **a - 1785**

**De Bilt Meteorological and Magnetic Observatory** - Annuaire. Quatre-vingt-quatrième année 1932. B. Magnétisme terrestre [*Annuarium. LXXXIV A. 1932. B. De magnetismo terrestri*]. XCVIII, vii–24 pp. K. Nederl. Meteorol. Inst. Utrecht (1933). **a - 1786**

**Institut météorologique Royal des Pays-Bas** - Caractère magnétique numérique des Jours [*De praecipuitate magnetica numerica dierum*]. 20 pp., X. De Bilt (1934). **a - 1787**

Publication sous les auspices de l'Association du Magnétisme Terrestre et de l'Electricité de l'Union Internationale de Géodésie et Géophysique.

**Instituto y Observatorio de Marina, San Fernando** - Anales del Instituto y Observatorio de Marina, publicados de orden de la Superioridad. Sección I. Observaciones meteorológicas, magnéticas y sismicas. Año 1933 [*Annales Instituti et Observatorii ad Classem pertinentium iussu editi Auctoritatum. Sectio Iª: Observationes meteorologicae, magneticae et sysmicae. A. 1933*]. ii–88 pp. Inst. y Observ. de Marina. San Fernando (1934). **a - 1788**

**London Meteorological Office** - The Observatories' Year Book 1932, Comprising the Meteorological and Geophysical Results Obtained from Autographic Records and Eye Observations at the Observatories at Lerwick, Aberdeen, Eskadelemuir, Cahirciveen (Valentia Observatory), and Richmond (Kew Observatory), and Results of Soundings of the Upper Atmosphere by Means of Registering Balloons [*Observatoriorum Annuarium pro A. 1932. Inclusi sunt resultatus meteorologici et geophysici per inscriptiones autographicas obtenti, atque etiam per observationes oculorum tantum auxilio*]. 447 pp., H. M. Stat. Off. London (1934). **a - 1789**

**Mauritius Royal Alfred Observatory** - Results of Magnetical and Meteorological Observations for the Months of September to December, 1932 [*De observationibus magneticis et meteorologicis*]. 4 pl., XVIII (new series), 146-197, Govmt. Press. Port Louis (1933). **a - 1790**

**Observatorio Astronomico Nacional** - Anuario del Observatorio Astronomico Nacional de Tacubaya para el año de 1934 [*Annuarium Observatorii Astronomici Nationalis in* Tacubaya. *A. 1934*]. 284 pp., Año LIV, Univ. Nac. Mexico. Tacubaya (1933). **a - 1791**

Valores de la declinación magnética y de otros elementos magnéticos para el ano de 1932 y para los primeros meses del 1933.

**Observatoire Géophysique Central** - Bulletin de magnétisme terrestre et d'électricité atmosphérique [*Bulletinus de magnetismo terrestri atque electricitate atmosphaerica*]. Nº 17, 40 pp. Izd. Glavn. Gheof. Oupr. Leningrad (1933). **a - 1792**

Valeurs des éléments magnétiques à Sloutzk (Pavlovsk) et Sverdlovsk (Ekaterinbourg) pour l'année 1929.

**Tokyo Central Meteorological Observatory** - The Annual Report of the Kakioka Magnetic Observatory for the Year 1931 [*Relatio annua*]. Pl., 132 pp., Observatory. Tokyo (1934). **a - 1793**

**Tzentraljnaja Gheofisitscheskaja Observatoria** (Central Geophysical Observatory) Bulletin of the General Magnetic Survey 1933 [*Bulletinus de muneribus magneticis A. 1933*]. 39 maps., 55 pp. Izd. Glavn. Gheof. Upr. Leningrad (1933). **a - 1794**

Preliminary results of a general magnetic survey of the Soviet territory, whose organization and direction have been entrusted to the Central Committee of the Hydro-Meteorological Service of the U. S. S. R. The present « Bulletin » consists of brief reports by chiefs of the parties engaged in the work, on the operations during the season 1931 under their charge. These reports deal with the general aspects of the work and the instrumental equipment employed, and are followed by tables containing the names and geographic coordinates of the stations occupied together with the values of declination, inclination, horizontal and vertical intensities, all reduced to the epoch 1931.5.

**F. G. C.** - Les orages et l'électricité atmosphérique [*De tempestatibus et electricitate atmosphaerica*]. 388 pp., LXVIII, Août. Bull. Soc. Astr. France. Paris (1934). **a - 1795**

Résumé des récents travaux de B. F. J. Schonland sur les éclairs.

**Jou.** - Etats de nos connaissances de l'Arctique au point de vue géomagnétique [*Quae adhuc novimus de Arctide ex scientia geomagnetica*]. (En russe). 2 tabl. Meteorol. Vestn., 8/10, 263-264. Leningrad (1933). **a - 1796**

**An.** - Magnetic Chart. Carte magnétique [*Charta magnetica*]. (In Engl. & French). Int. Hydrogr. Bull., II, 43-44. Monaco, Princ. (1935). **a - 1797**

Information on the publication by the Service Hydrographique of the French Navy of a new planisphere (number 5716) of the curves of equal magnetic variation in 1935 (nouveau planisphère des courbes d'égale déclinaison magnétique en 1935); completed by a list of the last variation charts published by the various nations.

## Gravitas.

**Ballarin S.** - Valutazione dell'effetto della configurazione ellissoidale della terra nella riduzione delle misure di gravità [*Effectus configurationis ellipsoidalis Terrae aestimatur quoad reductionem mensurarum gravitatis*]. Boll. Com. Geod. e Geof. Cons. Naz. Ric., IV, 1-2, 20-41. Milano (1934). **a - 1798**

Trascurando, rispetto all'unità, termini in valore assoluto non superiori alla quarta potenza dell'eccentricità numerica dell'ellissoide di Madrid, si deducono le correzioni da portare ai valori delle riduzioni delle misure di gravità calcolate per una sfera di raggio uguale a quello medio dell'ellissoide internazionale, quando si voglia tener conto della configurazione elissoidale della Terra.

**Cassinis G. & Dore P.** - Le tavole fondamentali per la riduzione delle misure di gravità [*Agitur de tabulis fundamentalibus pro reductione mensurarum gravitatis*]. Boll. Com. Geod. e Geof. Cons. Naz. Ric., IV, 1-2, 1-19. Milano (1934). **a - 1799**

Nella parte I, dopo aver dato conto dei criteri che hanno presieduto alla costruzione delle tavole e delle costanti numeriche assunte a fondamento di esse, si espongono i procedimenti di calcolo eseguiti per ottenere i valori tabulati nell'ipotesi di una Terra sferica, rinviando ad una memoria successiva di S. Ballarin per la valutazione delle correzioni necessarie quando si voglia tener conto della configurazione ellissoidica della Terra. Nella parte II è illustrata l'applicazione delle tavole ai calcoli effettivi di riduzione nelle diverse assunzioni: metodo di Bouguer con correzione topografica, metodo di Bouguer-Meinesz, metodo isostatico secondo Hayford, con densità di compensazione costante e variabile. Metodo isostatico secondo Heiskanen, etc.

**Cassinis G. & Dore P.** - Le tavole fondamentali per la riduzione delle misure di gravità. Parte II: Impiego delle tavole [*Agitur de tabulis fundamentalibus pro reductione mensurarum gravitatis. Pars IIª. Quomodo tabulis utitur*]. Boll. Com. Geod. e Geof. Cons. Naz. Ric., IV, 3-4, 97-106. Milano (1934). **a - 1800**

Metodo di Bouguer con correzione topografica. Riduzione isostatica col metodo di Pratt-Hayford. Riduzione isostatica col metodo di Airu-Heiskanen.

**Gulotta B.** - Considerazioni sul metodo differenziale in gravimetria [*De gravimetria. Considerationes de methodo differentiali*]. Boll. Com. Geod. Geof. Cons. Naz. Ric., 3 fig., IV, 3-4, 114-129. Milano (1934). **a - 1801**

L'Autore espone il metodo differenziale per le determinazioni di gravità relativa, nelle varie forme in cui esso è o può essere realizzato, mostrandone i vantaggi e gli inconvenienti. In particolare confronta le influenze che le variazioni di lunghezze dei pendoli hanno sui risultati delle osservazioni fatte col metodo classico e con quello differenziale. Mostra infine come quest'ultimo consenta l'impiego, *in aria libera*, di pendoli aventi una costante d'estinzione più elevata di quella dei comuni pendoli di bronzo, ma che, di fronte a questi, presentano altri vantaggi, come i pendoli di quarzo, quelli «a minimo» ecc.

**Hollweck F. & Lejay P.** - Mesures relatives de la gravité au moyen du pendule élastique inverse [*De gravitatis mensuris relativis per oscillum elasticum inversum*]. Journ. des Observateurs, août-sept., 109-145. Marseille (1934). **a - 1802**

**Heyl Paul R.** - Progress-Report on the Absolute Determination of Gravity at Washington [*Relatio extenditur de progressibus quoad determinationem absolutam gravitatis* Washington]. 1 table. Nat. Res. Counc. Trans. Amer. Geoph. Union, 15th Ann. Meet., Part I, 45-46. Washington D. C. (1934). **a - 1803**

Report of the results of a completed set of measurements of *g* with each of four silica pendulums of the U. S. Bureau of Standards, all resting by planes of stellite upon the same agate knife-edge.

**Matuyama Motomory** - Measurements of Gravity over the Nippon Trench on board the I. J. Submarine « Ro-57 » [*De gravitatis mensuris in vallo* Nippon *nomine, a navi submergibili* « Ro-57 »]. 1 fig. Proc. Imp. Acad., X, 10, 626-628. Tokyo (1934).

(—) See rev. by W. B. in Science LXXXI, 2100, 309-310 New York (1935). **a - 1804**

Brief description: preparation, instruments employed, surveys, some results.

**Numerov B. V.** - On the Problem of Determination of the Geoid on the Basis of Gravity Observations [*Problema perspicitur Geoidis determinandi ex gravitatis determinationibus*]. (In Russ. & Engl.). C. R. Acad. Sc. URSS, I, 1, 17-25. Léningrad (1935). **a - 1805**

Description of a new method of the determination of the geoid. Considering only the plains of the European and Asiatic regions of the URSS, it is possible to draw a potential surface over a wide area at a height not exceeding 500 m, and to calculate with confidence the reduction according to the method described. In developing the value of gravity into series by spherical functions, it is possible to determine the coefficients of development allowing to write the development of the radius-vector of the required potential surface, i. e. to construct the true figure of the Earth with the exception of a small amount of anomalous districts of mountainous regions. Stoke's formulas could be used for the same purpose.

**Perrier Georges** - Observations de l'intensité de la pesanteur aux Philippines, en Malaisie et aux Indes Néerlandaises [*Observationes perficiuntur quoad gravitatem in insulis Philippinis, in Malesia et Indiis Hollandicis*]. 1 tabl. C. R. Acad. Sc., CC, 8, 642-643. Paris (1935). **a - 1806**

Tableau donnant les valeurs de l'intensité de la pesanteur observée à l'appareil Holweck-Lejay aux stations suivantes: Luzon, Mindanao, Célèbes, sur les îles Ternate Amboyne, Randa, Timor et Florès, dans Bali et à d'autres stations (au nombre de 14) couvrant la moitié ouest de Java.

**Tsuboi Chûj** - Improved Apparatus for Taking Gravity Measurements at Sea on Board an Ordinary Vessel [*Agitur de apparatu qui gravitatis mensuras in mari peragendas, in navi qualibet navigando, reddit in melius*]. 2 figs. Proc. Imp. Acad., X, 10, 640-642. Tokyo (193 ). **a - 1807**

Having already described (Ib. IX, 374, 1933), the new apparatus as in the title A. here gives some information of improvements made to get better results.

## Sysmologia et vulcanismum bacini oceanici.

**Andreotti G.** - La zona epicentrale e la profondità del fuoco del terremoto dell'Alto Adriatico, 30 novembre 1934 [*De epicentrali sectore deque focali profunditate terraemotus in Hadriatico sept. die 30 mensis Novembris 1934*]. Ric. Scient., I, 1, 55-56. Roma (1935). **a - 1808**

L'Autore esamina l'ipotesi che la scossa di terremoto avvertita intorno all'Adriatico il 30 novembre 1934, avesse il suo epicentro nel Mare Adriatico, e mette in evidenza con la profondità del fuoco, anche la posizione della zona maggiormente colpita.

**Brockamp Bernhard, Sorge Ernst & Woelcken K.** - Seismik [*De Sysmicitate*]. 183 Abb., Tab. u. Kart., Wiss. Ergebn. deutsch. Grönland-Exped. Alfred Wegener 1929 u. 1930/31, II, 160 S., F. A. Brockhaus, Leipzig. (1933). **a - 1809**

Wiss. Ergebn. deutsch. Grönland-Exped. Alfred Wegener 1929 u. 1930/31, II, 160 S., F. A. Brockhaus, Leipzig.

**Demterescu G.** - Sur l'étude des sismogrammes [*De sysmogrammatis studendis*]. C. R. Acad. Sc., CC, 10, 850-851. Paris (1935). **a - 1810**

L'A. donne des équations qui représentent la courbe enregistrée par un sismographe au moment d'une oscillation sismique représentée par l'équation $x = Be\ at \sin W t$, $W = \frac{2\pi}{\tau}$. T étant la période supposée constante, de l'oscillation sismique, B et *a* des constantes; les calculs de réduction inhérente à l'emploi de la méthode exposée seront facilités par l'emploi de certaines tables que l'Auteur a l'intention de publier.

**De Pasquale O.** - Sistema pendolare di due masse impiegato come sismografo [*De systhemate oscillatorio duarum massarum quo utitur ac sysmographo*]. Atti R. Acc. Peloritana, XXXVI, 16-7 176. Messina (1934). **a - 1811**

Allo scopo di realizzare con un dispositivo pendolare di dimensioni relativamente piccole e di massa discreta (provvisoriamente registrazione a carta affumicata) periodi di oscillazione adatti alla registrazione dei teleismi, è stato costruito un modello di sismografo a due masse con asse di rotazione interposto. Provvisoriamente a titolo sperimentale lo strumento è stato costruito per una sola componente orizzontale; la forma definitiva di esso e i risultati sperimentali saranno riportati in un altro lavoro.

**Gatty O.** - The Oxford University Expedition to Spitsbergen, 1933. Appendix II: Report on the Geophysical Seismograph [*De navigatione ad* Spitsbergen *ab Universitate Oxonia peracta. A. 1933. Appendix IIª. Relatio de sysmographo geophysico*]. Geogr. Journ., LXXXIV, 2, 121-122. London (1934). **a - 1812**

Report on the results of a series of tests made by the Oxford University Arctic Expedition to Spitsbergen on the geophysical seismograph forming the end of the third stage in the trial of this instrument, which has now been lent to the Cambridge Department of Geodesy for further research.

**Heck N. H.** - A New Map of the Earthquake Distribution [*Tabula quaedam nova terrae motuum distributionem repraesentans*]. 1 map. Geogr. Rev. XXV, 1, 125-130. New York (1935).

( — ) See Rev. in: Nature, CXXXV, 3409, 348. London (1935). **a - 1813**

Latest attempt at mapping earthquakes distribution based on more complete, recent, and accurate information; some indication as to the construction of the map, the earthquake belts, the associated geographical features, and human consequences of the earthquakes which have in the past taken an active part in molding the surface to produce our present-day geographical conditions and will continue the process in the future.

**Imamura Akitune & Yosiyama Ryôiti** - On the Growth of the Volcanic Islet Taketomi-zima [*De elatione insuleti vulcanici* Taketomi-zima]. 7 figs. Jap. Journ. Astr. & Geoph., XII, 1, 109-112. (1934). **a - 1814**

To complete the information contained in a short note published by the senior author in collaboration with Mr. Z. Kawase (« Jap. Journ. Astr. & Geoph. », XI, 113-114, 1934) and in a paper of Mr. Tanakadate (op. cit., XII, 89-108, 1934), the authors give a short description of a new volcanic islet, Taketomi-zima formed off the coast of Alaid Island (155°40'10'' E, 50°50'30'' N), as it actually was towards the end of June 1934.

**Imamura Akitune** - Crustal Deformations Associated with the Dewa Earthquakes of 1804 and 1894 as Revealed Through the Revisions of Precise Levels [*Agitur de corticis terrestris deformationibus quae colligantur cum terrae motibus in* Dewa *A. 1804 et A. 1894, ex livellationibus nuper perfectis*]. 3 figs. Proc. Imp. Acad., XI, 2, 51-54. Tokyo (1935). **a - 1815**

**Kato Yosio** - Seismic and Volcanic Activities and Changes in the Earth's Magnetic Field [*De vulcanica et sysmica activitate variationibusque campi magnetici terrestris*]. (6th Report in Jap.). 5 figs. Disin (Earthquake), V, 764-770. Tokyo (1933). **a - 1816**

The author discusses the magnetic disturbances caused by the great Sanriku earthquakes of 1896 and 1933. In both cases the magnetic disturbances accompanied by these earthquakes were very remarkable. According to mareograms of the district where the earthquakes occurred, the first motion of the tunami was downward in 1896, whereas it was upward in 1933. This would suggest that the mechanism of the two earthquakes were exactly opposite to each other. The magnetic disturbances always appeared shortly before the occurrence of the earthquakes. (From an abstract of the author).

**Kato Yosio** - Seismic and Volcanic Activities and Changes in the Earth's Magnetic Field [*De vulcanica et sysmica activitate variationibusque campi magnetici terrestris*]. (7th Report in Jap.). 6 figs. Disin (Earthquake), VI, 54-62. Tokyo (1934). **a - 1817**

From the end of August 1933, a great number of earthquakes were felt at Okunakayama, Iwate prefecture, Japan. The author observed the magnetic dip in this locality und found that where the magnetic dip had maximum value, there the area was most strongly shaken. It is suggested that changes in the physical state of the earth's crust may be ascertained, and the epicenter of earthquakes confirmed by observing the magnetic dip. (Author).

**Kato Yosio** - Seismic and Volcanic Activities and Changes in the Earth's Magnetic Field [*De vulcanica et sysmica activitate variationibusque campi magnetici terrestris*]. (9th and 10th Report in Jap.). Disin (Earthquake), VI, 89-101. Tokyo (1934). **a - 1818**

In the first part of the reports the author discusses the magnetic disturbance after the great eruption of Mt. Komagatake, Hokkaido, in 1930 and claims that changes in magnetic dip are closely correlated with changes in land-level, which seems to suggest that changes in pressure or temperature are causes commonly responsible for the disturbances mentioned. In the second part author discusses the magnetic disturbance caused by the great Mino-Owari earthquake of 1891. This disturbance may be illustrated with a model consisting of a simple magnet, placed at right angles to the main fault in the earth's crust with its north pole pointing to the south. (From an abstract of the author).

**Kato Yosio** - Seismic and Volcanic Activities and Changes in the Earth's Magnetic Field [*De vulcanica et sysmica activitate variationibusque campi magnetici terrestris*]. (8th Report in Jap.). 1 fig. Disin (Earthquake), VI, 247-251. Tokyo (1934). **a - 1819**

In this paper author discusses the local magnetic disturbance that occurred near the epicenter of the earthquake of Odiya and Kawaguti, Niigata prefecture, Japan, on October 4th, 1933. (Author).

**Kato Yosio** - Seismic and Volcanic Activities and Changes in the Earth's Magnetic Field [*De vulcanica et sysmica activitate variationibusque*

*campi magnetici terrestris*]. (11th Report in Jap.). 3 figs. Disin (Earthquake), VI, 529-534. Tokyo (1934). **a - 1820**

This is a further note on the magnetic disturbance associated with the great Sanriku earthquake of 1933. In July 1934, the author observed the magnetic dip again in the region concerned and discovered that during the following year it showed a tendency to recover from the abnormal state it had at the beginning of 1933. (Author).

**Kato Yosio** - Seismic and Volcanic Activities and Changes in the Earth's Magnetic Field [*De vulcanica et sysmica activitate variationibusque campi magnetici terrestris*]. (The Third Paper). 4 figs., 4 tables. Jap. Journ. Astr. & Geoph., XII, 2, 237-243. Tokyo (1935). **a - 1821**

In the present paper author discusses the local magnetic disturbances observed near the epicenter of two earthquakes, claiming that there is a close relation between seismic or volcanic activities and magnetic disturbances, which always appear shortly before the occurrence of an earthquake or volcanic eruption, while after one of the both, the magnetic field shows signs of recovering from the disturbance.

**Knight Richard H.** - Seismology and the Navy [*De sysmologia deque classe*]. 3 figs. U. S. Nav. Inst. Proc., XL, 378, 1110-1120. Annapolis (1934). **a - 1822**

The purpose of this article is to establish a measure of earthquake consciousness in the mind of the nautical reader without engendering an exaggerated idea of menace from this source.

**Nagaoka Hantaro & Shirai Soshiaki** - Connexion Between the Warping of the Geoid with Seismic and Volcanic Activities [*Agitur de connexione inter plicas quae in Geoide formentur et vulcanicas sysmicasque activitates*]. 4 figs. Proc. Imp. Acad., XI, 1, 19-22. Tokyo (1935). **a - 1823**

Some examples illustrating the results obtained by drawing curves of deviations N of geoid from the normal ellipsoid all over the vorld from Hirvonen's data, for equiparallels and longitudes, which seem to indicate that (1) great earthquakes occur in places where warping is negative and where the gradient is steep, and (2) regions where deviations are positive are generally volcanic and locally seismic.

**Roncali G.** - Sulla interpretazione dei sismogrammi [*De sysmogrammatis interpretandis*]. Mem. R. Uff. Centr. di Meteorol. Geof., ser. III, v. IV, mem. VII. Roma (1934). **a - 1824**

Viene esaminato matematicamente il metodo grafico di interpretazione dei sismogrammi consistente nel sostituire, ad ogni singolo punto del sismogramma, un punto avente per ordinata una combinazione lineare delle ordinate dei punti circostanti. Vengono determinate le espressioni analitiche dei coefficienti della combinazione in funzione dei risultati, sia come amplificazioni, sia come spostamenti di fase, che si desiderano ottenere, ricavando formule del tutto generali. Vengono anche precisati i limiti delle possibilità di tale metodo. Infine sono applicate ad alcuni casi pratici le formule generali trovate, ritenendo espressioni particolarmente semplici, e viene messa in rilievo la possibile applicazione del metodo allo scopo di ricostituire il vero movimento del suolo, liberandolo dalle varie deformazioni strumentali.

**Sapper Karl** - Seismische und semivulkanische Ereignisse in Südsumatra 1933 [*De eventis sysmicis et semi-vulcanicis in Sumatra merid. A. 1933*]. Peterm. Mitt., LXXX, 9, 260-261. Gotha (1934). **a - 1825**

Kurzer Bericht über das am 5. Juni 1933 in Südsumatra stattgefundene Erdbeben. Dies ist das erste Mal, wo nachgewiesen worden ist, dass Beben auch phreatische Ausbrüche wecken können.

**Tanakadate Hidezo** - Volcanic Activity in Japan During the Period Between June 1931 and June 1934 [*De vulcanis in Japonia a mense Junio 1931 ad Junium 1934*]. 1 fig., tables. Jap. Journ. Astr. & Geoph., XII, 1, 89-108. Nat. Res. Counc. Tokyo (1934). **a - 1826**

Brief descriptions of the activities of the Japanese volcanoes in the period between June 1931 and June 1934, under the following headings: Tisima Zone, Nasu Zone, Norikura Zone, Huzi Zone, Aso Zone, Kirisiam Zone. Concluding remarks on the volcanic activities divided into 4 types.

**Visser S. W.** - Microseisms and Depressions in Western Europe and on the Ocean [*De microsysmatis et depressionibus in Europa occ. et in Oceano*]. Proc. K. Akad., XXXVII, 10, 738-746. Amsterdam (1934). **a - 1827**

Author shows that there is a close relation between microseisms in Western Europe and the presence of cyclones over the ocean and that a relation also exists between the state of the sea and microseisms, though not so close. The microsiesms are largest in the direction of the cyclone track. This correspondence can afford a satisfactory basis for weather prediction.

**Wood H. O., Allen M. W. & Heck N. H.** - Destructive and Near-Destructive Earthquakes in California and Western Nevada, 1769-1933 [*De terrae motibus destructoribus vel quasi-destructoribus in California et Nevada Occid., 1769-1933*]. U. S. Dpt. Comm. Coast & Geod. Surv., Spec. Publ., 191, 1-24. Washington D. C. (1934). **a - 1828**

This list of destructive and near-destructive earthquakes of California and western Nevada is intended for the use of those who have to deal in a practical way with earthquake problems. The convenient arrangement and concise description make readily accessible the information needed by these persons, but this list must not be considered as a substitute for the forthcoming catalogue prepared under the auspices of the Seismological Society of America. The list consists of a compilation of available information of all degrees of completeness and authenticity.

**Yamaguti S.** - Relation Between Cyclones and Earthquakes [*Correlatio inter cyclones et terrae motus*]. Bull. Tokyo Univ. Earthq. Inst., 12, 742-753. Tokyo (1934). **a - 1829**

« Deep » earthquakes rarely occur very near cyclonic centres, but a remarkable maximum frequency appears to exist about 900 km. distant from the cyclonic centres. There are certain azimuths referred to the direction of propagation of the cyclonic disturbance that seem to be favoured by different kinds of earthquake. There is also a probable positive correlation between the pressure gradient and the depth of epicentre.

**An.** - The Hawke's Bay (N. Z.) Earthquake of February 3, 1931 (G. W. T.) [*De terraemotu in baja Hawke (Nova Zelanda) die 3 mensis Februarii 1931 (G. W. T.)*]. Sc. Progr., XXIX, 113, 140-143. London (1934). **a - 1830**

Short recapitulation of the earthquake and its effects published in a report of N. Z. Journ. of Science and Technol. XV, 1, 1933.

# III.

# OCEANOGRAPHIA BIOLOGICA

## GENERALIA

### Instituta – Musea – Aquaria – Relationes annuae – Congressus et conferentiae – Biographiae – Expeditiones oceanographicae.

**Antipa Gr.** - Principes et moyens pour la réorganisation des Musées d'histoire naturelle [*De museis pro historia naturali nova ratione instituendis*]. 12 pl. h. t. Acad. Rom. Mem. Sect. Stiint., Ser. 3, IX, 12, 1-58. Bucuresti (1934). **b - 1**

Conférence faite à l'Académie de Roumanie dans la séance du 25 Mai 1934 concernant (I) l'origine, l'évolution et l'état actuel des musées d'histoire naturelle, l'organisation et les buts de ces musées, (II) l'organisation des collections et des dépôts destinés aux recherches scientifiques et (III) l'organisation des collections destinées au public. L'A. indique en général les moyens de mettre les musées d'histoire naturelle en état de remplir, avec plus de succès, leur importante mission scientifique, culturale et sociale.

**Blegvad H.** - Den danske biologiske Station. [*Statio biologica Danica*]. 39 (1934); 40 (1935). C. A. Reitzels Forl. København (1935). **b - 2**

Rapporto al Ministero della Navigazione e della Pesca.

**Böhnke K.** - Das Meeres-Aquarium: seine Einrichtung und Pflege [*Aquarium marinum. Constitutio et cura*]. xvi + 48 S. Verl. Aquarium Böhnke. Berlin (1935). **b - 3**

**Brinkmann A.** - Bergens Museums biologiske Stasjon [*De statione biologica ad Museum biologicum in* Bergen *pertinente*]. Bergens Mus. Årsber. 1934-35, 61-63. Bergen (1935). **b - 4**

New instruments. Research work on *Balanus balanoides, Foraminifera, Tunicata* and Parasites of *Decapoda;* scientific visitors working at the Station; publications.

**Brinkmann A., Johnsen S. & Knaben N.** Den zoologiske avdeling [*Sectio zoologica*]. 4 fig. Bergens Mus. Årsber., 1934-35, 21-29. Bergen (1935). **b - 5**

New acquisitions, Fishes: *Zygaena malleus; Crustacea: Portunus puber.*

**Bruce J. R.** - Report of Naturalist-In-Charge for 1934 [*Relatio redacta a naturalista praeposito*]. Mar. Biol. Stat. Port Erin, 47, 11-13. Liverpool (1934). **b - 6**

Summary of research work performed in 1934 at the Marine Biological Station on the Isle of Man, bearing upon the conditions and relations of inter–tidal life on the beach of Port Erin. On the physical side the work has consisted chiefly in the analytical treatment of the large body of data already accumulated. Because of the importance to beach organisms of shock and disturbance, an « exposure » factor has been evolved which takes into account not only the number of wind-days experienced at a given station, but also the total wind force and resulting shock.

**Clark Lyman H.** - Report on Marine Invertebrates [*Relatio de Invertebratis marinis*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College 1934-1935, 11-12. Cambridge U. S. A. (1935). **b - 7**

Study of large collections of Australian *Echinodermata* accumulated during the years 1929–1934 and identifications of Echinoderms for other institutions. New accessions of Crinoids and Holothurians.

**Colosi G.** - Cenni sulla vita e sull'opera di Paolo Enriques [*De vita operibusque* P. Enriques]. 1 fot., Arch. Zool. Ital., XX, 1-14. Napoli (1934). **b - 8**

Nota necrologica ed elenco delle pubblicazioni.

**Crossland C.** - The Marine Biological Station of the University of Egypt, at Ghardaqa (Hurghada) on the Red Sea [*Statio biologica marina ad Universitatem Aegyptianam in* Ghardaqa *pertinens*]. Bull. Fac. Sc., 3. Cairo (1935). **b - 9**

**Daniel R. J.** - Report for 1934. Isle of Man. [*Relatio pro A. 1934. Insula* Man]. Mar. Biol. Stat. Port Erin, 47, 36 pp. Liverpool (1934). **b - 10**

Reports of the Curator, the Naturalist and the Algologist. L. M. B. C. Memoirs. Edwards Forbes Exhibition. Regulations for workers. Memoranda. Financial statement. Faunistic notes. New faunistic and algological records.

**De Buen Fernando** - Resultados de la primera campaña biológica a bordo del « Xauen » en aguas de Mallorca (Abril 1933) [*Agitur de resultatibus a prima navigatione biologiae causa navi* « Xauen » *peracta ad Balearem majorem* (*mense Aprili 1933*)].

(Españ., rés. franc.). 6 fig. Trab. Inst. Españ. Oceanogr., 7-72. Madrid (1934). **b - 11**

Durante esta campaña fue efectuada con método serie de dragados, para recoger materiales, conjunto de especies que puedan presentarnos las faunas pobladoras de cada uno de los fondos, ya por su varia constitución o también por la profundidad sobre que se depositaron. Sondeos y pescas. Bionomia, batilitología, fáuna y flora de la Bahía de Palma, la isla de Cabrera, la planicie continentál de la costa Sud-Oeste de la isla de Mallorca, Bahías de Pollenza y Alcudia.

**Dons Carl** - Den zoologiske avdeling. Evertebratsamlingen. Havbunnsundersøkelser. Trykte arbeider [*Sectio zoologica. Collectio evertebratorum. Investigationes maritimae. Publicationes*]. 5 fig. Kgl. Norsk. Vidensk. Selsk. Mus. Årsber. 1933, 40-51. Trondhjem (1935). **b - 12**

Many new acquisitions, most of which have been taken during the expeditions of the biological Station, especially corals: *Amphihelia ramea, Primnoa resedæformis, Lophohelia* and *Alcyanium digitatum.*

**Gaarder T.** - Biokjemisk Laboratorium [*De laboratorio biochemico*]. Bergens Mus. Årsber., 1934-35, 74-75. Bergen (1935). **b - 13**

Cours, étudiants, recherches, publications.

**Germain Louis** - Le Professeur Louis Joubin [*Necrologia*]. 1 portr. Bull. Soc. Océanogr. France, XV, 84, 1457-1459. Paris (1935). **b - 14**

Nécrologie de M. le prof. Louis Joubin, l'illustre savant, professeur de malacologie du Muséum national d'Histoire naturelle et de l'Institut de S. A. S. le Prince Albert Ier de Monaco, conseiller technique de l'Office scientifique et technique des pêches maritimes, etc. Ses publications scientifiques.

**Gèza Entz** - A tenger biológiai kutatásának ujabb irányai [*De novis problematibus biologiae marinae*]. A Tenger, XXV, 5-8, 57-60. Budapest (1935). **b - 15**

**Gilson G.** - Combined North Sea and Eastern Channel Committee 1934 [*Comitatus coniunctus pro Mari Nordico Canalique Orientali. A. 1934*]. Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 2ème partie, Rapp. administr. (1934-35), 19-20. Copenhague (1935). **b - 16**

Introductory remarks on the work, difficulties and technical improvements. Belgium, England, France, Germany, Holland.

**Goda T.** - Seitaro Goto. Obituary [*Necrologia*]. 1 portr., Jap. Journ. Zool., VI, 3, i – ii. Tokyo (1935). **b - 17**

Brief account of the life and the scientific activity of Seitaro Goto, who was the world's authority on the morphology and embryology of Echinoderms and Coelenterates.

**Hagmeier A.** - Aufgaben und Bedeutung der Preussischen Biologischen Anstalt auf Helgoland [*De muneribus et momento Stationis biologicae borussicae* Helgoland *constitutae*]. Der Biologe, III, 7. München (1934). **b - 18**

Bericht über die Tätigkeit des Laboratoriums von dessen Direktor und seinen Mitarbeitern. Allgemeine Beschreibung des Laboratoriums, einzelne Berichte über die verschiedenen Arbeiten in Bezug auf die Ökologie der Bodenfauna und des Planktons, das Studium des Seetangs, Fischereiuntersuchungen und neue Landbildungan in den flachen Wasserflächen.

**Hobson A. D.** - Director's Report [*Relatio a Directore redacta*]. Dove Mar. Labor., Rep. Year end. July 31st, 1935, 3 Ser., 3, 5-10. Newcastle o. Tyne (1935). **b - 19**

A look upon the activity of the Dove Marine Laboratory during the year which ended on July 31st, 1935, which may be considered as a successful period in the history of the Laboratory, in which the research and other activities have been continued. A brief account is given of the work carried out especially on herring, salmon, conditioned responses in fish, pollution, and mussel survey.

**Kühn Alfred** - Karl Heider und ein Entwicklungsabschnitt der Zoologie [*De Carolo* Heider *deque brevi quadam relatione quoad progressus scientiae zoologicae.* (*Necrologia*)]. Naturwiss., XXIII, 46, 791-796. Berlin (1935). **b - 20**

Nachruf auf Prof. Karl Heider, geboren in Wien 1856, gestorben in Berlin am 2. Juli 1935. Der Hingeschiedene hat sich vorzugsweise der Meeresbiologie gewidmet und hinterlässt mehrere Veröffentlichungen über die Anneliden und die Rippenquallen.

**Le Danois Ed.** - Rapport administratif sur le fonctionnement du Comité du Plateau Continental Atlantique. Compte rendu de la séance tenue à Copenhague le 7 Juin 1934 [*Relatio ad administrationem pertinens de functione Comitatus pro platea continentali Oceani Atlantici. Acta consessus Hauniae habiti die 7 mensis Junii 1934*]. 1 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, Réun., XCIII, Rapp. Atlant. 1933, 5-7. Copenhague (1935). **b - 21**

Rapport Administratif rendant compte de l'activité du Comité. Liste des croisières effectuées par les soins des gouvernements adhérents. Compte-rendu sur les travaux exécutés par les membres du Comité, dont le rapport a été déjà fait au cours de la séance du 7 Juin 1934.

**Le Danois Ed.** - Première croisière du navire « Président Théodore Tissier ». Novembre 1933-Janvier 1934 [*De prima navigatione speculatoria navis* « Président Th. T. », *mense Novembri 1933*]. Rapp. Pr.-Verb., Cons. Expl. Mer., Réun., XCIII, Rapp. Atlant. 1933, 19-21. Copenhague (1935). **b - 22**

Composition de la mission scientifique embarquée sur le « Président Tissier ». L'itinéraire parcouru par le navire. Bref compte-rendu des sondages, du travail hydrographique, des pêches au chalut, des récoltes de plancton et des prélèvements de la faune ainsi que des essais de congelation effectués au cours de la croisière.

**Le Danois Ed.** - Plateau Continental Atlantique 1934 [*De platea continentali atlantica A. 1934*]. 1 tabl. Rapp. Pr.-Verb. Cons. Expl. Mer., Rapp. administr. (1934-35), XCIV, 2ème partie, 17-18. Copenhague (1935). **b - 23**

Tableau avec notes sur les croisières entreprises pendant 1934 par la Grande-Bretagne, l'Irlande, la France, l'Espagne et le Portugal. Deux annexes sur le Comité Atlantique et les croisières du navire « Président Théodore Tissier ».

**Le Danois Ed.** - A la Mémoire du Professeur Louis Joubin [*Necrologia*]. 1 portr. Rev. Trav. Off. Pêch. Marit., VIII, Fasc. 2, 30, 141-144. Paris (1935). **b - 24**

Prof. Louis Joubin, membre de l'Institut de France premier Directeur de l'Office des pêches maritimes (1919–1925), né en 1861 mort en 1935.

**Le Gall Jean** - La collaboration de la Marine Nationale aux recherches océanographiques [*De Marina Nationali eiusque contributione in inquisitiones oceanographicas*]. 5 fig. Mém. Off. Pêches Marit. (Sér. Spéc.) 9: Manuel Pêches Marit. Franç., 1, 134-139. Paris (1935). **b - 25**

Collaboration constante et précieuse de la Marine française et du Service Hydrographique à l'exécution des travaux océanographiques scientifiques en France. Les croisières du «Pourquoi-Pas?». La collaboration de l'armement particulier.

**Lönnberg & Gustafson Gunnar** - Från Kristinebergs Zoologiska station sommaren 1934 [*Notae a statione zoologica* Kristineberg, *aestate 1934*]. 3 fig. Fauna o. Flora, 4, 145-155. Uppsala (1934). **b - 26**

Results of investigations undertaken principally with a view to study the regrowth of *Zostera*. Remarks on other species found, usually occurring, and found for the first time in these waters, as *Pseudarchaster parelii*, *Aega tridens*. Special investigations on a coral reef of *Lophohelia prolifera*, the only Swedish reef of living corals.

**Mackintosh N. A.** - Recent Antarctic Research undertaken by the Discovery Committee. The R. R. S. Discovery II, 1933-35 [*De recentioribus investigationibus antarcticis a* Discovery Committee *peractis. Descriptio navis* « Discovery II », *1933-35*]. 2 figs. Nature CXXXVI, 3442, 629-630. London (1935). **b - 27**

Short account of the work accomplished with a special reference to the distribution of the whale population and factors concerned with it (plankton and hydrological conditions) in the vicinity of the Atlantic and Pacific ice edge.

**Matvejev B. S.** - Travaux du Laboratoire de Morphologie des Vertébrés de l'Institut pour la Recherche Scientifique en Zoologie (NIIZ) [*De operibus peractis in Laboratorio pro morphologia Vertebratorum, nomine NIIZ*]. (En russe). Abstr. Works Inst. Zool. Univ., 2, 29-30. Moscow (1935). **b - 28**

Bref résumé des travaux du laboratoire qui ont été surtout consacrés à la morphologie comparée des Esturgeons (*Acipenseridae*).

**Minio Michelangelo** - I naturalisti che studiarono la laguna fino all'inizio delle « ricerche lagunari » curate dal Reale Istituto Veneto di Scienze [*Agitur de peritis naturalium rerum qui lacunae studuerunt usque ad initium investigationum lacunarium a Regio Instituto Veneto Scientiarum susceptarum*]. 76 pp., 22 tav., « La Laguna di Venezia », III, 41. Tip. C. Ferrari. Venezia (1934). **b - 29**

Studio bibliografico storico relativo alle ricerche di zoologia e botanica che ebbero per oggetto la laguna veneta, dal '500 fino ad oggi.

**Müller Giuseppe** - L'aquario della città di Trieste. Descrizione dell'impianto e dettagli tecnici [*Aquarium Tergestinum. Descriptio eius constitutionis ac technicarum peculiaritatum*]. 8 tav., 6 fig. Atti Mus. Civ. St. Nat. Trieste, XII, 3-36. Trieste (1934-35). **b - 30**

L'Aquario possiede attualmente 27 vasche di mare del contenuto complessivo di circa 40.000 litri, oltre ad alcune vasche d'acqua dolce; è dotato di un impianto di riscaldamento che permette di tenere in vita anche pesci tropicali e di un piccolo laboratorio per eseguire delle semplici ricerche sperimentali e microscopiche.

**Parr A. E.** - Investigations in Co-operation with the Bingham Oceanographic Foundation of Yale University [*Investigationes peractae consociata opera institutionis* Bingham Oceanographic Foundation *ex Universitate Yalensi*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 25-27. Woods Hole, Mass. (1935). **b - 31**

Report on the oceanographic survey of the Caribbean area south of Gulf of Mexico, the continuation of the quantitative and biological study of the floating Sargasso weeds and the elaboration of the accumulated material. Some consideration as to the definite solution of the problems of the floating Sargasso weeds and their associated animal life. Summary of the study of the animal communities associated with Sargasso weeds continued by Martin D. Burkenroad, Assistant Curator of the Bingham Oceanographic Collection.

**Rayner G. W.** - The R. R. S. William Scoresby, 1934-35 [*Navis ad investigationes idonea* « William Scoresby » *1934-35*]. Nature CXXXVI, 3442, 630-631. London (1935). **b - 32**

Short account of the work accomplished (whale marking) in the Antarctic seas off Queen Mary Land, off Enderby Land and to the south of Bouvet Island.

**Revelle R.** - Preliminary Remarks on the Deep-Sea Bottom Samples collected in the Pacific on the last Cruise of the Carnegie [*Observationes priores quoad specimina a fundo marino Oceani Pacifici detracta, ultima perdurante navigatione navis* « Carnegie »]. Journ. Sediment. Petrol., V, 37-39. Tulsa, Okla. (1935). **b - 33**

**Richard F. & Sirvent L.** - Liste des opérations faites dans les parages de Monaco à bord de l'Eider et du Sténo pendant l'année 1912 [*Elenchus operum quae peracta sunt apud Arcem Monoeci in navibus* « Eider » *et* « Sténo », *A. 1912*]. Tabl., 67 pp. Bull. Inst. Océanogr., 684. Monaco (1935). **b - 34**

Tableaux indiquant numéro de stations, date, heure, localité, profondeur en mètres, température, nature du fond, procédé de récolte ou opération, bateau, observations.

**Sanzo Luigi** - Sull'attività scientifica dell'Istituto Centrale di Biologia Marina di Messina (1933-34). [*De operibus scientificis Instituti Centralis pro Biologia Marina Messanae.* (1933-34)]. Ric. Scient., 6, I, 2, 104-108. Roma (1935). **b - 35**

L'A. riassume l'attività scientifica svolta da lui e dai suoi collaboratori nei confronti dello studio di uova, larve e stadi giovanili di *Sternopthychidae* e *Stomiatidae* del Mediterraneo; delle ricerche sullo sviluppo degli Scopelidi, dei Macruridi, dei Murenoidi, Scomberoidi, Mugilidi, Chetognati, Ceriantari, Labridi, Gobidi, e sui problemi d'istologia e fisiologia dei Teleostei.

**Schmidt P. J.** - The Pacific Scientific Institute of Fisheries [*Institutum Scientificum Pacificum pro Piscatu*]. (In Russ.). Bull. Pacif. Comm. Acad. Sc. USSR, 3, 53-57. Leningrad (1934). **b - 36**

Paper sent to the Fifth Pacific Science Congress. Brief account on the organization and program of work of the Institute, founded in 1930 at Vladivostok for the study of the waters of the Far-East and their natural resources: (1) Section for the Study of the composition of the stock and the catch, (2) Chemical, micro-biological and industrial Section, and (3) Economical Section.

**Schmidt P. J.** - A List of the Marine Biological Stations on the Pacific [*Elenchus stationum pro Biologia marina Oceani Pacifici*]. (In Russ., Engl. Abstr.). Bull. Pacif. Comm. Acad. Sc. USSR, 3, 61-70. Leningrad (1934). **b - 37**

After a brief account of the history and development of the scientific biological investigations of the Pacific Ocean, author gives a list, completed by some information on the activity of the Marine Biological Stations on the Pacific in the following countries: USSR, Japan, Philippines Islands, Indo-China, China, Java, New Zealand, Australia, New Caledonia, Hawaii, United States of America, Canada.

**Skadovskij S. N.** - Travaux du Laboratoire de la Station d'Hydrobiologie et d'Hydrophysiologie de l'Institut de Recherche Scientifique en Zoologie en 1932 [*De operibus peractis in Laboratorio quod pertinet ad Stationem pro Hydrobiologia et Hydrophysiologia in Instituto pro Investigationibus Scientificis in Zoologiam. A. 1932*]. (En russe). Abstr. Works Zool. Inst. Univ., 2, 14–15. Moscow (1935). **b - 38**

Compte rendu abrégé des travaux conduits dans le Laboratoire et ayant trait à la physiologie des poissons, à l'influence du milieu extérieur sur les poissons, à l'effet des eaux des égouts et au problème de la stimulation de la maturation des produits sexuels chez les espèces commerciales de poissons.

**Smith W. C.** - Report of the Curator. 1934 [*Curatoris relatio*]. 1 table, 1 list. Mar. Biol. Stat. Port Erin, 47, 6–10. Liverpool (1934). **b - 39**

Brief account of the research carried out by students and research workers at the Station, the yield of the hatchery, the lobster culture, and the aquarium; list of students and research workers, 1933.

**Stacchini P.** - Il museo oceanografico e l'aquarium di Monaco [*Museum oceanographicum et Aquarium Arcis Monoeci*]. 26 fig., Vie d'Italia e del Mondo. 9, 1084-1100. Milano (1934). **b - 40**

**Stejneger Leonhard** - Department of Biology [*Sectio pro Biologia*]. 1 table. Rep. U. S. Nat. Mus., 1934, 26–39. Washington D. C. (1935). **b - 41**

Activity of the Department during 1934, with special regard to the material received, among which Fishes, marine Invertebrates, Mollusks, Corals, Helminths, Echinoderms occupy an important place; installation and preservation of collections, researches by members of the staff, distribution and exchange of specimen, number of specimens under department.

**Thamdrup H.** - Die marinbiologischen Untersuchungen des Skallinglaboratoriums in der Ho Bucht [*De investigationibus maritimis et biologicis Laboratorii* Skalling *in Baja* Ho]. Rapp. Pr.-Verb. Cons. Expl. Mer XVII, 3ème partie. Appendices (1934–1935), 57–59. Copenhague (1935). **b - 42**

Die Ho Bucht als nördlicher Teil des Wattenmeeres ist für diese marinbiologischen Studien sehr geeignet. Der Vf. teilt hier einen wohl ausgearbeiteten Plan für weitere Untersuchungen mit, wobei die Frage über die Nahrungszufuhr besonders beachtet wird. Zusammensetzung der Fauna; Vergleich mit anderen Gebieten des Wattenmeeres

**Trégouboff G.** - Michel Davidoff [*Necrologia*]. 1 Photo. Trav. Stat. Zool. Villefranche-sur-Mer 1933–1934, 3-12. Paris (1935). **b - 43**

Notice nécrologique sur M. Davidoff (avril 1852–décembre 1933). Vie, études, travaux.

**Vaouk Vale** - Das Biologisch-Ozeanographische Institut in Split [*Institutum pro Biologia et Oceanographia,* Split *constitutum*]. 1 Taf. Bull. Int. Acad. Jougosl. Sc. & Arts, Cl. Sc. Mathém. & Natur., XXVIII, 76-86. Zagreb (1934). **b - 44**

Auszug aus « Ljetopis », XLIII, 131–174; XLV, 128–145; XLVI, 129–138. Kurzer Bericht über die Gründung, Organisation und Tätigkeit des Biologisch-Ozeanographischen Instituts in Split.

**Velthof G.** - L'Institut Maritime d'Ostende - Het Zeewetenschappelijk Institut van Ostende [*Institutum Maritimum Ostendae*]. (En franç. & flam.). Rapp. Pêche Marit. 1932–1933, 25-29. Bruxelles (1934). **b - 45**

Activité de l'Institut pendant les années 1932–1933 qui comprend des séries d'investigations surtout des questions, présentant en océanographie comme en pêcherie, un intérêt d'actualité et parmi lesquelles sont décrites celles sur le « hareng guai », sur la biologie de l'esprot, sur les harengs de haute mer et sur la destruction du jeune poisson.

**Wohlenberg E.** - Die angewandte Meeresforschung an der Biologischen Anstalt c) Biologische Landgewinnungsarbeiten im Wattenmeer [*De oceanographia applicata in statione biologica. c) De operibus biologicis in* Wattenmeer, *ut dicitur in Mari Nordico*]. Der Biologe, III, 182–183. München (1934). **b - 46**

**Yessipov V. K.** - Biologische Arbeiten der letzten Jahre auf Novaja Semlja im Allgemeinen and speziell des Arktischen Instituts (Leningrad, USSR) [*De operibus biologicis proximos annos in* Novaja Zemlja *peractis. Agitur generatim et particulatim de operibus ab Instituto Arctico peractis* (*Leningradi URSS*)]. (In Deutsch., Russ. Rés.). 1 Karte. Arctica, II, 161-175. Leningrad (1934). **b - 47**

Kurze Uebersicht der seit 1921 auf der Novaja Semlja ausgeführten Forschungsarbeiten, mit besonderer Berücksichtigung der norwegischen Expedition von Holtedahl (1921), der russischen Expeditionen von R. L. Samojlowitsch (1921–1927), vom Hydrologischen Staatsinstitut unter der Führung von K. M. Derjugin (1923–1925), der Expeditionen des Ozeanographischen Instituts (1924–26), und deren des Arktischen Instituts (1929 u. 1930). Zum Schlusse werden eingehender die Ergebnisse der Expedition von 1931 des Arktischen Instituts besprochen; eine ausführliche Bibliographie der nach dem Ausbruche der Sovietrevolution herausgegebenen Arbeiten über die Flora und die Fauna von Novaja Semlja schliesst das Exposé.

**Zavattari E.** - Cesare Artom [*Necrologia*]. 1 fot., Arch. Zool. Ital., XXI, 1, I-XIII. Napoli (1935). **b - 48**

Nota commemorativo-biografica ed elenco delle pubblicazioni.

**E. F. P.** - Compte rendu des croisières effectuées en 1934 par le Laboratoire Maritime du Muséum [*Acta navigationum A. 1934 peractarum a Laboratorio maritimo ad Museum pertinente*]. Bull. Labor. Saint-Servan, XIII, 1-3. Rennes (1934). **b - 49**

Description de deux courtes croisières effectuées au cours de l'été 1934, à bord du voilier à moteur du Laboratoire, le « Saint-Maudez »; l'une sur le littoral des Côtes-du-Nord, et l'autre à Guernesey et dans les îles voisines. Programme, dragages exécutés, participants.

**F. W. W.** - Mrs. Eveline Spencer [*Necrologia*]. Canad. Fisherm., XXII, 2, 13-14. Gardenvale, Que. (1935). **b - 50**

Obituary.

**An.** - Polar Stations of USSR [*Stationes polo proximae ad URSS pertinentes*]. (In Russ. & Engl.). Bull. Arct. Ist., 8/9, 319-320 & 349-350. Leningrad (1934). **b - 51**

Brief account of the activity of the Polar Stations at Cape Uelen, in the Calm Bay (Franz–Joseph Land), and on biological work carried on at Dickson Island.

**An.** - Chiyomatsu Ishikawa [*Necrologia*]. I fig. Bull. Jap. Soc. Scient. Fish. III, 6, 2, Tokyo (1935). **b - 52**

Obituary on Dr. Chiyomatsu Ishikawa, Professor Emeritus at the Tokyo Imperial University, one of the most prominent figures in the history of sciences of the Japanese fisheries.

**An.** - Kintaro Okamura [*Necrologia*]. (In Engl. & Jap.). 1 photo, Bull. Jap. Soc. Scient. Fish. IV, 3. 2 pp. Tokyo (1935). **b - 53**

Obituary. Dr. Okamura, Professor Emeritus of the Imperial Fisheries Institute, was one of the founders of the present society and president-elect for April 1935 to March 1936. He has also been considered as the father of modern algology in Japan.

**An.** - Zoologische Station Neapel [*Statio zoologica Neapolitana*]. Naturwiss. XXIII, 12, 5. Berlin (1935). **b - 54**

Auskünfte betreffs eines Studienaufenthaltes. Neue Instrumente. Deutsche Forscher, die vom August 1933 bis Ende 1934 die Laboratorien der Station besucht haben.

**An.** - Hydrography in the British Admiralty [*De Hydrographia ad Britannicam classis Praefecturam pertinens*]. Science LXXXII, 2122, 186. New York (1935). **b - 55**

Short information on the construction of a magnetic survey ship for magnetic observations at sea, work of H. M. surveying ships during 1934, tidal stream survey and development of echo–sounding instruments.

**Biological Board of Canada** - Publications [*Publicationes*]. Biol. Board Canada, Ann. Rep. 1934, Append. V, 44-49. Ottawa (1935). **b - 56**

An « Annual Report », a scientific « Journal », occasional memoirs entitled « Canadian Antlantic Fauna », and « Progress Reports ». List of papers published during the year 1934 dealing with the work of the Biological Board: A. From the Atlantic Biological Station, B. From the Atlantic Fisheries Experimental Station, C. From the Pacific Biological Station, D. From the Pacific Fisheries Experimental Station.

**Biological Board of Canada** - Personnel 1934 [*Administrorum collegium*]. Biol. Board Canada, Ann. Rep. 1934, Append. VI, 50–52. Ottawa (1935). **b - 57**

List of the members of the Board, of the Editorial Board. Editorial staff; staff of the Stations operated by the Board.

**Comité Atlantique** - Séance du Comité Atlantique [*Consessus Comitatus Atlantici*]. Rapp. Pr.–Verb. Cons. Expl. Mer, Rapp. Atlant. 1933, XCIII, 32. Copenhague (1935). **b - 58**

Compte rendu, résolution de la séance du 7 juin 1934.

**Commission Internationale pour l'Exploration Scientifique de la Mer Mediterranée** - Séance du Bureau Central tenue à Paris le 15 novembre 1934 [*Consessus Officii Centralis Parisiis habitus die 15 mensis Novembris 1934*]. Rapp. Pr.–Verb. Cons. Expl. Scient. Méditerranée, IX (n. sér.) 15–28. Paris (1935). **b - 59**

Ordre du jour. Compte rendu des travaux effectués par les Gouvernements participants. Questions diverses. Situation financière.

**Conseil Permanent International pour l'Exploration de la Mer** - Séance du Comité du Plateau Continental Atlantique [*Consessus Comitatus pro Platea Continentali Atlantica*]. 1 Tabl. Rapp. Pr.–Verb. Cons. Expl. Mer, Rapp. Atlantique 1933, XVII, 6, 7. Copenhague (1935). **b - 60**

Compte rendu des travaux concernant la biologie et l'hydrologie. Rapport sur les croisières effectuées. Elections.

**Conseil Permanent International pour l'Exploration de la Mer** - Vingt–huitième réunion Copenhague Mai-Juin 1935 [*XXVIII*$^{us}$ *Consessus Hauniae. A mense Majo ad Junium 1935*]. Tabl. Rapp. Pr.–Verb. Cons. Expl. Mer, XVIV, 1$^{\text{ère}}$ partie. (Mai 1935), 1–55. Copenhague (1935). **b - 61**

Bureau, tableau des membres, etc. Ordre du jour de la réunion. Procès–Verbaux. Budget du Conseil et des publications à paraître pendant 1935–36. Liste des Comités. Recommandations du Comité Consultatif, Programmes et rapports des Comités des Secteurs et des autres Comités.

**Conseil Permanent International pour l'Exploration de la Mer** - Report of Administration 1934–1935 [*Relatio ad administrationem pertinens 1934-1935*]. Rapp. Pr.–Verb. Cons. Expl. Mer XCIV; 2$^{\text{ème}}$ partie. Rapp. administr. (1934-1935), 1–7. Copenhague (1935). **b - 62**

I General: Composition of the International Council for the Exploration of the Sea. Composition of the Bureau. Committees. Audit of Accounts. Income and Expenditure account for the year ending March 31st 1935. Statement of Pension Fund accounts 1934–35. Balance sheet 31st March, 1935. Meetings. II. Work of the Office in Copenhagen: Publications. Hydrographical Dpt. Statistical Dpt. Rules concerning publications.

**Enciclopedia Italiana di Scienze, Lettere ed Arti** - Fond. da G. Treccani [*Encyclopedia Italica Scientiarum, Litterarum et Artium. Johannes* Treccani *fund.*]. XXV–XXVI–XXVII–XXVIII. Roma (1935). **b - 63**

Voci: Oceani, oceanografia, pesca, piscicultura, plancton, porto, ecc.

**Imperial Marine Observatory** - Report of the Oceanographical Observations off the Uotuki-rin in 1934 [*Relatio observationum oceanographicarum apud* Uotuki-rin, *A. 1934*]. 3 figs., 4 tabl. 13 Pl. Journ. Oceanogr., VIII, 2, 201-212. Kobe (1935). **b - 64**

Metereological and Surface observations. Percentage of the Size of the Bottom Samples - Results of the quantitative studies of the Zooplankton and Phytoplankton in the Izu–Wan.

**Marine Biological Association of the United Kingdom** - Report of the Council for 1934. List of Annuel Subscriptions and Donations Paid During the year, 1st April, 1934, to 31st March,

1935. Balance Sheet and Income and Expenditure Account [*Consilii relatio pro A. 1934. Index subscriptionum annuariarum et donationum a mense Aprili 1934 ad Martium 1935*]. Journ. Mar. Biol. Assoc., XX, 463-491. Plymouth (1935). **b - 65**

The Council and Officers. The Plymouth Laboratory. The Aquarium. The Ship and Motor-boat. The Staff. Occupation of tables. The scientific work of the Plymouth Laboratory Staff (Physics and chemistry of the environment; Plankton; breeding experiments with *Gammarus*; fish and fisheries). Library. Published Memoirs. Finance.

**Museum National d' Histoire Naturelle** - Travaux faits dans les Laboratoires du Muséum National d'Histoire Naturelle pendant les années 1933-1934 [*De operibus peractis in Laboratorio Musei Nationalis Historiae naturalis a 1933 ad 1934*]. Bull. Mus. Nat. Hist. Natur., VII, 1, 7-50. Paris (1935). **b - 66**

Les travaux exécutés concernent entre autres: Poissons, Vers, Crustacés et Mollusques; les pêches et les productions coloniales d'origine animale; le Laboratoire Maritime à Saint-Servan; etc.

**Scottish Marine Biological Association** - Annual Report 1933-1934 [*Relatio annua 1933-1934*]. 25 pp. Glasgow (1934). **b - 67**

Office-Bearers 1934-35. Director's report. Research on plankton, molluscan ecology, growth rings in Invertebrates, deep mud-samples from Keppel Pier, tidal flow and littoral zonation, new records for the Clyde Sea-area. Publications, workers and educational work at the Station. Equipment and staff. Membership and subscribing bodies. Acknowledgments. Finance.

**Scottish Marine Biological Association** - Annual Report 1934-35 [*Relatio annua 1934-35*]. 24 pp. Glasgow (1935). **b - 68**

Office-bearers, 1935-36. Report of the Executive to the Council for the year to 31st March, 1935, Research: plankton, copepods in Loch Striven, size and weight of organisms eaten by fish. Shore ecology. Experiments on timber preservation in the sea; the growth of acanthias. *Anthosoma crassum* (Abildgaard), *Calocaris macandreae*. Publication - Workers at the Station - Educational work - Museum and Aquarium - Buildings, machinery, and equipment.

**Società Adriatica di scienze naturali di Trieste** - Approvazione del nuovo statuto [*Comprobatio novi statuti Societatis Hadriaticae Tergestinae naturalium Scientiarum*]. (R. D. 16 ottobre 1934-XII, n. 2379). Gazz. Uff. Regno d'Italia, 66, 1115. Roma (1935). **b - 69**

**Société Scientifique D'Arcachon. Université de Bordeaux** - Station Biologique. Compte Rendu Administratif. Année 1934 [*Statio biologica. Acta ad Administrationem pertinentia. A. 1934*]. 38 pp. Bordeaux (1935). **b - 70**

Extrait des Statuts et du Règlement. Liste des membres, Compte Rendu administratif. C. R. des travaux de la Station pendant l'année 1934. C. R. financier.

# METHODICE.

## Apparatus oceanographici et scientifici - Subsidia technica - Microscopia - Microphotographia.

**Aikawa Hiroaki** - On the Reliability of Plankton-net [*De securitate retium ad plancton piscandum*]. (In Jap., Engl. Rés.). 11 figs. 12 tabl. Bull. Jap. Soc. Scient. Fish., III, 6, 331-345. Tokyo (1935). **b - 71**

The A. recommends to employ the plankton-net for quantitative purposes and gives some suggestions as to its use.

**Allen W. E.** - The Problem of Methods in marine Plankton Investigation [*Quaestio de methodis pro investigationibus in plancton marinum*]. Int. Rev. ges. Hydrobiol. u. Hydrogr. XXI, 1934, 40-65. Akad. Verlagsg. Leipzig (1935). **b - 72**

A:s main conclusions of the problem are: necessity of more continuity of observations in representative localities, more care in organizing field work, possibility of comparison of methods applied by different workers.

**Bolin Rolf L.** - A Method of Preparing Skeletons of small Vertebrates [*Methodus ad scheletra parvorum vertebratorum paranda*]. Science LXXXII, 2132, 446. New York (1935). **b - 73**

Instead of cleaning the bones mechanically from flesh remains the A. had the flesh eaten off by the marine isopod *Cirolana harfordi*.

**Bull Herbert O.** - Studies on Conditioned Responses in Fishes. Part IV. A Note on a Sound-Insulated Building erected for the Purpose of these Experiments [*De reactionibus excitatis experimentali ratione in piscibus. Nota de apparatu quoad acusticam soluto ad has experientias ducendas*]. 2 figs. Armstrong College Dove Marine Labor, Rep. for the Year ending July 31st 1934. Third ser N. 2, 59. Cullercoats, Northumb. (1934). **b - 74**

On the necessity of eliminating noise. Description of the building.

**Franke A.** - Sammeln, Präparieren und Aufbewahren von Mikrofossilien [*Quo modo microfossilia colliguntur, parantur et servantur*]. 6 Abb. Senckenbergiana XVII, 3/4, 124-137. Frankfurt a. M. (1935). **b - 75**

Für die hier beschriebenen Methoden sind keine Laboratoriumseinrichtungen nötig.

**Gandolfi-Hornyold A.** - Méthodes pour tuer rapidement l'anguille [*Methodus ad Anguillas celeriter occidendas*]. Bull. Soc. Centr. Aquicult. et Pêche, XLI, 118-124. Paris (1934). **b - 76**

**Harvey H. W.** - Note concerning a Measuring Plankton-Net [*Nota de quodam rete ad plancton mensurandum*]. 4 fig. Journ. Cons. Expl. Mer X, 2, 179-184. Copenhague (1935). **b - 77**

Development of the apparatus and its application. Some experiences obtained for the determination of the phytoplankton content.

**Hecht Franz E.** - Foraminiferen unterm Photo-Objektiv [*De Foraminiferis et machina photographica*]. 8, Abb. Natur u. Volk, LXV, 7, 295–303. Frankfurt a. M. (1935). **b - 78**

Anweisungen und verschiedene Apparate für das Photographieren von Foraminiferen.

**Hecht Franz** - Einfache Geräte zum Photographieren von Mikrofossilien, insbesondere Foraminiferen [*De simplicibus apparatibus, microfossilia, quae praecipue ad Foraminifera pertineant, photographandi causa*]. 11 Abb. Senckenbergiana XVI, 2/3, 65-77. Frankfurt a. M. (1934). **b - 79**

Anweisungen bei der Verwendung des aus Mikroskop oder Binokular und Aufsatz-Kamera zusammengestellten Aufnahmegerätes. Beispiele von Aufnahmen.

**Hilger Adam** - The Hilger Vitameter A. [*De Avitametro* Hilger]. Publ. N. 151/5; 38 King's Rd., Camden Rd., London N. W. 1 (1934). **b - 80**

Booklet containing a description of the latest all-metal model for determining the Vitamin A content of cod and other fish-liver oils and concentrates. It is based on spectrophotometric method of test. A modified form has been designed for the estimation of Vitamin C.

**Nielsen Steemann E.** - Eine Methode zur exakten quantitativen Bestimmung von Zooplankton. Mit allgemeinen Bemerkungen über quantitative Planktonarbeiten [*Methodus determinationis quantitativae zooplanctonicae perficiendae. Observationes quoad opera quantitativa de plancton*]. 5 Abb., 5 Tab. Journ. Cons. Expl. Mer X, 3, 302-314. Copenhague (1935). **b - 81**

Beschreibung eines vom Vf. konstruierten Wasserschöpfers, der im Frühling 1935 auf einer Expedition nach Island mit dem M/S « Thor » durchgeprüft wurde. Die damit verbundene Methode ist für kleinere Zooplanktonten von der Grösse von Copepodennauplien bis zu der von erwachsenen Copepoden berechnet.

**Perruche Lucien** - Une nouvelle méthode de nettoyage des Diatomés [*Nova methodus ad Diatomeas detergendas*]. 1 pl. Bull. Soc. Franç. Microsc., IV, 1, 22-24. Paris (1935). **b - 82**

La méthode est basée sur la destruction des substances organiques par un mélange d'acides nitrique et perchlorique, avec ou sans acide sulfurique. Indications bibliographiques relatives à cette méthode.

**Raitt D. S.** - On the Use of Alizarin as a Stain for the Skeletal Structures of Fishes [*De utenda Alizarina ac colorante pro piscium structuris scheletricis*]. Journ. Cons. Expl. Mer X, 1, 75-80. Copenhague (1935). **b - 83**

The A. enumerates the workers, which have used the alizarin as a stain and reaches to the conclusion that the technique recommended is that of Tåning, i. e.: the staining of small fish after preservation in neutral formalin, in a weak alcoholic solution of alizarin, to which solution a trace of dilute acetic acid has been added.

**Russell E. S.** - Some Devices for the Manipulation of Marine Plankton Collections on Board Ship [*Nonnullae rationes ad elaborandas collectiones planctonicas in navibus*]. 3 fig. Journ. Cons. Expl. Mer X, 2, 173-178. Copenhague (1935). **b - 84**

Experiences gained during an oceanographical investigation off the west coast of Canada in 1934. Descriptions of an apparatus by which any number of equal sections of a vertical column of water may be sampled simultaneously for net plankton, and of a compact, automatic apparatus enabling the volume of phytoplankton samples to be reduced by filtration through paper.

**Scheffen W.** - Ein Universaltisch zum Auslesen von Foraminiferen in transparente Zellen [*Apparatus qui studium praebet Foraminiferorum in cellulis translucidis*]. 6 figs,, Senckenbergiana XVI, 4/6, 303-308. Frankfurt a. M. (1934). **b - 85**

Beschreibung von und Anweisungen für den Gebrauch dieses Apparates, dessen Hauptvorteil darin liegt, dass das Auslesen der Foraminiferen, ihr Einlegen in die Zelle, ihre Fixierung und endliche Untersuchung in einem Arbeitsvorgang zusammengefasst und jeder gefahrbringende Transport einzelner Exemplare vermieden werden können.

**Schmalhausen I. I.** - Zur Frage ueber Methodik der vergleichenden Analyse des Wachstums der Fische [*Quaestio de methodo pro analysi comparata accretionis piscium*]. (In Russ.). Zool. Zhurn., XIV, 4, 802-804. Moskva (1935). **b - 86**

Réponse et critique d'un article de V. V. Vasnetzov « Tentative d'une analyse comparée de la croissance linéaire des Cyprinidés » (V.: Zool. Zhur., XIII, 1934). L'A. défend sa méthode de détermination de la vitesse spécifique de la croissance des poissons et affirme qu'on peut obtenir des résultats tres précis.

**Smith Walton F. G.** - An Apparatus for Rearing Marine Organisms in the Laboratory [*Apparatus ad organismorum marinorum in laboratorio culturam idoneus* ]. 1 fig. Nature, CXXXVI, 3435, 345-346. London (1935). **b - 87**

This apparatus allows a continuous flow of fresh sea-water which facilitates the normal growth and development of the larvae thus giving the research worker a greater possibility of studying the different transition stages from larvae to adult.

**Vornatscher Josef** - Die Contaxmethode in der Hydrobiologie [*Methodus photographica* Contax *in hydrobiologia*]. 4 Abb. Photogr. u. Forsch., Hrsg. Zeiss. A. G., 3, 67-72. Dresden (1935). **b - 88**

Beschreibung einer neuen Kleinbildkamera Contax mit einem guten selbstverständlich gekuppelten Entfernungsmesser, die sich für möglichst viele Anwendungsgebiete eignet. Beispiele ihrer Anwendung.

**Walford I. A. & Winsor C. P.** - The Sampling Reliability of Plankton Nets [*De securitate in speciminibus planctonicis, retium auxilio colligendis*]. Woods Hole Oceanogr. Inst., App. Rep. 1934, 37. Woods Hole, Mass. (1935). **b - 89**

The present investigation has been undertaken in order to determine the minumum of variability in the sampling fluctuations for the plankton population. Being established that published data clearly do not fit to the theory of the relative simple laws of variability, it was felt necessary to collect data « ad hoc » under conditions ad carefully controlled as possible, and it seems, so far as can been judged by superficial examination, that the samples so obtained are satisfactory.

**An.** - Méthodes de coloration du Plankton en masse [*De coloratione planctonica, magna copia*]. Bull. Soc. franç. Microsc. IV, 4, 153-155. Paris (1935). **b - 90**

Fixation, moyens pour obtenir en extension les animaux très contractiles du plankton, exposition d'une coloration à la quinone qui donne de bons résultats.

# ANATOMIA ET PHYSIOLOGIA.

## Cytologia et histologia.

**Barigozzi C.** - Diploidismo e tetraploidismo in *Artemia Salina* di Margherita di Savoia [*Quaestio de diploidismo et tetraploidismo in «Artemia salina» ad* Margherita di Savoia *pertinente*]. Boll. Soc. Ital. Biol. Sper., IX, 3, 195-198. Napoli (1934). **b - 91**

Studio di genetica dal quale appare che le *Artemie* di Margherita di Savoia, sembrano in una condizione ideale per fornire una definitiva dimostrazione del legame genetico dei diversi biotipi di questo interessante Fillopodo. Il tipo diploide di *A. s.* è meno abbondante del tipo tetraploide.

**Barigozzi C.** - Diploidismo, tetraploidismo e octoploidismo nell'*Artemia salina* partenogenetica di Margherita di Savoia [*De diploidismo, tetradiploidismo et octoploidismo in «Artemia salina» partenogenetica ad* Margherita di Savoia *pertinente*]. 3 fig., 1 tav., Boll. Soc. Ital. Biol. Sper., IX, 906-908. Napoli (1934). **b - 92**

Secondo l'A. il biotipo di *A. s.* studiato da Artom è octoploide poichè avrebbe un numero di tetradi quadruplo del biotipo diploide. I biotipi partenogenetici di *A. s.* sarebbero quindi tre.

**Broussy J.** - Contribution à l'étude histologique du tégument de *Sipunculus nudus L.*, Géphyrien inerme [*Contributio in histologiam tegumenti speciei «Sipunculus nudus», Gephyreo inermi*]. C. R. Ass. Anat., XXIX, 531-536. Paris & Nancy (1934). **b - 93**

Description des cellules épidermiques du Siponcle qui ont une notable activité sécrétoire et des filaments, semblables à des formations ciliaires, auxquels on peut attribuer le rôle de canaliser les substances tégumentaires sécretées. Présence des vacuoles parmi ces cellules.

**Dehorne Armand** - Observations cytologiques sur une nouvelle espèce d'*Haplosporidium* parasite du coelome de *Nereis diversicolor* O. F. Müller [*Observationes cytologicae cuiusdam novae speciei ex Haplosporidiis parasiticae in coelomate speciei «Nereis diversicolor»*]. 15 fig., C. R. Acad. Sc., CC, 7, 589-592. Paris (1935). **b - 94**

Résultats d'observations faites sur des coupes pratiquées sur différents fragments d'une femelle de *N. diversicolor*, longue de 10 cm., infestée d'une espèce de *Haplosporidium*, protiste parasite d'invertébrés. Présence des plasmodies aux mêmes stades de la multiplication plasmodiale. Structure du noyau dans l'état de repos et ses modifications dans les différentes phases de la division mitotique. Nucléole et chondriome à origine paranucléaire. (L. S.).

**Dehorne Armand** - Caractères anatomiques et cytologiques des néphridies thoraciques de *Sabellaria* [*Caracteres anatomici et cytologici in S.*]. 1 fig., C. R. Acad. Sc., CC, 21, 1783-1785. Paris (1935). **b - 95**

L'A., à l'aide de coupes sériées, montre que l'interprétation donnée par Meyer en 1887 d'une analogie entre l'appareil renal des *Sabellaria* et l'organe rénal des Serpulides n'est pas exacte.

**Doyle Wm. L.** - Distribution of Mitochondria in the Foraminiferan, *Iridia diaphana* [*Mitochondria. Quaestio de distributione in Foraminifero «Iridia diaphana»*]. Science, LXXXI, 2103, 387. New York (1935). **b - 96**

The mitochondria flow out into the pseudopodia and in so doing meet and pass other mitochondria which are returning again to mingle with the other cytoplasmic constituents of the central mass. Their presence in the pseudopodia gives them ample opportunity for the interchange of substances with the surrounding medium.

**Fosi Vittoria** - Le modificazioni istologiche della pelle delle anguille nell'acquisizione dell'abito di nozze [*Modificationes histologicae in pelle anguillarum inter earum maturitatem sexualem*]. 2 tav., Arch. Zool. Ital., XX, 285-302. Napoli (1934). **b - 97**

L'A. ha studiato la distribuzione dei cromatofori e le modificazioni istologiche che subentrano nei tegumenti delle anguille durante il cambiamento di colore che si manifesta con la maturità sessuale. Osservazioni sulle anguille gialle in confronto alle anguille argentine, resistenza di quest'ultime ai cambiamenti dell'ambiente marino. L'aumento delle riserve adipose coincide con l'epoca della migrazione riproduttrice.

**Lams H.** - L'amorphisme nucléaire au cours de la spermatogenèse atypique de *Murex brandaris* [*Quaestio de amorphismo nucleari inter spermatogenesim atypicam in «Murex brandaris»*]. 20 fig., C. R. Ass. Anat., XXIX, 339-356. Paris & Nancy (1934). **b - 98**

Développement simultané de deux sortes de spermatozoïdes chez *Murex brandaris*. Formation des spermatozoïdes atypiques qui présentent le cytoplasme et le caryoplasme particulièrement mélangés entre eux.

**Leib E.** - Beiträge zur Physiologie und Pathologie der *Cladophora* - Zelle [*Cladophora. Contributiones in physiologiam et pathologiam cellulae*]. 20 Abb. Wiss. Meeresunters. hrsg. Komm. wiss. Unters. dtsch. Meere i. Kiel u. Biol. Anst. Helgoland N. F., XIX, 3, 8, 19 S. Kiel & Leipzig (1935). **b - 99**

*Cladophora rupestris*: Lokale Membranverdickungen, Durchwachsungen, Degeneration. *C. Sonderi*: Innere Membranproduktion, Abkapselung und Ausstossung des abgestorbenen Protoplasmas. Durchwachsungen. *C. fracta* und *C. glomerata*: Durchwachsungen, Plasmaabkapselung, Plasmoptyse. *Cladophora prolifera*. Bibl.

**Niiyama H.** - The Chromosome of the Crayfish, *Cambaroides japonicus* (de Haan) [*Chromosomata ad «Cambaroides japonicus» pertinentia*]. 4 figs., Journ. Fac. Sc. Hokkaido Imper. Univ., 6, III, 41-53. Sapporo (1934). **b - 100**

*Cambaroides japonicus* (de Haan) is one of the Crustacean Decapodes that has the greatest number of chromosomes. The process of spermatogenesis and mitosis of the spermatocytes do not support the idea of sexual chromosomes.

**Sinoto Y. & Yuasa A.** - Studies on the Cytology of reproductive Cells. I. On the Planocytes in five Forms of Myxomycetes. II. The Morphology of Planocytes of some marine Algae [*Studia cytologica cellularum pro reproductione. I. De Planocytis in quinque formis myxomycetum. II. De morphologia quoad Planocytes aliquarum Algarum*

*marinarum*]. (In Engl. Jap. Rés.). 19 + 6 figs., Bot. Magaz., XLVIII, 720-729; 928-933. Tokyo (1934). **b - 101**

Structure of the planocytes of five spp. belonging to *Ceratiomyxa, Physarella, Stemonitis, Comatricha* and *Dictydium*. The length of the body and flagellum are indicated in a table. Study of the cytology of the gametes or zoospores in *Enteremorpha, Ulva rigida* and *Leathesia difformis*.

**Stork H. A.** - Beiträge zur Histologie und Morphologie des Osphradiums [*Contributio in histologiam et morphologiam osphradii*]. 9 Abb., Arch. Néerl. Zool., I, 1/2, 71-79. Leiden (1934). **b - 102**

Untersuchungen von *Cardium edule, Mactra subtruncata, Philine aperta, Doridium carnosum,* und *Notarchus neapolitanus*. Ursprung und Fundort.

**Turchini J. & Broussy J.** - Contribution à l'étude histologique de la glande byssogène des Lamellibranches. *Mytilus edulis L.* [*Contributio in histologiam glandulae byssogenae in Lamellibranchiatis*]. 3 fig., Bull., Soc. zool. France, LIX, 528-534. Paris (1935). **b - 103**

Morphologie du canal excréteur, constitution des éléments sécréteurs d'origine épithéliale et leurs granulations.

**Weill Robert** - Le fonctionnement des colloblastes [*De colloblastis*]. 1 fig., C. R. Acad. Sc., CCI, 19, 850-853. Paris (1935). **b - 104**

En se basant sur ses études sur les colloblastes de *Cœloplana gonoctena, Pleurobrachia pileus, Hormiphora plumosa* et *Lampetia pancerina* l'A. conclut que le fonctionnement des colloblastes est sans rapport précis avec les caractères essentiels de leur organisation, et qu'ils ne sauraient représenter des appareils de préhension. Appendix: Remarques à propos de cette communication.

**Winterebert Paul** - Les mitoses irrégulières des mérocytes vitellins au cours de l'embryogenèse des Sélaciens (*Scylliorhinus canicula L.* Gill) [*De mitosibus irregularibus in merocytis vitellinis inter embryogenesim Selaciorum*]. C. R. Acad. Sc., CC, 1, 91-93. Paris (1935). **b - 105**

Dans la présente note l'A. ne s'occupe que des mérocytes du syncytium vitellin des Sélaciens qui dérivent, par l'intermédiaire des cellules profondes du blastodique, du premier noyau de segmentation, en laissant de côté ceux qui dérivent des spermes surnuméraires. L'étude de ces premiers au point de vue cytologique offre un intérêt considérable tant au point de vue de leur participation à la naissance et au développement de l'embryon, qu'en ce qui concerne la mise à l'épreuve de la continuité génétique des chromosomes et des centrosomes.

**Witschi Emil** - The Chromosomes of Hermaphrodites. I. *Lepas anatifera L.* [*Chromosomata in Hermaphroditis*]. 10 figs., Biol. Bull. LXVIII, 2, 263-267. Lancaster, Pa. (1935). **b - 106**

The study of the number of chromosomes in the different cells of *Lepas anatifera* renders it more than probable that this species is a primary hermaphrodite, i. e. the hermaphrodism with sex differentiation is not followed by chromosomal rearrangements in either sex.

## Apparatus musculorum atque apparatus scheletricus. — Quaestio de motu. — Vesica natatoria.

**Allis E. P. Jr.** - On a general Pattern of Arrangement of the cranial roofing Bones in Fishes [*De dispositione generali ossea in superiore parte cranii piscium*]. 17 figs., Journ. Anat., LXIX, 2, 233-291. London (1935). **b - 107**

General analysis, study of the development and comparative anatomy.

**Bargmann W.** - Die Zahnplatten von *Chimera monstrosa* [*De lamina dentaria in « C. monstrosa »*]. 17 Abb., Ztschr. Zellf. u. mikrosk. Anat., XIX, 537-561., Berlin (1933). **b - 108**

Histologie, Phylogenie und Ontogenie dieser Zahnplatten.

**Barrington E. J. W.** - Structure of the Caudal Fin of the Cod [*De structura pinnae caudalis in specie « Gadus morrhua »*]. Nature, CXXXV, 3407, 270. London (1935). **b - 109**

The A. enumerates the reasons for which he suggests the term « pseudocaudal » as the most satisfactory designation for the gadoid fin.

**Borri C.** - Simmetria e asimmetria nei Cetacei [*De symmetria et asymmetria in Cetaceis*]. 3 fig., Atti Soc. Tosc. Sc. Natur., XLIII, 5, 113-128. Pisa (1934). **b - 110**

Valore da attribuire a certi segni di asimmetria nei Misticeti. Un caso di vera asimmetria in una balenottera anormale; nuove osservazioni e considerazioni sulla interdipendenza fra l'asimmetria del cranio e quella di altre parti dello scheletro.

**Bull Herbert O.** - Studies on Conditioned Responses in Fishes. Part V. On the Controlling Influence of Normal Behaviour Traits upon Capacity to Form Experimental Conditioned Motor Responses Under Certain Conditions [*De reactionibus excitatis experimentali ratione in piscibus. Comparatio inter normales et possibiles experimentales reactiones motorias, particularibus conditionibus*]. 2 tabl., Journ. Mar. Biol. Assoc., XX-2, 365-370. Plymouth (1935). **b - 111**

Normal behaviour traits control the ability of Fishes to form conditioned motor responses. This is shown by a series of experiments upon various species of fish in which it is found that Pleuronectids are incapable of forming such responses for at least 200 associated presentations whilst other Fishes have done so in less than 40. The bearing of the results on current theories of animal learning is briefly discussed.

**Cochran Doris M.** - The Skeletal Musculature of the Blue Crab, *Callinectes sapidus* Rathbun [*De musculis scheletri in « C. sapidus »*]. 30 figs., Smiths. Miscell. Collections (Publ. 3282), XCII, 9, 1-76. Washington, D. C. (1935). **b - 112**

The muscles of the trunk and its appendages: the trunk; the eye; the appendages; the skeleton; the general structure of the crustacean appendage. The ossicles and muscles of the stomach; the alimentary system.

**Drach P.** - Phénomènes de résorption dans l'endosquelette des décapodes brachyoures, au cours de la période qui précède la mue [*Reabsorptionis phaenomena in endoscheletro in Decapodis Brachyuris, tempore mutationem praecedente*]. C. R. Acad. Sc., CCII, 26, 1424-1426. Paris (1935). **b - 113**

L'A. a déjà mis en évidence (v. « C. R. », CCI, p. 157, 1935) et évalué quantitativement les résorptions subies avant la mue par le squelette tégumentaire externe des décapodes brachyoures. Dans la présente note, après avoir rappelé la disposition générale du squelette interne, il envisage la résorption de l'endosquelette chez l'espèce *Maia squinado*, phénomène identique chez tous les brachyoures.

**Facciolà L.** - La vescica natatoria del *Physiculus Dalwigkii* Kaup [*Vesica natatoria*]. 2 fig., Atti Soc. Ital. Sc. Natur. e Mus. Civico Storia Natur., LXXIII, 3, 301-304. Milano (1934). **b - 114**

Caratteri morfologici e significato anatomico e funzionale della vescica natatoria.

**Faraggiana R.** - La vescica natatoria dei pesci [*De vesica natatoria piscium*]. 7 fig., Natura (Riv. Sc. Natur.), XXVI, 3, 83-99. Milano (1935). **b - 115**

Presenza, forma e funzione della vescica natatoria nei pesci teleostei, rassegna delle cognizioni attuali sul dibattuto problema della sua funzione.

**Fontaine M.** - Rapport entre l'ossification du squelette et l'état du calcium sanguin chez les poissons [*Correlatio inter scheletri osseificationem et calcii sanguinis conditionem in piscibus*]. C. R. Acad. Sc., CIC, 1452-1454. Paris (1934). **b - 116**

Il y a une relation nette entre l'état du squelette et le rapport du calcium adsorbable au calcium total du sang. Les valeurs les plus basses pour ce rapport ont été trouvées chez les Cyclostomes, celles légèrement supérieures chez les Sélacines et celles beaucoup plus élevées chez les Téléostéens. (L. S.).

**Frankenberg (von) G.** - Das Raketenprinzip in der belebten Natur [*De motus principio, cuius fundamentum in propulsione ponitur, ad naturam viventem applicato*]. 12 Abb., Umschau, XXIX, 52, 1034-1037. Frankfurt a. M. (1935). **b - 117**

Nur Wassertiere verwerten den Rückstoss. Zusammenziehbare Fallschirme. Muscheln schwimmen durch Rückstoss. Kombination mit Vernebelungseinrichtung bei Tintenfischen. Die Salpen als lebende Rückstossmaschinen. Die Rakete der Libellenlarve.

**Holst (von) E.** - Die Koordination der Bewegung bei den Arthropoden in Abhängigkeit von zentralen und peripheren Bedingungen [*Motus coordinatio in Arthropodis pro motibus centralibus et periphericis*]. Biol. Rev. Camb. Phil. Soc., X, 234-261. Cambridge (1935). **b - 118**

**Horstmann E.** - Untersuchungen zur Physiologie der Schwimmbewegungen der Scyphomedusen [*Investigationes in physiologiam motus natatorii in Scyphomedusis*]. Pflüger's Arch. ges. Physiol. Mensch. u. Tiere, CCXXXIV, 406-420. Berlin (1934). **b - 119**

Erhöhung der Bewegungsfähigkeit durch Lichtreizungen bei *Aurelia aurita*. Analyse des Bewegungsrhythmus. (S. auch dieselbe Ztschr. 421-431, 1934).

**Jones E. I., McCance R. A. & Shackleton L. R. B.** - The Rôle of Iron and Silica in the Structure of the Radular Teeth of Certain Marine Molluscs [*Ferri et silicii momentum quoad structuram dentium radulariorum in molluscis quibusdam marinis*]. Journ. Exp. Biol., XII, 59-64. Cambridge (1935). **b - 120**

**Magnan A. & C.** - Contribution à l'étude de la propulsion des Poissons [*Contributio in studendam piscium propulsionem*]. C. R. Acad. Sc., CCI, 26, 1429-1430. Paris (1935). **b - 121**

Mesure de la vitesse de l'eau qu'un poisson projette de l'avant vers l'arrière avec sa nageoire caudale. Méthode employée. Détermination du volume du liquide projeté. Calcul sur la vitesse initiale de l'animal (L. S.).

**Meierhans J.** - Le canal pneumatique et la vessie natatoire des Poissons physostomes [*Canalis pneumaticus et vesica natatoria piscium physostomatum*]. C. R. Acad. Sc., CC, 7, 582-584. Paris (1935). **b - 122**

Résultats des recherches entreprises dans le but de vérifier les affirmations de Rabaud et Verrier, selon lesquelles le canal pneumatique ne servirait à rien et ne jouerait aucun rôle dans l'évacuation du trop-plein de la vessie natatoire. L'Auteur démontre que lors d'une décompression, la vessie natatoire des poissons physostomes se vide par son canal pneumatique. La ligature de ce dernier supprime intégralement cette émission de gaz, ainsi que les conséquences qui en résultent pour la densité de l'animal.

**Meierhans J.** - Comportement de Poissons physostomes ayant subi l'extirpation de la vessie natatoire [*Ratio piscium physostomatum, vesica natatoria carentium, exstirpationis causa*]. 1 tabl., C. R. Acad. Sc., CC, 10, 859-862. Paris (1935). **b - 123**

L'Auteur conclut de ces expériences que les Poissons sans vessie ne dégagent aucune bulle de gaz par la bouche tant que la compression ne dépasse pas 40 cM. Hg. et que leur comportement est absolument différent de celui des Poissons normaux.

**Neu Wolfgang** - Die Schwimmbewegungen schnellschwimmender Hochseetiere [*De motibus natatoriis animalium marinorum quae celerrime natant*]. Naturwiss., XXII, 41, 699-700. Berlin (1934). **b - 124**

Kritische Bemerkung zu der von H. Judas (in Naturwiss. 19, 303, 1934) veröffentlichten Mitteilung mit hinzugefügter Bemerkung von demselben Vf.

**Neu Wolfgang** - Beitrag zur Bewegungsphysiologie der Lippfische (*Labridae*) [*Contributio in motus physiologiam*]. 3 Abb., Acta Adriatica, 6, 1-14. Split (1935). **b - 125**

Analyse der Körperform von *Labrus merula* L., *Crenilabrus*-Arten, *Coris Giofredi* Günth. und *C. julis* Günth. Die Lage des Schwerpunktes der Labriden. Vorwärtsbewegung, Schnellbewegung, Stabilisierungsflächen, Schwimmgeschwindigkeit.

**Neuville H.** - Remarques à propos du développement des dents du Cachalot [*Observationes circa accretionem dentium in « Physeter »*]. Ann. Sc. Nat., 10e sér. Zool., XVIII, 171-195. Paris (1935). **b - 126**

**Orton J. H.** - Biology of Shell-Movements of the Oyster [*De biologia motuum valvae Ostrearum*]. 1 graph., Science, LXXXII, 2118, 105-106. New York (1935). **b - 127**

Some information with graphical records from experiments on *Ostrea virginica* and *D. edulis* undertaken by Nelson, Galtsoff, Marshall Webb, Hopkins and the author. The adductor muscle and its function; causes of the movements.

**Pantin C. F. A.** - On the Excitation of Crustacean Muscle [*De excitatione musculi in Crustaceis*]. Journ. Exper. Biol., XI, 11-27. Cambridge (1934). **b - 128**

**Pax F.** - Die Untersuchung von Korallenskeletten im infraroten Licht [*Investigationes in structuram scheletricam coralliorum, lucis infrarubrae auxilio*]. Zool. Anz., CVI, 15-17. Leipzig (1934). **b - 129**

**Petit G. & Budker P.** - Sur la différenciation de dents cutanées, liée à la présence de cryptes sensorielles, chez quelques sélaciens [*De cutaneo-*

*rum dentium differentiatione quae colligatur cum cryptis sensorialibus praesentibus in Selacis quibusdam*]. C. R. Acad. Sc., CCI, 17, 737-740. Paris (1935). **b - 130**

Résultats de l'examen d'une série de foetus d'onze espèces de Sélaciens voisins du terme, et de peaux d'individus adultes, qui ont révélé la présence de spicules ou dents cutanées différentes de ceux qui constituent le revêtement du corps de ces animaux. Ces dents cutanées se présentent toujours par couples et se manifestent exclusivement au niveau de dépressions épithéliales dont le fond est occupé par un organe sensoriel. L'Auteur indique les différenciations morphologiques de ces dents en relation avec la présence de l'organe sensoriel sous-jacent, et qui ont, pour chaque espèce, leur marque propre.

**Petrovskaja O. A.** - Etude anatomique comparative de la ceinture scapulaire des poissons en relation avec le rapport génétique des groupes particuliers de poissons [*Studium anatomicum comparatum cinguli scapularis piscium pro correlatione genetica turmarum praecipuarum piscium*]. (En russe). Abstr. Works Inst. Zool., 1, 109-110. Moscow (1935). **b - 131**

Résultats des recherches qui ont permis de confirmer le rapport génétique de quelques groupes de poissons sur la base de l'étude de la structure du squelette définitif de leur ceinture scapulaire. Ces résultats ont conduit à la division des *Osteichtyes* dans le groupe des *Holosteoidea* qui réunit les *Ganoidea*, les *Holostea* et les *Teleostea* et le groupe *Chondrosteoidea*.

**Rabaud E. & Verrier M. L.** - Vessie natatoire et variations du volume des Poissons [*De vesica natatoria variationibusque quoad volumen in piscibus*]. C. R. Acad. Sc., CIC, 18, 888-890. Paris (1934). **b - 132**

Selon les Auteurs les variations du volume et de la densité des espèces examinées ne dependent pas de la vessie natatoire étant donné qu'elles se produisent aussi bien chez les poissons à vessie natatoire ou cystectomisés (*Julis Giofredi* Risso, *Conger vulgaris* L.) que chez ceux normalement sans vessie natatoire (*Scorpaena scrofa* L. et *Scyllium canicula* L) (L. S.).

**Rabaud E. & Verrier M. L.** - Vessie natatoire, densité et plan d'équilibre des Poissons [*Vesica natatoria, densitas et aequilibrium in piscibus*]. C. R. Acad. Sc., CIC, 1247-1249. Paris (1934). **b - 133**

La vessie natatoire n'aurait pas le rôle préponderant à lui accordé, c'est-à-dire de rendre égal, à la suite de variations de volume, la densité des Poissons à celle de l'eau de mer. Comparaison de la densité d'espèces de Poissons marins à vessie natatoire et d'espèces depourvues de vessie; action de la cystectomie (L. S.).

**Rabaud E. & Verrier M. L.** - Recherches sur la vessie natatoire (II°) [*Investigationes in vesicam natatoriam*]. 7 fig., Bull. biol. Fr. et Belg., LXIX, 87-136. Paris (1935). **b - 134**

Nouvelles vues sur la fonction de la vessie natatoire. Le gaz ne serait pas la sécrétion de la glande gazeuse, et il ne pourrait pénétrer dans la vessie par le conduit pneumatique. En outre il n'y a aucune concordance entre le canal pneumatique, le réseau vasculaire de la vessie, la présence et le développement morphologique de la glande gazeuse. Les variations du volume, de la vessie natatoire ne sont pas en rapport à la montée ou à la descente de l'animal, étant vu qu'il se produirait le phénomène invers de l'opinion classique: quand le Poisson monte, tous ses organes perdent du gaz.

**Rabaud E. & Verrier M. L.** - Vessie natatoire et canal pneumatique [*De vesica natatoria canalique pneumatico*]. C. R. Acad. Sc., CC, 9, 778-780. Paris (1935). **b - 135**

Réponse à une Note de J. Meierhans (v.: C. R. Acad. Sc., CC. 7, 582) dans laquelle ce dernier conteste les résultats des expériences des Auteurs: que le canal pneumatique joue un rôle pratiquement négligeable par rapport à celui de la vessie natatoire des Poissons. Les Auteurs communiquent encore quelques résultats expérimentaux qu'ils ont obtenus, comme preuve à l'appui de leur affirmation cidessus.

**Rabaud E. & Verrier M. L.** - L'ablation de la vessie natatoire des Poissons physostomes [*De ablatione vesicae natatoriae piscium physostomatum*]. C. R. Acad. Sc., CC, 13, 1142-1144. Paris (1935). **b - 136**

En présence des affirmations de F. Meierhans (voir C. R., CC, p. 859, 1935), que tout le gaz émis par un physostome vient exclusivement de la vessie, les Auteurs ont refait quelques essais sur l'ablation de la vessie natatoire de *Carassius auratus* et *Leuciscus rutilus*. Ces expériences ont permis de constater que les Poissons, dont la vessie est excisée, reprennent en quelques heures leur allure normale, et que le gaz qu'ils émettent a une origine extra-vésicale.

**Rabaud E. & Verrier M. L.** - Projection d'organes abdominaux et vessie natatoire [*Agitur de proiectione organorum abdominalium deque vesica natatoria*]. C. R. Soc. Biol., CXX, 1173-1174. Paris (1935). **b - 137**

*Trigla lineata* et *Trigla pini* ont été soumis à la décompression. Leur vessie natatoire est libre dans la cavité de l'abdomen et elle ne forme pas une projection dans la bouche (L. S.).

**Rakov V. A.** - Sur la question de l'ossification du crâne cartilagineux des *Acipenseridae* [*Quaestio de ossificatione cranii cartilaginei*]. (En russe). 1 tabl., Abstr. Works Inst. Zool., 1, 104-105. Moscow (1935). **b - 138**

L'Auteur démontre l'existence de formations osseuses dans le crâne cartilagineux des *Acipenseridae* adultes, et plus précisément des formations suivantes: *a) orbitosphenoideum; b) alisphenoideum; c) prooticum; d) episthoticum, e) occipitale laterale* et des éléments de quelques vertèbres antérieures. Les espèces étudiées sont: *A. güldenstädtii, A. stellatus* et *Pseudoscaphirhynchus kaufmanni*.

**Rendahl Hialmar** - Studien über die *Scleroparei*. I. Zur Kenntnis der kranialen Anatomie der Agoniden [*De Scleropareis. De cranii anatomia in Agonidis*]. 28 Abb., Ark. f. Zool., XXVI A. H. 3, 13, 1-106. Stockholm (1934). **b - 139**

Einleitende Bemerkungen über den Begriff « Panzerwangen » und verschiedene systematische Einteilungen der Knochenfische mit besonderer Berücksichtigung der Arbeit von Allis über die Schädelanatomie bei Vertretern der Familien, *Scorpaenidae*, *Cottidae*, *Triglidae* und *Dactylopteridae*, welche diese Arbeit durch die Behandlung vom Schädelbau eines Vertreters der Agoniden ergänzt. Der Schädelbau des *Hypsagonus quadricornis* Pali, Bemerkungen über seine Kopfmuskulatur, Uebereinstimmungen und Abweichungen der verschiedenen Knochen bei *Scorpaena*, *Cottus* und *Hypsagonus*.

**Sewertzoff A. N.** - Evolution der Bauchflossen der Fische [*De evolutione pinnarum ventralium in piscibus*]. 59 Abb., Zool. Jahrb. Anat., LVIII, 415-500. Jena (1934). **b - 140**

**Souché G.** - Morphologie des muscles élévateurs de la mandibule chez les Poissons. Nouvelles recherches [*De morphologia musculorum elatoriorum mandibulae in piscibus. Investigationes recentiores*]. 41 fig., Bull. Stat. Biol. Arcachon, XXX, 2, 197-275. Bordeaux (1934). **b – 141**

Ce travail qui fait suite à deux ouvrages déjà publiés traite des résultats fournis par 40 nouvelles espèces, portant le nombre d'espèces étudiés à 365.

**Ten Cate J. & Ten Cate-Kazejewa B.** - La coordination des mouvements locomoteurs après la section transversale de la moëlle épinière chez les Requins [*De coordinatis motibus locomotoriis post transversalem sectionem medullae spinalis in Squalis*]. Arch. Néerl. Physiol. Homme et Animaux, XVII, 15-24. La Haye (1933). **b - 142**

Expériences de section et d'extirpation de la moëlle épinière chez *Scyllium canicula* et *S. catulus*: l'excitation directe dans chaque partie du corps des nervs sensitifs qui prennent naissance dans l'autre partie, a grande importance dans l'activité, la coordination et la régularisation des deux parties du corps.

**Veil C.** - Différenciation structurale, chronaxie de constitution et de subordination des fléchisseurs et extenseurs des pattes de la Crevette grise [*Differentiatio structuralis, chronaxia constitutionis et subordinationis musculorum flectorum et extensorum crurum in « Palaemon »*]. C. R. Soc. Biol., CXV, 845. Paris (1934). **b - 143**

**Whitehouse R. H.** - Structure of the Caudal Fin of the Cod [*De structura pinnae caudalis in « Gadus »*]. 1 fig., Nature, 135, 3402, 70. London (1935). **b - 144**

The A. presents a sketch of the skeleton of the caudal extremity of the cod showing clearly that (on the contrary to what text books assert) it is heterocercal, as in the majority of Teleosts. He also points out that, in *Gadus minutus* at least, and doubtless in every other Gadid, a heterocercal stage is very obvious in specimens one inch long.

**Wiersma C. A. G. & Harreveld (van) A.** - On the Nerve-muscle System of the Hermit Crab I. The Contraction of the Abductor and the Adductor of the Claw [*De systemate nervoso musculari in « Eupagurus bernhardus ». I.$^{um}$ Contractio musculi abductoris atque adductoris chelae*]. 5 fig., Arch. Néerl. Physiol. Homme et Animaux, XIX, 3, 426-444. La Haye (1934). **b - 145**

The rapid contraction of the abductor as well as of the adductor of the claw of *Eupagurus* show a steplike increasing in height of contraction, when with indirect stimulation the duration or the strength of the current is continuously increased. The pseudo-chronaxies of these contraction steps in this crustacean stand in relations that may probably be expressed in simple numbers.

**Wiersma C. A. &. G. Harreveld (van) A.** - Inhibition of the Contraction of the Abductor of the Claw of *Eupagurus Bernhardus* [*De inhibitione contractionum musculi abductoris chelarum in « E. bernhardus »*]. Arch. Néerl. Physiol. Homme et Animaux, XIX, 458-468. La Haye (1934). **b - 146**

On the possibility of obtaining after a considerable latency an extension of the abductor muscle previously excited to contraction by means of short galvanic rectangular waves working on another nerve.

## Apparatus nervorum.

**Abramowitz A. A.** - The double Innervation of Caudal Melanophores in *Fundulus* [*De duplici innervatione quoad melanophoros caudales in « Fundulus »*]. 6 figs., Proc. Nat. Acad. Sc., XXII, 4, 233-238. Washington D. C. (1935). **b - 147**

Preliminary notice of experiments with diagrammatic figures of the reactions of the melanophores of a single fish from the time of denervation until almost complete regeneration of nerves to the caudal band. Support for the idea of two sets of nerves, discrete and opposite in action.

**Babkin B. P., Friedman M. H. F. & Mackay-Sawyer M. E.** - Vagal and Sympathetic Innervation of the Stomach in the Skate [*Vagi et sympatici innervatio in stomacho Rajae*]. 8 figs., Journ. Biol. Bd Canada, I, 4, 239-250. Toronto (1935). **b - 148**

The course and distribution of the vagus nerve and the anterior splanchnic nerve to the gastro-intestinal tract in *Raja diaphanes* and *R. stabuliforis* are described. Both these nerves produce movements of the stomach in the skate. Contractions produced by the stimulation of various branches of the vagus and splanchnic nerve. Effect of atropine and adrenaline.

**Beccari N.** - Intorno all'esistenza di uno strato sinaptico nelle connessioni di alcuni neuroni dei pesci [*De exsistentia stratus alicuius synaptici in connexionibus aliquorum neuronum piscium*]. Monit. Zool. Ital., XLV, 8, 230. Firenze (1934). **b - 149**

Nella connessione vestibolo-tegmentale come in quella vestibolo-mauthneriana, si può, mediante un perfezionato procedimento di tecnica citologica, colorire positivamente uno strato sinaptico che già negativamente era stato rivelato dall'impiego appropriato dei metodi basati sulla riduzione dei sali di argento. Uno strato simile esiste ed è stato dall'A. già in precedenza dimostrato nelle connessioni axo-dendritiche ed axo-assiali delle fibre del Mauthner.

**Boeke J.** - The autonomic (enteric) nervous System of *Amphioxus lanceolatus* [*De autonomo systemate nervorum in « A. lanceolatus. »*]. 16 fig., Quart. Journ. microsc. Sc., LXXVII, 623-658. London (1935). **b - 150**

Description of the nervous plexus with several ganglionary cellules in relation to the smooth muscles of the intestinal surface. Explanations as to these cellules and their importance.

**Bowen R. E.** - Movement of sensory Hairs in the Ear [*De pilis sensoriis in aure. Quaestio de motibus*]. Proc. Nat. Acad. Sc. U. S. A., XXI, 4, 233-234. Washington (1935). **b - 151**

Analysis of the movements of *Petromyzon marinus*, *Holocentrus ascensionis*, *Haemulon sciurus* and *Ameiurus nebulosus*.

**Chabanaud P.** - Le vomer, le complexe ethmoïdien et le trajet périphérique des nerfs olfactifs des Téléostéens soléiformes [*De vomere, complexu ethmoideo et peripherico trajectu nervorum olfactoriorum in Teleosteis*]. 7 fig., C. R. Acad. Sc., CCI, 5, 351-353. Paris (1935). **b - 152**

Le vomer et le complexe ethmoïdien ont été étudiés dans chacune des trois familles qui composent le sous-ordre des Téléostéens soléiformes: *Achiridae*, *Soleidae* et *Cynoglossidae*. Situation du nerf olfactif nadiral.

**Chauchard A., B., & P.** - Recherches sur la subordination nerveuse [*Investigationes in nervorum subordinationem*]. C. R. Soc. Biol., CXV, 1204-1206. Paris (1934). **b - 153**

De l'ensemble des observations sur *Carcinus maenas* et *Portunus corrugatus*, il ressort que le phénomène de la subordination nerveuse se traduit par une diminution de la chronaxie du neurone périphérique et par des variations de cette valeur sous l'influence de l'activité physiologique normale de leurs centres nerveux.

**Cornwall I. E.** - On the Nervous System of four British Columbian Barnacles (one new Species) [*De systemate nervorum in quattuor speciebus generis « Lepas » Columbiae Britannicae. (Species quaedam nova)*]. 5 figs., Journ. Biol. Bd Canada. I, 6, 469-475. Toronto (1935). **b - 154**

In *Lepas* six pairs of ganglia are distinct and separate; in *Balanus* two masses of fused ganglia occur while in *Mitella* an intermediate condition exists. *Balanus* (*Balanus*) *altissimus* n. sp. differs from *B. nubilis* in the interconnections of the nerves, and in details of labrum, maxilla and sixth cirrus. (A: s Abstr.).

**Edinger T. (Einl. von E. Stromer)** - Ueber Gehirne tertiärer Sirenia Aegyptens und Mitteleuropas sowie der rezenten Seekühe (Ergebnisse der Forschungsreisen Prof. E. Stromers in den Wüsten Aegyptens. V. Tertiäre Wirbeltiere) [*De cerebris in Sirenia tertiaria ex Aegypto et Europa centrali, cerebrisque in Sirenia tempore hodierno (Resultatus ex explorationibus Prof.* E. Stromer *per deserticas terras Aegyptianas. Vertebrata tertiaria*]. 3 Taf., 11 Abb., Abh. Bayer. Akad. Wiss. Math.–Nat. Abb. 1933, XX, 1–36. München (1933). **b - 155**

Äussere Struktur und endokraniale Abgüsse rezenter und fossiler *Halicore*, *Manatus*, *Rhytina*, *Halitherium*, *Protosiren* und *Eosiren*. Vergleich unter den verschiedenen Abgüssen, Uebereinstimmungen und Abweichungen der Gehirne verschiedener Arten.

**Evans H. M.** - The Brain of *Gadus*, with special Reference to the Medulla oblongata and its Variations according to the feeding Habits of different Gadidae I [*Cerebrum in « Gadus ». Agitur particulatim de medulla oblongata eiusque variationibus ex edendi consuetudinibus in differentibus Gadidis*]. Proc. R. Soc., CXVII, 367-399. London (1935). **b - 156**

Description of the medulla oblongata of the *Gadidae* and comparison with that of *Cyprinidae*. The variations are in conformity with the feeding habits modified by the type of dentition.

**Florentin P.** - Histo–physiologie comparée de l'hypophyse. L'excrétion de la colloïde hypophysaire chez les Téléostéens [*Histo–physiologia comparata hypophysis. Excretio substantiae colloidis hypophysariae in Teleosteis*]. Ann. Physiol. et Physicochimie biol., X, 963. Paris (1934). **b - 157**

Comparaison avec celle des Mammifères.

**Haines R. W.** - Epiphysial Growth in the branchial Skeleton of Fishes [*De formationibus quoad epiphysim in scheletro branchiarum piscium*]. 7 figs., Quart. Journ. Microsc. Sc., LXXVII, 1, 77-97. London (1934). **b - 158**

This epiphysial growth of which an analysis is given here is similar to that found among the Tetrapodes and is also the most primitive form of epiphysis found in bony Vertebrates.

**Irving Laurence, Solandt D. Y. & Solandt O. M.** - Afferent Impulses in the Nerves from the Branchial Vessels of the Dogfish [*De impulsibus afferentibus in nervis vasum branchialium Squali*]. Woods Hole Oceanogr. Instit., Rep. 1934, 21. Woods Hole, Mass. (1935). **b - 159**

Summary of a study of the afferent impulses in the branchial nerves of the dogfish, which has been examined by means of electrical recording; the results obtained show that the receptors in the branchial vessels of the dogfish correspond with the pressure receptors in the homologous carotid sinus of Mammals.

**Kagoshima S. & Yoshimura K.** - Ueber den Lichtsinn und Farbensinn des Fisches. II. Der Rheotropismus als Prüfungsmethode [*Sensus lucis et coloris in piscibus. De rheotropismo ac methodo inspiciendi*]. (In Jap.). 2 Abb., Nihon Gankwa Gk. Z., XXXVIII, 661-674. (1934). **b - 160**

Bericht über die von den Vf. Vf. in Bezug auf die Hell-und Dunkeladaptation der Fische ausgeführten Untersuchungen, welche aber keinen positiven Nachweis über den Farbensinn des Fisches aufgewiesen haben.

**Lugli G.** - Nervo VIII dei selaci. Via di accesso inferiore per le ricerche di fisiologia [*De nervo VIII° in Selacis. Accessus inferior pro investigationibus physiologicis*]. 3 fig., Arch. Sc. biol., XXI, 175-182. Napoli (1935). **b - 161**

In diverse specie di telaci il tronco dell'8° nervo può essere esposto in tutto il suo decorso togliendo la piastra di cartilagine che forma il tetto della bocca e il pavimento della cavità craniale. Nessun danno viene fatto ad alcuna importante struttura e non si lede alcun organo importante.

**Pantin C. F. A.** - The Nerve Net of the *Actinozoa*. IV. Facilitation and the « Staircase » [*De rete nervorum in «Actinozoa». IV. Facilitas neuromuscularis et contractio scalariformis*]. Journ. Exper. Biol., XII, 389-396. Cambridge (1935). **b - 162**

Analysis of the step-like contraction of the sphincter of *Calliactis* and the bell of Medusa, its causes. Discussion on the relation of different types of contraction.

**Parker G. H.** - An oil-soluble Neurohumour in the Catfish *Ameiurus* [*De neuroliquido solubili in oleo in « Ameiurus »*]. Journ. Exper. Biol., XII, 239-245. Cambridge (1935). **b - 163**

**Paulian Renaud** - Contribution à l'étude de la croissance relative du système nerveux central [*Contributio in studendam accretionem relativam systematis centralis nervorum*]. 3 tabl., 1 graph., Trav. Stat. Biol. Roscoff, 12, 33-49. Paris (1934). **b - 164**

Afin de voir si les Céphalopodes constituent une exception parmi les Poïkilothermes ou si, au contraire, la variabilité du coefficient de dysharmonie se retrouve dans d'autres groupes, l'A. a entrepris cette étude sur 25 espèces de Poissons et 5 espèces de Crustacés du genre *Portunus*. Historique. La croissance individuelle. La variation interspécifique. Tableaux indiquant: nombre d'individus, longueur du corps et de l'encéphale et diamètre de l'œil pour chaque espèce.

**Scharrer B.** - Ueber das Hanströmsche Organ X bei Opisthobranchiern [*De organo X* τοῦ Hanström *in Opistobranchiatis*]. 9 Abb., Pubbl. Staz. Zool. Napoli, XV, 1, 132-142. Napoli (1935). **b - 165**

Die von Hanström zum erstenmal bei *Squilla mantis* (1931) beschriebene und als Organ X bezeichnete inkretorische Gehirndrüse wird auch hier von der Vf. bei *Aplysia limacina* und *Pleurobranchaea meckeli* in der Form von

sekretorisch tätigen Nervenzellen nachgewiesen und beschrieben. Eine vollständige Erklärung dieses Sekretionsprozesses ist aber vorläufig nicht möglich.

**Scharrer E.** - Ueber die Zwischenhirndrüse von *Cristiceps argentatus* G. [*De glandula medii cerebri in « C. argentatus »*]. 5 Abb., Pubbl. Staz. Zool. Napoli, XV, 1, 123-131. Napoli (1935). **b - 166**

Der Sekretionsablauf in der Zwischenhirndrüse von *Cristiceps argentatus* G. wird in seinen einzelnen Phasen beschrieben. Bei *Cristiceps* kommt es zu einer Umwandlung der Nervenzellen des Nucleus praeopticus zu drüsenähnlichen Gebilden. Diese Umwandlung ist als ein physiologischer, nicht als ein pathologischer Vorgang zu betrachten. (Vf.).

**Stefanelli A.** - I centri tegmentali dell'encefalo dei Petromizonti [*De centris tegmentalibus encephali in Petromizontis*]. 6 fig., 2 tav., Arch. zool. Ital., XX, 117-202. Napoli (1934). **b - 167**

Dall'osservazione di numerosi cervelli delle tre specie dei petromizonti d'Italia (*Petromyzon fluviatilis, P. planeri, P. marinus*) l'A. ha potuto stabilire quale sia il nucleo e l'origine del nervo del sesto paio e come i centri tegmentali siano quelli formati da specifici elementi reticolati posti sull'asse centrale, nella zona motrice.

**Stefanelli A.** - Il nucleo dell'abducente nel *Petromyzon marinus* [*De abducentis nucleo in specie « P. marinus »*]. 5 fig., Arch. Ital. Anat. Embriol., XXXIV, 1, 122-134. Firenze (1935). **b - 168**

Ricerche anatomo-istologiche.

**Towarnicki R.** - Ueber die Blutgefässe des Gehirns von *Myxine glutinosa* L. [*De systemate vascolari cerebri in « M. glutinosa »*]. 1 Taf., Bull. Int. Acad. Polon. Sc. & Lettres. Cl. Sc. Mathém. & Nat., 6/7, B II, 261-272. Cracovie (1935). **b - 169**

Die ein-und ausführenden Blutgefässe der Gehirnhüllen. Die eigentlichen Blutgefässe des Gehirns, Vergleichende Anatomie der Gehirnfässe. Die Gefässvarietäten des Gehirns.

**Wilson R. B.** - The Anatomy of the Brain of the Whale [*De anatomia cerebri in « Balaenoptera sulfurea »*]. 35 figs., Journ. Comp. Neurol., LVIII, 2, 419-480. Philadelphia (1935). **b - 170**

General morphology of the entire brain with a special regard to the medulla oblongata and midbrain. Comparison with other *Cetacea*, and with *Carnivora* and *Ungulata*.

## *Organa sensuum.*

**Anelli D.** - Note morfologiche sulla struttura dell'occhiale in alcuni rettili e pesci [*Notae morphologicae de structura quoad ocularem aliquorum rectilium et piscium*]. 3 fig., Boll. Ocul., XIV, 7, 925-933. Firenze (1935). **b - 171**

L'A., esaminando gli occhiali di alcuni rettili e di alcuni pesci, rileva la differenza istologica esistente fra essi e fra i vari strati che li costituiscono, nonchè dimostra la presenza, al posto dello « spazio congiuntivale » di un tessuto lasso costituito da sottili fibrille.

**Bull O. Herbert** - Studies on Conditioned Responses in Fishes. Part III. Wave-length Discrimination in *Blennius pholis* L. [*Experientiae de reactionibus piscium. Pars III: Distinctio longitudinum undarum lucis in «B. pholis »*]. 3 tabl., Journ. Mar. Biol. Assoc., XX, 2, 347-364. Plymouth (1935). **b - 172**

From the experiments described here it is concluded that conditioned motor responses are readily formed in *Blennius pholis* L. by combining the presentation of a visual stimulus with an electric shock. Some remarkable results of the wave-length discriminations are reported here. The method is however only applicable to sedentary fishes.

**Capraro V.** - Ricerche sul cristallino dei Petromizonti [*Investigationes de crystallino in Petromyzontis*]. 8 fig., Arch. Ital. Anat. Embriol., XXXII, 4, 491-503. Firenze (1934). **b - 173**

Confronto della struttura del cristallino nelle due forme: *Petromyzon fluviatilis* e *P. marinus*, con quella dei vertebrati superiori. Vengono confermate le conclusioni di Rabl sul carattere specifico del Cristallino nelle diverse specie.

**Grave Caswell & Gordon Riley.** – Development of the Sense Organs of the Larva of *Botryllus Schlosseri* [*De progressibus quoad organa sensuum in larva speciei «B. Schlosseri »*]. 4 Tabl., Journ. Morphol., LVII, 1, 185-202. Philadelphia (1935). **b - 174**

The results of the investigation carried out by the AA. indicate that the statoliths of the different ascidian larvae are homologous: the direction eyes probably are not, but have evolved independently from a light-sensitive area in the primitive larva of a common ancestral ascidian. The larvae of *Molgula* and *Ammaroucium* possess no structure comparable to the sensory papillae of *Botryllus*.

**Griffin L. E.** - Some Details of the Structure of the Auditory Apparatus of *Squalus acanthias*, *S. Suckleyi* and *Mustelus canis* [*Particularitates quoad structuram apparatus ad audiendum*]. 9 figs., Copeia, 1, 29-32. New York (1934). **b - 175**

A comparative study.

**Hanström B.** - Neue Untersuchungen über Sinnesorgane und Nervensystem der Crustaceen. III [*Investigationes novae de organis sensuum ac systemate nervorum in Crustaceis*]. 31 Abb., Zool. Jahrb. Anat., LVIII, 101-144. Jena (1934). **b - 176**

Beobachtungen besonderer Bildungen im Auge bei *Amalopenoeus, Amphion, Acanthecephyra* und *Processa canaliculata*.

**Jackson L. H.** - Sense-Organs in *Malacobdella* [*Organa sensuum*]. 1 fig., Nature, CXXXV, 3419, 792. London (1935). **b - 177**

Some observations on a pair of minute structures on the head of *M. grassa* Müll. (parasitic upon *Pholas*) anterior to the ganglia which send a small nerve in their direction. They have the appearance of small pits on the dorsal surface, suggestive of sense-organs. Some considerations are given on the dimensions of this species.

**Koller G. & Studnitz v. G.** - Ueber den Licht-und Schattenreflex von *Mya arenaria* [*Lucis repercussiones et umbrae in « M. arenaria »*]. Ztschr. vgl. Physiol., XX, 388-404. Berlin (1934). **b - 178**

Bericht über Versuche von Erhöhung und Verminderung der Lichtstärke sowie die Wirkung verschieden gefärbten Lichtes auf die Reflexbewegungen von *Mya arenaria*.

**Pagano M.** - Sulla questione dell'olfatto nei Cetacei [*Quaestio de olfactu in Cetaceis*]. Atti del XXIX Congr. Soc. Ital. Laringol. Otol. Rinol., 67. Roma (1934). **b - 179**

Ricerche con varî metodi di colorazione ed esami a luce polarizzata praticate sull'organo periferico dell'olfatto del *Delphinus delphinus*, pur non escludendo la presenza di una porzione olfattoria in questi animali, fanno ammettere che la sede del senso olfattivo non sia da cercare a livello della mucosa delle cavità nasali, ma altrove.

**Rubio y Sama M.** - Sobre la estructura del órgano cordiforme de *Actinia equina* [*De structura organi cordiformis in « A. equina »*]. 4 fig., Rev. Españ. Biol., IV, 2/3, 61-68. Madrid (1935). **b - 180**

Estudio de la región glandular, de la región de las zooxantelas, de la región ciliata y de la región vacuolar. En los enteroides de *Actinia equina* se pueden distinguir la mismas regiones que las descritas por Duerden en *Phymantus* y suponerlas el distinto origen ectodérmico y endodérmico de la región ciliada y de las restantes.

**Sanz Echevenía J.** - Otolitos de los Peces Gadiformes de España [*De otolitis piscium Gadiformium ex Hispania*]. 3 lám., Bol. Soc. Españ. Hist. Natur., XXXV, 5, 245-274. Madrid (1935). **b - 181**

Nomenclatura. Forma de los otolitos. Zonas de crescimiento. Otolitos anormales. Fam. *Gadidae*, *Ranicipitidae*, *Merlucciidae*, *Macruridae*.

**Verrier M. L.** - La réfraction de l'œil des Poissons [*De refractione oculi piscium*]. Bull. Soc. Zool. France, LIX, 535-538. Paris (1935). **b - 182**

Au bout de nombreuses expériences tentées sur plusieurs Téleostéens et Sélaciens, l'A. a pu mettre en évidence une astigmatisme hypermétropique, compris entre 3 et 10 dioptries, à une exception près.

**Wald G.** - The Visual Purple System in Fish [*De purpura in videndi piscium systemate*]. Woods Hole Oceanogr. Instit., App. Rep. 1934, 36-37. Woods Hole, Mass. (1935). **b - 183**

Account of the results of an examination of the eye tissues of the common sea robin, *Prionotus carolinus*, which allow to establish that the visual purple of this fish is essentially similar to that in frogs and cattle, and is based upon changes in the identical carotenoids.

**Wetzel A.** - Chordotonalorgane bei Krebstieren (*Caprella dentata*) [*Organa chordotonalia in Crustaceis*]. 2 Abb., Zool. Anz., CV, 125-132. Leipzig (1934). **b - 184**

Der Vf. findet zum erstenmal den Chordotonalorgan bei den Krebstieren und zwar in jeder Antenne von *Caprella dentata*, *C. aequilibria* und *Proto ventricosa*.

**Wohlfahrt H. A.** - Das Ohrlabyrint des Schlammspringers (*Periophthalmus Schlosseri* Pall.). Ein Beitrag zur Kenntnis der Anatomie des Gobiidenlabyrinthes [*De labyrinto auriculari in « P. Schlosseri ». Contributio in cognoscendam anatomiam labyrinti in Gobiidis*]. 9 Abb., Ztschr. Anat. u. Entwickl.-gesch., CII, 2/3, 298-306. Berlin & München (1933). **b - 185**

Eingehende Beschreibung mit Abbildungen, Vergleich mit den Labyrinthen anderer *Gobiidae*. Der Mangel an verschiedenen Teilen, wie z. B. der canalis utriculosaccularis wird hier näher besprochen.

## Apparatus circulationis atque sanguis.

**Arvanitaki A. & Cardot M.** - L'onde lente et l'onde brève de l'électrocardiogramme auriculaire de la Torpille [*De unda lenta deque unda brevi in electrocardiogrammate auricolari Torpedinis*]. C. R. Soc. Biol., CXV, 47. Paris (1934). **b - 186**

Il est possible de séparer les deux variations de l'onde d'une électrocardiogramme faite sur l'oreillette d'une Torpille.

**Bateman J. B.** - Osmotic and Ionic Regulation in the Shore Crab, *Carcinus maenas*, with Notes on the Blood Concentrations of *Gammarus locusta* and *Ligia oceanica* [*Regulatio osmotica et jonica in specie « C. maenas ». Agitur etiam de sanguinis concentratione in speciebus « G. locusta » et « L. oceanica »*]. Journ. Exper. Biol., X, 355–371. Cambridge (1933). **b - 187**

**Benazzi M.** - Sull'automatismo del cuore dei Tunicati [*De cordis automatismo in Tunicatis*]. Pubbl. Staz. Zool. Napoli, XV, 1, 106–119. Napoli (1935). **b - 188**

Il cuore di *Ciòna* isolato e posto in acqua di mare conserva l'attività automatica per parecchie ore; si osserva però il fenomeno della inversione circolatoria. In una soluzione pura isotonica di NaCl il cuore di *C.* manifesta all'inizio un evidente effetto cronotropo positivo; in seguito il ritmo rallenta. Il KCl è invece tossicissimo. (A.).

**Biborski J.** - Les vaisseaux segmentaires et les vaisseaux des nageoires impaires de la Plie (*Pleuronectes platessa*) [*De systemate vasculari segmentali deque systemate vasculari pinnarum imparium*]. Acad. Pol. Sc. et Lettr., C. R. mens. Cl. Sc. Math. et Natur., 8, 6. Cracovie (1935). **b - 189**

Description du système des vaisseaux sanguins, comparaison avec celui des poissons bisymétriques. L'influence de la structure anatomique sur le trajet des artères et des veines.

**Boucher-Firly S.** - Sur la teneur en protéines du sérum d'Anguille et de Congre et ses variations au cours des changements de salinité [*De tenore quoad proteinas seri Anguillae et Congri eiusque variationibus ex salsedinis mutationibus*]. C. R. Soc. Biol., CXV, 952. Paris (1934). **b - 190**

Une augmentation de la salinité du milieu extérieur entraîne chez l'Anguille une diminution de la teneur en protéines du sérum. Ce phénomène ne se vérifie pas chez le congre, qui est stenohalin.

**Brinley F. J.** - The Effect of Caffeine upon the Cardiac Rythm of adult Fish Hearts [*De caffeina eiusque effectu in rythmum cardiacum piscium*]. 5 fig., Physiol. Zool., VII, 400–407. Chicago (1934). **b - 191**

On account of its effect on the vagus the solution of caffeine slackens the cardiac rythm or even produces a certain irritability in the cardiac muscle which may be easily shown by experiments when the heart is subtracted from the influence of the vagus.

**Echigo K.** - Die Agglutination – und Hämolysenwirkung des Aalblutes gegen die autogenen und homogenen Blutzellen [*De agglutinanti atque*

*haemolitico effectu sanguinis anguillae in cellulas sanguineas autogenas et homogenas*]. (In Jap.). 27 Tab., Juzenkwai Z., XXXVIII, 1974–2001, & 2350–2364. (?) (1933). **b - 192**

**Echigo K.** - Serologische Untersuchungen des Aalblutes [*Studia serologica sanguinis Anguillae*]. (In Jap.). 21 Tab., Juzenkwai Z., XXXVIII, 2620–2644 (?) (1933). **b - 193**

**Florkin M. & Blum H. F.** - Sur la teneur en protéins du sang et du liquide coelomique, des Invertébrés [*De tenore proteinarum in sanguine vertebratorum deque liquore coelomico*]. Arch. Int. Physiol., XXXVIII, 4, 353–367. Liège (1934). **b - 194**

La teneur en protéins du sang a été examinée chez 7 Lamellibranches marins, 1 Crustacé cirripède, 3 Crustacés decapodes et un Annélide polychète; la teneur en protéins du liquide coelomique chez *Sipunculus nudus*, *Phascolion strombi*, *Arenicola marina* et *Aphrodite aculeata*. Les résultats montrent qu'il y a une certaine relation entre la complexité du système circulatoire et la différence de la pression des capillaires centraux et que le liquide coelomique des Invertébrés constitue une cathégorie des liquides organiques tout à fait différents du sang le plus dilué par ses propriétés biochimiques, surtout par leur manque en protéins.

**Fontaine M. & Raffy A.** - Influence de la suroxygénation du milieu extérieur sur la réserve alcaline du sang des Poissons [*De influentia suroxygenationis medii ambientis exterioris in reservam alcalinam sanguinis piscium*]. C. R. Soc. Biol., CXV, 798. Paris (1934). **b - 195**

La suroxygénation de l'eau cause une élévation considérable de la réserve alcaline du sang chez les Poissons marins.

**Franklin Yeager J. & Tauber Oscar E.** - On the Hemolymph Cell Counts of Some Marine Invertebrates [*De numero cellularum hemolymphaticarum in Invertebratis quibusdam marinis*]. 1 Table, Biol. Bull., LXIX, 1, 66–70. Lancaster, Pa. (1935). **b - 196**

The total hemolymph cell counts of the 26 species of marine Invertebrates studied exhibit, like the total hemolymph counts of Insects, considerable interspecies and intraspecies variation. 1) The standard deviations given in table I indicate the latter. 2) The counts of adult *Limulus polyphemus* tend to exceed those of young *Limulus*. 3) The mitotic indices of the species studied were found to be less than one mitotically dividing cell in 2.000 hemolymph cells.

**Grafflin Allan L.** - Chloride and Total Osmotic Pressure in the Blood of Marine Teleosts [*De chloruro ac pressione osmotica totali in sanguine Teleosteorum marinorum*]. 6 Tabl., Biol. Bull., LXIX, 2, 245–258. Lancaster, Pa. (1935). **b - 197**

Studies upon pollack, cod, sculpin, flounder, mackerel, and conger indicate an appreciable physiological range of variation in both chloride and delta, with no detectable correlation between the two in any given species. It has further been demonstrated that both plasma chloride and delta are as a rule considerably elevated in Fishes caught on a long line or by net, and in Fishes bled only after a delay and rough handling. It is emphasized that this represents a serious source of error in studies upon normal osmotic pressure relationships and upon the relative tonicity of the body fluids in marine Teleosts.

**Ibañez G. O.** - Nota sobre la determinación de las proteinas del suero sanguineo y variaciones de la razón serina/globulina en el de algunos peces, por cambios de salinidad [*Nota de determinatione proteinarum seri sanguinei deque variatione correlationis* sierina/globulina *in quibusdam piscibus ex variationibus salsedinis*]. 2 tabl., Inst. Españ. Oceanogr., Notas y Resum., II, 92, 1–11. Madrid (1935). **b - 198**

Introducción – Separación de las proteinas del suero – Obtención del suero de lampreas y anguilas – Separacion de la serina e de la globulina – Mineralización del nitrógeno de las proteinas y su determinación por nesslerizzacion directa – Reactivo Nessler – Reactivo Nessler + alcali – Solución tipo de sulfato amónico – Cálculos.

**Ibanez G. O. & Fontaine M.** - Recherches sur les protéines du serum sanguin de quelques poissons migrateurs [*Investigationes in seri sanguinei proteinas aliquorum piscium migrantium*]. 2 tabl., Bull. Inst. Océanogr., 679, 1–5. Monaco (1935). **b - 199**

Étude sur la question, si la diminution de la teneur en protéines constatée chez les anguilles après leur passage d'eau douce en eau de mer entraîne aussi avec elle une diminution de la sérine et la globuline.

**Jullien A.** - La distension des cavités cardiaques appliquée à la détermination de leur structure chez l'huître [*Agitur de cavitatibus cardiacis quoad distensionem applicatam ad earumdem structuram determinandam in ostreis*]. C. R. Soc. Biol., CXIX, 605-607. Paris (1935). **b - 200**

La méthode générale d'examen consiste à pratiquer une distension ou dilatation de l'organe isolé, puis à le photographier à un grossissement suffisant. Les photographies d'organes ainsi montés sont très belles et mettent leur architecture sous les yeux d'une façon saisissante.

**Keys A. & Hill R. M.** - The Osmotic Pressure of the Colloids in Fish Sera [*De pressione osmotica substantiarum colloidalium in piscium seris*]. Journ. Exper. Biol., XI, 28–34. Cambridge (1934). **b - 201**

**Kharjkov I. I.** - L'albumine noire du sang des animaux marins (*Delphinapterus leucas*) [*De albumina nigra sanguinis animalium marinorum*]. 6 tabl., Rybn. Choz. Daljn. Vostoka, XIII, 1, 105–108. Khabarovsk (1935). **b - 202**

L'A. considère la possibilité d'utiliser l'albumine noire extraite du sang de *D. leucas* Pall., décrit le procès de son extraction et les propriétés du produit obtenu.

**Kobayashi S.** - The spectral Properties of Haemoglobin in the Molluscs, *Arca inflata* (Reeve) and *Arca subcrenata* (Lischke) [*De peculiaritatibus spectralibus quoad haemoglobinam in quibusdam molluscis*]. 2 figs., 3 tabl., Sc. Rep. Tôhoku Imp. Univ., 4 th. Ser., Biol., X, 2, 257-267. Sendai (1935). **b - 203**

Presence of haemoglobin shown in other types. Method of determination, spectro-photometric analysis. Comparison with other spp.

**Ohuye T.** - On the Coelomic Corpuscles in the Body Fluid of Some Invertebrates. I. –Reactions of the Leucocytes of a Holothurid, *Caudina chilensis* (J. Müller) to Vital Dyes [*De corpusculis coelomicis in plasmate aliquorum Invertebratorum. I. Leucocitorum reactiones in colorantes vitales in quodam Holoturide*]. 5 figs., Sc. Rep. Tôhoku

Imp. Univ., IVth Ser., Biol., IX, 1, 47-52. (Contr. Mar. Biol. Stat., 113, Asamushi Aomori–ken.) Sendai, Jap. (1934). **b - 204**

Results of an examination of the reaction of coelomic corpuscles of *C. chilensis* to trypan blue and carmine: the number of fusiform cells in the perivisceral fluid was increased.

**Racchiusa S.** - Sul potere emolitico del siero di sangue dei Teleostei [*De potentia haemolitica quoad serum sanguinis Teleosteorum*]. Num. tab., Mem. R. Comit. Talassogr. Ital., N. CCXVII, 3–36. Venezia (1934). **b - 205**

Esperienze sulle emolisine contenute nel siero di *Anguilla vulgaris, Cerna gigas, Pagellus mormirus, Uranoscopus scaber, Orcynus tynnus*, e *Xiphias gladius*, e determinazione del loro potere emolitico per i globuli rossi del sangue di bue. Risultati negativi hanno dato ricerche condotte su *Saurus, Mugil, Serranus, Maena, Dentex, Trachinus, Scorpaena* e *Sargus*.

**Roche J.** - La composition des hémocyanines et de l'hémérythrine du Siponcle [*De hemocyanina et hemerythrina earumque compositione in « Sipunculus »*]. Skand. Arch. f. physiol. Chem., LXIX, 87-96. Leipzig (1934). **b - 206**

Études et comparaisons sur *Helix aspersa, H. pomatia, Octopus vulgaris, Eledone moschata, Sepia officinalis, Carcinus maenas, Maja squinado*, et *Dromia vulgaris*.

**Roche J. & Jean G.** - Sur la composition en acides aminés des hémocyanines et d'une hémérythrine [*De compositione acidi aminici in hemocyaninis et in hemerythrina*]. C. R. Soc. Biol., CXV, 1645. Paris (1934). **b - 207**

Étude sur la composition en acides aminés de l'hémocyanine des Crustacés et de l'hémérythrine du Siponcle. Comparaison.

**Root R. W. & Green A. A.** - The Effect of Acidity on the Carbon Monoxide combining Power of Hemoglobin in the Blood of marine Fishes [*Actio aciditatis in capacitatem combinationis hemoglobinae cum CO in sanguine piscium marinorum*]. Journ. biol. Chem., CVI, 545–552. Baltimore (1934). **b - 208**

**Suzuki S.** - Oxalic Acid in the Blood of Different Kinds of Animals [*De acido oxalico in sanguine diversarum animalium specierum*]. Jap. Journ. Med. Sc., II; Biochem., II, 3, 427. Tokyo (1934). **b - 209**

Results of comparison between mammals and fishes (sea-bass and salmon) in account of their blood-content in oxalic acid. The contents lies between 2,8 and 3,9 mg. per 100 cc. blood. Prolonged fasting causes reduction of the amount in all cases.

**Takagi S.** - The Disposal of Worn–Out Erythrocytes by Intestinal and Branchial Epithelia in Lamprey [*De erythrocitis, ex quibus utilitas jam percepta est, in epithelio intestinali et branchiali Lampetrae*]. Annot. Zool. Jap., XIV, 4, 397. Tokyo (1934). **b - 210**

The erythrocytes and their debris and nuclei have been found in the intestinal and branchial cells of *Entosphenus japonicus* the cause of which is however still unknown.

**Takatsuki Shun-ichi** - Beiträge zur Physiologie des Austerherzens, 5: Ueber den Bau des Herzens unter besonderer Berücksichtigung seiner physiologischen Reaktionen [*Contributiones in physiologiam cordis ostreae. V. De cordis structura. Agitur particulatim de reactionibus physicis*]. Sc. Rep. Tokyo Bunr. Daig., sect. B, 31, 55-62. Tokyo (1934). **b - 211**

**Towarnicki M. R.** - Les vaisseaux sanguins dans le cerveau de *Myxine glutinosa* L. [*Venae in cerebro speciei « M. glutinosa. »*]. C. R. Acad. Pol. Sc. & Lettres, 6, 11. Cracovie (1935). **b - 212**

Description de ces vaisseaux et leur rapport avec les artères faciales. La vascularisation chez *Myxine* est très primitive.

**Turner Abby H.** - Blood-Protein of Fishes [*De sanguinis proteina in piscibus*]. Woods Hole Oceanogr. Instit., App. Rep. 1934, 33-34. Woods Hole, Mass. (1935). **b - 213**

In the study of plasma protein in marine Fishes, special attention has been paid to the colloid osmotic pressure of the plasma (or serum), and a considerable series of determination of total nitrogen and non-protein nitrogen in the blood has been carried out. The fish used were as follows: *Tautoga onitis*, L., *Prionotus carolinus* L., *P. strigatus*, Civ. & Val., *Paralichthys dentatus* L., *Pseudopleuronectes americanus*, Walb., *Opsanus tau* L., *Raia erinacea*, Mitch.

**Zunz E.** - Contribution à l'étude de la coagulation du sang chez les poissons [*Contributio in studendam coagulationem sanguinis in piscibus*]. Arch. Int. Physiol., XXXVII, 282-287. Liège & Paris (1933). **b - 214**

**Zunz E.** - La tension superficielle du plasma et du serum sanguins chez quelques animaux marins (Poissons, Crustacés, Cephalopodes) [*Tensio superficialis plasmatis et seri sanguinei aliquorum animalium marinorum (Pisces, Crustacea, Cephalopoda)*]. Arch. Int. Physiol., XXXVII, 288-303. Liège & Paris (1933). **b - 215**

## Apparatus respirationis.

**Bertolini F.** - Nuove ricerche sulla funzione respiratoria dei polmoni acquatici delle Oloturie [*Investigationes novae in functionem respiratoriam pulmonum aquaticorum in Holothuriis*]. 2 fig., Arch. Zool. Ital., XX, 579-590. Napoli (1934). **b - 216**

I polmoni acquatici delle Oloturie assorbono attivamente l'ossigeno sciolto nell'acqua e lo passano nel liquido celomatico dove ha una concentrazione superiore a quella che ha nell'ambiente esterno; questa attività è quasi certamente legata alla presenza di catalasi che si ritrovano negli estratti dei polmoni. Questi risultati confermano la teoria di Bohr che considera gli epiteli respiratori come epiteli ghiandolari e costituiscono la prima dimostrazione di funzione ghiandolare negli organi respiratori di animali acquatici.

**Bertolini F.** - Ricerche sugli organi respiratori delle Oloturie [*Investigationes in organa respirationis in Holothuriis*]. Atti R. Ist. Ven. Sc. Lett. Arti, XCIV, parte 2, 1, 9-11. Venezia (1934–35). **b - 217**

L'A. dimostra l'esistenza di una funzione respiratoria dei polmoni acquatici delle Oloturie, iniettando nel liquido celomatico di una *Holoturia tubulosa* D. Ch., resa asfittica, pochi cc. di una soluzione del leucoderivato del blu di

metilene, il quale si ossida nelle pareti dei polmoni acquatici prima che in ogni altro organo: le pareti dei polmoni acquatici si comporterebbero come una ghiandola, immagazzinando l'ossigeno nel liquido celomatico. La ricerca dei fermenti nelle pareti del polmone acquatico è risultata positiva per la catalasi.

**Florkin M.** - La fonction respiratoire du milieu intérieur dans la série animale [*De functione respiratoria quoad medium internum in serie animali*]. Ann. Physiol. Physicochimie Biol., X, 599–684. Paris (1934). **b - 218**

Étude comparée sur le cycle de respiration chez *Loligo pealei, Sipunculus nudus, Urechis caupo, Raia ocellata, Chelydra serpentina,* etc. Les moyens employés pour les échanges gazeux de la fonction respiratoire bienque très différents, aboutissent aux mêmes resultats. Rôle du « milieu intérieur » et son pouvoir d'absorption et de transport de $CO_2$ et d'oxygène.

**Fox H. M. & Johnson M. L.** - The Control of Respiratory Movements in *Crustacea* by Oxygen and Carbon Dioxide [*De inspectione, per oxygenum et $CO_2$, motuum respirationis in Crustaceis*]. Journ. Exper. Biol., XI, 1-10. Cambridge (1934). **b - 219**

**Gerard R. W. & Rubinstein B. B.** - A Note on the Respiration of *Arbacia* Eggs [*Nota de respiratione ovorum speciei* « *Arbacia* »]. Journ. Gen. Physiol., XVII, 3, 375-381. New York & Baltimore (1934). **b - 220**

Results of experiments undertaken with fertilized and unfertilized eggs of *Arbacia punctulata* compared with those obtained by Whitaker. Errors in determinations and their causes.

**Gudger E. W.** - Maxillary Breathing Valves in the Sharks *Chlamydoselachus* and *Cetorhinus* with notes on Breathing Valves in Thirteen Marine Teleosts [*De valvulis maxillaribus respirationis in* « *Chlamydoselachus* » *et* « *Cetorhinus* » *cum notis de valvulis respirationis in Teleosteis tredecim marinis*]. Journ. Morphol., LVII, 1, 91-104. Boston (1935). **b - 221**

Breathing valves are briefly described in thirteen marine Teleosts and in Sharks and Rays.

The function of breathing valves in Fishes is to prevent regurgitation of water during expiration as the fish swims along with partly open mouth. It is also correlated with feeding where the food is impaled on the teeth and held for swallowing, or where the fish feeds on pelagic organisms collected by swimming along with open mouth.

**Kryzanovsky S. G.** - Die Atmungsorgane der Fischlarven (*Teleostomi*) [*De organis respirationis larvarum in Teleostomis*]. 15 Abb., Zool. Jahrb. Anat., LVIII, 21-60. Jena (1934).

(—) Trav. Lab. Morphol. Evol. I, Lief. 2 (In Russ., dtsch. Rés.). Léningrad (1933). **b - 222**

Beschreibung der als Atmungsorgane dienenden Organe, ihre Entwicklung und Funktion bei den Larven von *Acipenser, Lepidosteus* und mehreren Süsswasserarten.

**Kryzanovsky S. G.** - Die Pseudobranchie-Morphologie und ihre biologische Bedeutung [*De morphologia in pseudobranchiis et eorum biologico momento*]. 15 Abb., 3 Taf., Zool. Jahrb. Anat., LVIII, 171-238. Jena (1934). **b - 223**

Ursprung und Entwicklung der Pseudobranchien bei den Lepidosteiden und den Teleosteern im Vergleich mit anderen Gruppen; verschiedene Typen von Blutgefässsystem der Pseudobranchien; Erörterung verschiedener Hypothesen über die funktionelle Bedeutung der Pseudobranchien.

**Laurie Alec H.** - Physiology of Whales [*De physiologia Balaenarum*]. Nature, CXXXV, 3420, 823. London (1935). **b - 224**

The A., who has just returned from a whaling expedition, describes personal observations indicating that whales do not fill their lungs with water when diving (to prevent caisson sickness due to liberation of dissolved nitrogen). His previous experiments with whale blood have shown that it has the property of using up dissolved nitrogen. (Nature's abstract on page 834).

**Marshall S. M., Nicholls A. G. & Orr. A. P.** - On the Biology of *Calanus finmarchicus*. Part VI. Oxygen Consumption in Relation to Environmental Conditions [*De biologia speciei* « *Calanus finmarchicus* ». *De consummatione oxygenii pro condicionibus ambientis*]. 7 figs., 11 tabl., Journ. Mar. Biol. Assoc., XX, 1, 1-27. Plymouth (1935). **b - 225**

Experiments have been made to determine the oxygen utilisation by male, female and stage V of *Calanus* under different environmental conditions, viz., temperature, hydrogen-ion concentration, oxygen content of the water, salinity, light. The bearing of these results on the distribution of *Calanus* is discussed. From the amount of oxygen used in respiration, calculations of the food required are made and these are compared with the results given by Pütter for *Calanus* and other Copepods.

**Nomura Shichiroku** - Studies on the Physiology of Ciliary Movement. II. Intracellular Oxidation. Reduction Potential limiting the ciliary Movement [*De physiologia motuum ciliarum. Potestas oxidationis et reductionis intracellularis ut limitatio motus ciliaris*]. Protoplasma, XX, 1, 85-89. Berlin (1933). **b - 226**

The ciliary movement of the gill tissue of *Pecten* derives its energy from glycolysis and when the intracellular redoxpotential falls down glycolysis would be suppressed and ciliary movement would come to rest.

**Raffy A.** - Physiologie des Amphibies. L'intensité respiratoire de quelques Crabes de différents niveaux en milieu aérien et aquatique [*Amphibiorum physiologia. Intensitas respiratoria in quibusdam Cancris, aëre et aqua*]. 2 tabl., Bull. Inst. Océanogr., 662, 1-4. Monaco (1935). **b - 227**

Les Crabes étudiés par l'A. (*Grapsus marmoratus, Carcinus moenas, Cancer pagurus, Portunus puber* et *P. depurator*) ne sont pas des amphibies parfaits. La vie aquatique semble leur être favorable au point de vue respiratoire, mais la vie aérienne, impossible pour les espèces nageuses, n'est que temporaire même chez les *Grapsus*. La présence d'eau dans la chambre branchiale est sans doute nécessaire au bon fonctionnement de leurs organes respiratoires qui n'ont pas encore acquis la spécialisation morphologique des espèces réellement terrestres.

**Wells N. A.** - The Influence of Temperature upon the Respiratory Metabolism of the Pacific Killifish, *Fundulus parvipinnis* [*De influentia temperaturae in metabolismum respiratorium*]. Physiol. Zool., VIII, 196-227. Chicago (1935). **b - 228**

**Wislocki G. B.** - The Lungs of the Manatee (*Trichechus latirostris*) Compared with those of Other Aquatic Mammals [*De pulmonibus speciei* « *Trichecus latirostris* » *comparatis cum pulmo-*

*nibus animalium aquaticorum*]. 2 pl., 1 table, Biol. Bull., LXVIII, 3, 385-396. Lancaster, Pa. (1935). **b - 229**

The present report concerns the finer structure of the manatee and brings out the close similarity in lung structure between the two families of *Sirenia*. It also demonstrates the marked dissimilarities between the Sirenian lungs and those of the Porpoises belonging to the order of Whales. Although there are certain distinctive features common to the lungs of the aquatic Mammals, the pronounced differences found to exist indicate that various avenues of specialization have been followed in adapting to aquatic modes of life.

**Zenkovitch B. A.** - La respiration et les mouvements qui l'accompagnent chez les grands Cétacés [*De respiratione, motibusque qui cum eadem colligantur in magnis Cetaceis*]. (En russe). Rybn. Choz. Daljn. Vostoka, XIII, 1, 67-82. Khabarovsk (1935). **b - 230**

L'A. communique quelques données sur la nature de la « fontaine » d'eau que les baleines éjectent au cours de leur respiration, sur les mouvements inhérents à la respiration et à l'expiration, sur le plongeon qui suit la respiration, sur la trace huileuse que les baleines laissent sur la surface de l'eau à l'endroit où elles ont plongé, ainsi que sur l'habitude des baleines de se reposer sur la surface de l'eau. Pour conclure l'A. établit une comparaison entre tous les mouvements décrits caractéristiques pour chacune des différentes espèces de baleines.

## *Effectus salinitatis.*

**Barnes T. Cunliffe** - Salt Requirements and Orientation of *Ligia* in Bermuda. III [*Salis necessitas atque orientatio in « Ligia » in* Bermuda]. 5 tabl., 2 figs., Biol. Bull. LXIX, 2, 259-268. Lancaster, Pa. (1935). **b - 231**

Observations undertaken to study where the release of the young takes place; their orientation in the sea; reactions to different salt solutions; experiments on the average and maximum longevity of adult and young specimens.

**Hansborough L. A.** - Histological Changes produced by Fresh Water upon Isolated and grouped *Procerodes*, a Marine Turbellarian [*Mutationes histologicae, aquae dulcis causa, in exemplaribus speciei « P. wheatlandi » liberis seu cumulatis*]. 17 figs., Protoplasma XX, 4, 516-529. Berlin (1934). **b - 232**

When placed in tap-water specimens of *Procerodes wheatlandi* form clusters probably in order to expose a lesser amount of surface and thus protect themselves against hypotonicity.

**Hevesy (von) G. & Hofer E.** - Der Austausch des Wassers im Fischkörper [*Aquae permutatio in piscis corpore*]. Hoppe-Seyler's Ztschr. Physiol. Chem., CCXXV, 1, 28-34. Strassburg (1934) **b - 233**

Durch die hier beschriebenen Versuche ist bestätigt worden, dass der Austausch mit dem umgebebenden Wassermedium sehr schnell vor sich geht. Beitragende Faktoren.

**Löwenstein O.** - The Respiratory Rate of *Gammarus chevreuxi* in Relation to Differences in Salinity [*De velocitate respirationis in « Gammarus chevreuxi » pro differentibus salinitatibus*]. Journ. Exper. Biol., XII, 217-221. Cambridge (1935). **b - 234**

The study concerns the brackish water amphipod *Gammarus chevreuxi* in 25 p. c. sea water and sea water.

**Sayles L. P.** - The Effects of Salinity Changes on Body Weight and Survival of *Nereis virens* [*Effectus variationum salinitatis pro corporis pondere et surviventia speciei « Nereis virens »*]. 7 graph., Biol. Bull., LXIX, 2, 233-244. Lancaster, Pa (1935). **b - 235**

Experiments undertaken to study: Changes in body weight of Worms following transfer directly to various dilutions. Effect of return to sea water after a period in dilutions. Effect of return to dilutions after a period in sea water. Effect of gradual dilution of external medium. Effect of transfer to fresh water from various dilutions of sea water. Discussion.

**Schreiber B.** - Esperimenti e considerazioni sul significato funzionale dell'apparato di Weber degli Ostariofisi [*Experientiae et considerationes quoad significationem functionalem apparatus* Weber *nomine in Ostariophysis*]. Boll. Zool., VI, $^1/_3$, 67-70. Napoli (1935). **b - 236**

L'A. ammette che l'apparato di Weber funzioni da smorzatore verso le variazioni della pressione idrostatica, con un meccanismo a tipo protettivo rispetto alla perilinfa per improvvise e forti variazioni di quella. Così la regolazione idrostatica della pressione idrostatica negli Ostariofisi avverrebbe per mezzo di due distinti meccanismi: 1° primario, a funzione direttamente protettiva (smorzatore), e 2° secondario, fisiologico, di adattamento alla pressione esterna.

## Apparatus digestionis atque alimentatio.

**Bayliss L. E.** - Digestion in the Plaice (*Pleuronectes platessa*) [*De digestione in specie « Pleuronectes platessa »*]. 6 figs., 7 tabl., Journ. Mar. Biol. Assoc., XX, 1, 73-91. Plymouth (1935). **b - 237**

Study of the digestion of proteins and fats from: the stomach, intestine, bile and liver. The hydrogenion concentration of the contents of the alimentary canal. The relative potency of the extracts from various organs.

**Battle H. I.** - Digestion and Digestive Enzymes in the Herring (*Clupea harengus* L.) [*De digestione atque enzymatis digestivis in « Clupea harengus »*]. 6 figs., 7 tabl., Journ. Biol. Bd Canada, I, 3, 145-157. Toronto (1935). **b - 238**

Crustacean food is partially broken down and digested in the caecum of the stomach of the herring. It becomes more finely divided in the pyloric sac and consists of an oily chyme, intermingled with chitin, mucus and bacterial clumps in the pyloric caeca and intestine. Influence of temperature on the digestive power of pepsin from the stomach and trypsin from the pyloric caeca. Enzymes secreted from the stomach, pyloric caeca, and intestinal mucosa; the bile has some amylolytic properties.

**Bertolini F.** - Sulla funzione escretoria dell'intestino delle Oloturie [*De functione excretoria intestini Holothuriarum*]. Boll. Soc. Ital. Biol. Sper., 10, 1268-1269. Napoli (1934). **b - 239**

Iniettando nel celoma di *Holothuria tubulosa* Gml. e *Synapta inhaerens* Dub. colori colloidali elettronegativi a forte dispersione (trypanblau e fenolsolfonftaleina), e colori con particelle di media dimensione (blu di Prussia e inchiostro di china), l'A. dimostra che l'intestino degli Oloturoidi ha funzione escretoria.

**Bertolini F.** - Ricerche sui Selaci mangiatori di plancton [*Inquisitiones de Selacis planctophagis*]. 2 fig., Boll. Soc. Ital. Biol. Sper., 10, 1269-1271. Napoli (1934). **b - 240**

L'A. studia il meccanismo della nutrizione nell'*Aodon edentulus*, che si nutre di minutissimi planctonti, in prevalenza Eufasiacei e dà una descrizione anatomica e funzionale dell'apparato digerente di questo animale.

**Bond R. M.** - Digestive Enzymes of Copepods [*De enzymatis digestivis in Copepodis*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 20. Woods Hole, Mass. (1935). **b - 241**

Summary of investigation on the digestive enzymes of *Calanus finmarchicus*, the results of which appeared in the «Biol. Bull.», LXVII, 461–465, 1934.

**Clarke G. L. & Gellis S. S.** - The Nutrition of Copepods in Relation to the Food–cycle of the Sea [*De alimento Copepodorum pro cyclo cibi in mari*]. 4 tabl., Biol. Bull., LXVIII. 2, 231-246. Lancaster, Pa. (1935). **b - 242**

In view of the importance of Copepods in the economy of the sea and the inconclusive and contradictory nature of previous observations on their food, feeding experiments were undertaken using *Centropages, Labidocera, Acartia,* and particularly *Calanus*. These experiments indicate that *Bacteria* and other constituents of the nannoplankton may be an important food for Copepods in the sea. Diatoms and other larger organisms may possibly serve as a source of nourishment indirectly through the *Bacteria* etc., which feed upon them and their excretions.

**Dennell R.** - Feeding Mechanism in *Diastylis* [*De mechanismo alimentari in «Diastylis Bradyi»*]. Trans. R. Soc. Edinburgh LVIII, 1, 125-142. Edinburgh (1934). **b - 243**

The examination of the mouth parts of *D. Bradyi* both on the living animal and on careful preparations shows the features of a typical filtratory malacostracan. A peculiar median process projecting into the filter chamber which is of great importance in the working of the feeding mechanism has been noticed for the first time in the *Cumacea*.

**Ghazzawi F. M.** - The Pharynx and intestinal Tract of the Egyptian Mullets, *Mugil cephalus* and *Mugil capito*. Part II. On the Morphology and Histology of the Alimentary Canal in *Mugil capito* (Tobar) [*De pharynge deque tractu intestinali in Mugilidis. De morphologia et histologia canalis alimentaris in «Mugil capito»*]. 15 fig., Fish. Res. Direct., Notes & Mem., 6, 1-31. Cairo (1935). **b - 244**

Introductory remarks on the food of the mullet. General anatomy. The Oesophagus. The transition region. The Oesogaster. The cardiac region of the stomach. The intermediate region between the cardiac region and pylorus. The pylorus. The intestines. The pyloric appendages. The fat- storing tissue.

**Gray R. W.** - Diet of Seals [*Quaestio de dieta phocarum*]. Nature, CXXXV, 3412, 473. London (1935). **b - 245**

Criticizing Mr. Steven's report the A. sustains that the examination of a great number of stomachs of Seals might lead to the discovery of more remains other than those of fish, that is, those of Crustaceans and shellfish. He concludes that until the matter is more fully investigated, the destruction of grey Seals on the plea that they destroy large quantities of food–fish does not seem to be justified.

**Grunshields F.** - Diet of Seals [*De alimento phocarum*]. Nature, CXXXV, 3417, 657. London (1935). **b - 246**

In contrary to the opinion of Mr. R. W. Gray (See: Nature, CXXXV, 3412, 473) the A. has found that the stomachs and intestines of four Seals caught in the River Tay and examined by him contained the remains of fish.

**Lowndes A. G.** - The Swimming and Feeding of certain Calanoid Copepods [*De natatione et alimento in Copepodis quibusdam Calanoidibus*]. Proc. Zool. Soc. London, Part 3, 687-735. London (1935). **b - 247**

Examination of the movements of the appendages of 7 marine spp. by means of the polygraph process and ultra-rapid photography. The feeding has proved to be more specialised than was believed.

**MacIntosh F. C.** - The Secretion of Urea by the Elasmobranch Stomach [*De ureae secretione ex stomacho in Elasmobranchiatis*]. 2 graph., figs., Journ. Biol. Bd Canada, I, 6, 497-501. Toronto (1935). **b - 248**

The finding of Babkin, Chaisson and Friedman that destruction of the spinal cord in the skate leads to a continuous secretion of gastric juice is confirmed. During the course of this secretion the chloride content of the gastric juice rises or remains unchanged, while the urea content gradually falls from a value of over 1 per cent to 0,1 per cent or less. There is no corresponding change in the urea or chloride content of the blood. (A:s abstr.).

**Maxia C.** - Nuove ricerche sul pancreas intraepatico [*Investigationes novae in pancreas intrahepaticum*]. Monit. Zool. Ital. (Atti Soc. Ital. Anat., VI Conv. in Roma, dicembre 1934), XLV, suppl., 318-321. Firenze (1935). **b - 249**

Esame dei fegati di 44 specie di pesci appartenenti alle famiglie degli Squali, Ganoidi, Lofobranchi, Apodi, Gadidi, Pleuronettidi, Clupeidi, Salmonidi, Gasterosteidi, Mugilidi, Labridi, Pomacentridi, Sparidi, Mullidi, Catafratti, Scombridi, Gobidi, Blennidi e Trachinidi.

**Newell G. E. & Roper H. D. G.** - A Note on the Feeding Habits of *Chimaera monstrosa* [*De consuetudinibus alimentaribus in «Chimaera monstrosa»*]. 2 figs., Journ. Mar. Biol. Assoc., XX, 1, 99-102. Plymouth (1935). **b - 250**

Account of the gut contents of several specimens of *Chimaera monstrosa*.

**Retovsky L. O.** - The Feeding of the Youngs of the Char of Novaja Zemlja (*Salvelinus alpinus* L.) [*De alimentatione quoad juvenes speciei «Salvelinus alpinus» ad* Novaja Zemlja *pertinentis*]. 3 tabl., Trans. Arct. Inst., XVII, 91-105 (Scient. Res. Biol. Exp. Novaja Zemlja 1931-1934, n. 2). Leningrad (1935). **b - 251**

A study of the stomach–content of the young of the char of Novaja Zemlja collected from the River Krestovaja on the northern Island of Novaja Zemlja. The dissected 32 specimens, on which the work is based, vary in length between 28.9 and 78.8 mm.

**Roux P.** - Ingestion et assimilation directes de carbonate de chaux par certains Mollusques Gastropodes [*De ingestione et assimilatione directis carbonati calcici in molluscis quibusdam Gastropodis*]. 3 fig., Bull. Soc. Scient. Bretagne, XI, 101-107. Rennes (1934). **b - 252**

Ingestion de craie par *Achatina achatina*.

**Schnakenbeck W.** - Veränderungen im Verdauungstraktus bei Blankaalen [*De mutationibus in tractu digestivo Anguillarum quoad sexum maturitatem*]. 6 Abb., Zool. Anz., CVIII, 3/4, 85-91. Leipzig (1934). **b - 253**

Vergleich zwischen dem anatomischen Bau des Darmkanales der Gelb- und Blankaale und unter den Veränderungen mehrerer untersuchten Blankaale. Der Vf. behauptet, dass es sich bei einem hier beobachteten Fall nicht um eine pathologische Erscheinung sondern um die bei geschlechtsreifen Blankaalen eintreffenden Veränderungen handeln, wenn sie beim Ausgang ins Meer nicht mehr fressen.

**Shimada Kiyoshi** - On the Digestive Ferments of *Theragra chalcogramma* (Pallas) [*De fermentis digestivis in « Theragra chalcogramma »*]. (Jap. Text; Engl. Rés.). 6 tabl., 4 fig., Bull. Jap. Soc. Scient. Fish., IV, 1, 9-14. Tokyo (1935). **b - 254**

Discussion as to the optimum temperature for the digestive ferments of several Fishes. Experiments with *Theragra chalcogramma* at different temperatures, results expressed in tables.

**Suyehiro Yasuo** - On the Digestive System and the Feeding Habit of the Japanese Flying Fish *Cypselurus agoo* (Temminck & Schlegel) [*De systemate digestionis deque alimentatione piscis volantis Japonici « Cypselurus agoo »*]. (Jap. Text; Engl. Rés.). 2 pl., 2 tabl., Bull. Jap. Soc. Scient. Fish., IV, 1, 37-44. Tokyo (1935). **b - 255**

**Ueda Saburo & Okada Yoshikazu** - On the Food of the Salmonoid Fish, Ayu (*Plecoglossus altivelis* Temminck & Schlegel), I, II, III [*De cibo piscis Salmonoidis « Plecoglossus altivelis »*]. (In Jap., Engl. Rés.). 2 tabl., 1 pl., 3 figs., Bull. Jap. Soc. Scient. Fish. II, 5, 241-245; III, 5, 275-280; IV, 4, 233-238. Tokyo (1935). **b - 256**

Report on investigations undertaken to examine what food this very precious edible species prefers and whether it changes or not according to ages, locality or season. The adult Ayu generally feed on vegetables, especially bluegreen Algae, as has already been shown, only in peculiar conditions they feed on animal organisms indicated here.

**Svedovidov A.** - On the Correlation Between the Character of Food and the Number of Pyloric Caeca in Fishes [*De correlatione inter alimentationem et numerum appendicium pyloricarum in piscibus*]. (In Russ. & Engl.). 3 tabl., C. R. Acad. Sc. U. R. S. S., III, 1, 67-72. Léningrad (1934). **b - 257**

The species on which this study is based in Fishes belong to 5 families, i.e. *Clupeidae, Thymallidae, Pleuronectidae, Gadidae,* and *Percidae*. It is shown that the bigger the organisms on which the given species feeds are, the higher is the number of pyloric caeca. Some conclusions concerned with the physiological function of pyloric caeca in the digestion of Fishes. (L. S.).

**Valiani S.** - Contributo allo studio dell'alimentazione dei pesci. *Scorpaena porcus* Lin. e *Scorpaena scrofa* Lin. [*Contributio in piscium alimentationem studendam*]. 2 fig., Boll. Pesca, Piscicolt. Idrobiol., XI, 3, 413-423. Roma (1935). **b - 258**

Morfologia e biologia delle Scorpene. Elenco completo delle singole specie ritrovate nel contenuto gastrico, della *Scorpaena porcus* e *S. scrofa*, a seconda delle stagioni, risultante costituito prevalentemente da Decapodi, *Palaemonetes varians* Fab., *Crangon spinosus* Leach, e *Nephrops norvegicus* Leach.

**Vladykov V. D. & Homans R. E. S.** - Do Haddock feed during the Spawning Period? [*Num « Gadus aeglefinus » inter reproductionem edit ?*]. Progr. Rep. Atlant. Biol. Stat., 15, 9-11. St. Andrew's, N. B. (1935). **b - 259**

**Yamamura Yarokurô** - Chemical Study of Food-organism for Fish. I. Inorganic Constituents and Protein Digestibility. II. Distribution of Alluminium. III. The Nephelometric Analysis of Zinc and its Distribution [*Studium chemicum organismorum pro alimentatione piscium. I. Constituentes inorganici et proteinarum digestibilitas. II. Alluminii distributio. III. Analysis nephelometrica zinci eiusdemque distributio*]. (In Jap., Engl. Rés.). 1 fig., 6 tabl., Bull. Jap. Soc. Scient. Fish., III, 5, 249-254; 6, 357-358; IV, 1, 6-8. Tokyo (1935). **b - 260**

The food-organisms examined are principally *Crustacea, Mollusca, Vermes* with special reference to their inorganic constituents (namely calcium, magnesium, phosphorous, iron, copper, sulphur, iodine contents, chitin, alluminium). Description of methods used. Results expressed in tables.

**Yonge C. M.** - On Some Aspects of Digestion in Ciliary Feeding Animals [*De peculiaritatibus quoad digestionem animalium quae ciliarum auxilio cibum capiunt*]. 1 table, Journ. Mar. Biol. Assoc., XX, 2, 341-346. Plymouth (1935). **b - 261**

The rôle of mucus in feeding. The nature of the feeding processes. Function of the mid-gut. Formation of faeces.

**Wailes G. H.** - Food of *Clupea pallasii* in Southern British Columbia Waters [*Alimentum speciei « Clupea pallasii » in aquis Columbiae Britannicae merid.*]. 1 fig., 1 tabl., Journ. Biol. Bd Canada, I, 6, 477-486. Toronto (1935). **b - 262**

The food of the Pacific herring consists during the larval stage principally of ova of various kinds with circular diatoms. No food was found in fish less than 9 mm. in length. Adults confine themselves to a crustacean diet (except herring ova occasionally). Copepoda are on the whole the most important food of *Clupea pallasii*. (From A:s abstr.).

## Apparatus uro-genitalis.

**Cardoso D. M.** - Relation entre l'hypophyse et les organes sexuels chez les Poissons [*Correlatio inter hypophysim et organa sexus in piscibus*]. C. R. Soc. Biol., XCV, 1347. Paris (1934). **b - 263**

L'extrait d'hypophyse de plusieurs Poissons injecté à de jeunes Poissons, détermine un développement au delà de la normalité des glandes génitales.

**Chambers L. A.** - Studies on the Organs of Reproduction in the Nudibranchiate Mollusks, with special Reference to *Embletonia fuscata* Gould [*De organis pro reproductione in Molluscis nudibranchiatis, speciatim in « Embletonia fuscata »*]. 3 pls., 5 figs., Bull. Amer. Mus. Natur. Hist., LXVI, 4, 599-641. New York (1934). **b - 264**

Taxonomic status and general morphology of *Embletonia fuscata*: topography of histology and anatomy of the reproductive organs. Summary of structural relationships and natural history of reproduction in *Embletonia* and other Nudibranchs. Reproduction and migration. A fundamental similarity is ascertained among the complex reproductive systems of the *Nudibranchiata* classified in four types.

**Diamare V.** - Cordoni cellulari pronefrici e corpuscoli di Stannius dei Teleostei [*Chordae cellulares pronephricae corpusculaque* Stannius *no-*

*mine in Teleosteis*]. 1 tav., Atti R. Acc. Sc. Fis. Mat., serie 2, XX, 6, 1-7. Napoli (1935). **b - 265**

L'A. dimostra nuovamente l'insussistenza dell'opinione secondo la quale i cordoni cellulari pronefrici dei Teleostei sarebbero gli equivalenti della sostanza corticale delle capsule surrenali riferendo su ulteriori proprie indagini; essi costituiscono invece un corpo epiteliale speciale, connesso con la funzione midollare. I corpuscoli di Stannius, viceversa, sono gli equivalenti corticali, come l'A. stesso dimostrò sin dal 1895.

**Grafflin A. L.** - Renal Function in Marine Teleosts. I. Urine Flow and Urinary Chloride [*De renum functione in Teleosteis marinis. De urinae et chloruri uretici emissione*]. 2 figs., Biol. Bull., LXIX, 3, 391-402. Lancaster, Pa. (1935). **b - 266**

Results of observations upon urine flow and urinary chloride concentration in the following marine teleosts: *Myxocephalus octodecimspinosus*, *Pseudopleuronectes americanus*, *Gadus morrhua*, *Lophius piscatorius*, *Pleuronectes platessa*, *Orthagoriscus mola*, *Scorpaena scrofa*, *Trigla corax*, and *Zeus faber*.

**Hickling C. F.** - Seasonal Changes in the Ovary of the Immature Hake, *Merluccius merluccius* [*Mutationes in ovario speciei « Merluccius merluccius » pro anni temporibus*]. 5 figs,, 4 tabl., Journ. Mar. Biol. Assoc., XX, 2, 443-461. Plymouth (1935). **b - 267**

There appears to be a seasonal change in the rate at which young eggs are formed from resting oocytes, as indicated 1) by the change in the relative abundance of nuclei in synapsis, and 2) by the change in the average diameter of the eggs in the egg-stock in the ovary. These processes show considerable correspondence in their season of incidence with the ovarian cycle. A physiological rhythm has now been detected in both somatic tissues and gonad in the immature hake, which foreshadows the physiological rhythm associated with the spawning cycle in the mature hake. The implication of this on the question of the formation of "growth-rings" in the skeletal structures, is briefly discussed.

**Kostitzine J.** - Sur le système reproducteur femelle de la Pourpre (*Purpura lapillus* L.) [*De systemate feminino pro reproductione in « Purpura lapillus »*]. 2 fig., C. R. Acad. Sc., CC, 7, 585-587. Paris (1935). **b - 268**

Description détaillée de l'appareil reproducteur femelle de la pourpre, prosobranche monotocarde marin, qui n'a pas jusqu'à présent été l'objet d'études approfondies.

**Labbé A.** - Une fonction nouvelle de l'organe d'accouplement des Silicodermés [*Agitur de nova quadam functione quae est tribuenda organo sexuali in Silicodermatis*]. C. R. Acad. Sc., CC, 20, 1684-1685. Paris (1935). **b - 269**

L'A. communique les résultats de son étude sur des coupes sériées d'*Oncidiella* qui démontrent que l'organe d'accouplement en dehors de ses fonctions multiples connues (v. Labbé: C. R., CXCVIII, p. 1941, 1934), fonctionne comme un urèthre, et le pénis est à la fois le terminus de l'urèthre et du canal déférent, comme chez les Mammifères. Cette circonstance explique la présence de cristaux d'acide urique qui ont été trouvés en abondance dans la cavité du pénis de l'*Oncidiella*.

**MacGinitie G. E.** - Normal Functioning and Experimental Behavior of the Egg and Sperm Collectors of the Echiuroid, *Urechis caupo* [*Functio normalis, atque ratio experimentalis quoad collectorem ovorum et spermatum in « Urechis caupo »*]. Journ. Exp. Zool., 70, 3, Philadelphia (1935). **b - 270**

Description and illustration of the eggs and the sperms of *U. caupo*, and of the collecting organs. Their function in blood plasma and in sea water after removal from the body.

**Maschkowzeff A.** - Der Genitalapparat der *Acipenseridae* [*Apparatus genitalis in Acipenseridis*]. 18 fig., Zool. Jahrb. Anat., LVIII, 397-414. Jena (1934). **b - 271**

Die Entwicklung der Eileiter im Vergleich mit der der Selachier, der Dipneusten und der Tetrapoden. Beschreibung des Genitalapparates von drei Arten mit besonderer Berücksichtigung der Verbindung der Testikel und Urniere.

**Ranzi S.** - Sulle funzioni dei leucociti nell'utero dei Selaci [*De leucocitis quoad eorum functionem in utero Selaciorum*]. 3 fig., Arch. Zool. Ital., XX, 569-577. Napoli (1934). **b - 272**

In *Torpedo*, *Scymnus*, *Centrophorus* e *Acanthias*, i leucociti passano dai capillari nel liquido uterino traversando l'epitelio, ed in questo cammino elaborano ed immagazzinano nel loro citoplasma dei lipidi. All'inizio della gravidanza, nelle cellule epiteliali dell'utero di *Myliobatis* e *Trygon*, entrano dei leucociti che vengono distrutti.

**Rotschild M.** - Note on the excretory System of *Cercaria ephemera* Lebour, 1907 (nec Nitzsch) [*De systemate excretorio in « Cercaria ephemera »*]. 7 figs., Parasitol., XXVII, 2, 171-174. London (1935). **b - 273**

Only two preceding descriptions published (1919 and 1931). Development of the system also shown by figures for every stage. The system a typical "Stenostoma" type of excretory system as anticipated by Sewell. Comparison with the Mesostoma type.

## Glandulae et Hormones.

**Friedman M. H. F.** - The Function of the Claspers and Clasper-glands in the Skate [*De organis pro copulatione et glandulis adiuvantibus quoad eorum functionem in Rajidis*]. 2 figs., Journ. Biol. Bd Canada, I, 4, 261-268. Toronto (1935). **b - 274**

The clasper is erected by powerful adductor muscles as well as by vascular dilatation and is used as an organ of intromission. The gland secretes simultaneously from all its papillae a fluid which washes sperm down the clasper-tube into the funale's cloaca. A centre for clasper erection exists in the cord between spinal nerves 48 to 50. In a spinal male tapping on the anal region causes a reflex erection of the claspers. Adrenaline apparently lowers the stimulus threshold for clasper erection.

**Getzel D.** - I microbi della glandola midamentale accessoria in *Sepia officinalis* [*De microbis glandulae nidamentalis additiciae in « Sepia officinalis »*]. Arch. Zool. Ital., XX, 33-43. Napoli, (1934). **b - 275**

L'A. ha studiato le specie microbiche, osservate da Pierantoni, viventi in simbiosi fisiologica nella glandola nidamentale accessoria di *Sepia officinalis* e ne ha descritto le caratteristiche morfologiche e specialmente quelle cromogene alle quali si devono i vivaci colori che si osservano in tali ghiandole. Le specie sono cinque: *Micrococcus nidamentalis albus*, *Coccobacterium nidamentale rubrum*, *Diplobacterium nidamentale pallidum*, *Staphilococcus nidamentalis croceus*, *S. n. malus*.

**Lang D. & Yonge C. M.** - The Function of the Tegumental Glands in the Statocyst of *Homarus vulgaris* [*De functione glandularum tegumentalium in statocystis speciei « Homarus vulgaris »*]. 4 figs., Journ. Mar. Biol. Assoc., XX, 2, 333-339. Plymouth (1935). **b - 276**

The general structure of the statocyst and the combined sensory setae in *H. vulgaris* have been described. The statoliths consist of sand grains attached to the setae by a hyaline secretion. Numerous tegumental glands occur in the sub-epithelial tissues. Their ducts have characteristic funnel-shaped endings, opening into the cavity of the statocyst. The conclusion is reached that the hyaline secretion is formed by these tegumental glands and that this constitutes an important accessory function of these glands.

**Pierantoni U.** - Nuove osservazioni sulla ghiandola nidamentale accessoria dei Cefalopodi [*Observationes novae glandulae nidamentalis additiciae in Cephalopodis*]. Arch. Zool. Ital., XX, 427-442. Napoli (1934). **b - 277**

Sulla base di nuove osservazioni l'A. conferma l'origine ereditaria dei batteri della ghiandola nidamentale, la cui funzione è in rapporto alle radiazioni prodotte dai batteri. Tali radiazioni influiscono sull'attività dei processi di sviluppo embrionale.

**Pierantoni U.** - Ancora sulla funzione della glandola accessoria dei Cefalopodi [*Denuo de functione glandulae additiciae in Cephalopodis*]. Boll. Zool., VI, 1/3, 143-145. Napoli (1935). **b - 278**

L'A. ha studiato l'azione fotogena dei Batteri isolati dalla glandola accessoria di *Sepiola*, i quali impressionano in modo più o meno sensibile lastre fotografiche sensibilissime. Tali Batteri potrebbero essere degli attivatori dello sviluppo e della funzione della sorgente luminosa batterica dell'organo fotogeno, e, somministrati alle uova, potrebbero essere altresì attivatori dello sviluppo dell'embrione.

**Sjögren S.** - Die Blutdrüse und ihre Ausbildung bei den Decapoden [*De glandula sanguinea eiusque formatione in Decapodis*]. 10 Abb., Zool. Jahrb. Anat., LVIII, 144-170. Jena (1934). **b - 279**

Es wird der Zusammenhang zwischen der Blutdrüse und den optischen Nervenfasern aufgewiesen. Beschreibung der Blutdrüse bei *Natantia*; ihre Lage bei verschiedenen Decapoden, innerer Bau und Tätigkeit.

## Color et influentia pigmentorum.

**Abramowitz A. A.** - Color Changes in Cancroid Crabs of Bermuda [*Coloris mutationes in specie « Portunus » ad* Bermuda *pertinente*]. Proc. Nat. Acad. Sc. U. S. A., XXI, 12, 677-681. Washington D. C. (1935). **b - 280**

The pigments of Portunid crabs. Effects of variously colored backgrounds and of blinding.

**Beauvallet M. & Veil C.** - Chromatophores de Poisson (*Carassius vulgaris*) et chromatophores de Crustacés (*Palaemon squilla*) [*De chromatophoris piscium et Crustaceorum*]. C. R. Soc. Biol., CXVII, 688-690. Paris (1934). **b - 281**

Différence structurale et différence physiologique.

**Behre E. H.** - Color Recognition and Color Changes in certain Species of Fishes [*Coloris agnitio et mutationes in quibusdam piscium speciebus*]. Copeia, 2, 49-58. New York (1933). **b - 282**

**Burkhardt, Norman G., Heilbron Morris I., Jackson H. & Parry E. G.** - Pigmented Marine Animal Oils. I. Pigments from the Angler Fish (*Lophius piscatorius*), the Prawn (*Nephrops norvegicus*) and the Whale [*Olea animalia marina pigmentata. Pigmenta in « Lophius », « Nephrops » et in Balaenis*]. Biochem. Journ., XXVIII, 5, 1698-1701. London & Cambridge (1934). **b - 283**

Presence of pigments proved in the oils.

**Euler v. H. & Adler E.** - Ueber Flavin und einen blaufluorescierenden Stoff in der Netzhaut des Fischauges [*De flavina deque substantia coerulea fluorescenti in reticolo epitheliali oculorum piscium*]. Hoppe-Seyler's. Ztschr. Physiol. Chem., CCXXVIII, 1-12. Strassburg (1934). **b - 284**

In der Netzhaut des Fischauges hat Vf. eine Art von Pigment, Flavin, gefunden, der auch bei einigen Squaliden zusammen mit einem blaufluorescierenden Stoff vorgefunden worden ist.

**Euler v. H., Hellström H. & Klussman nE.** - Ueber den Carotingehalt einiger Invertebraten [*De tenore carotinoidum aliquorum Invertebratorum*]. Hoppe-Seyler's Ztschr. Physiol. Chem., CCXXVIII, 77-89. Strassburg (1934). **b - 285**

Studien über den Carotingehalt bei *Calanus finmarchicus* und andere nicht determinierte Carotinsubstanzen bei verschiedenen Invertebraten.

**Heilbron I. M., Jackson H. & Jones R. N.** - The Lipochromes of Sea Anemones. I. Carotenoid Pigments of *Actinia equina*, *Anemonia sulcata*, *Actinoloba dianthus* and *Tealia felina* [*Lipochromata Actiniarum. Pigmenta carotinoidea*]. Biochem. Journ., XXIX, 1384-1388. London & Cambridge (1935). **b - 286**

**Heilbron I. M., Lythgoe & Phipers R. F.** - A New Type of Plant Lipochrome [*Typus novus in plantarum lipochromatis*]. Nature, CXXXVI, 3451, 989. London (1935). **b - 287**

Short note on a new pigment, myxoxanthin, discovered in the unsaponifiable fraction of *Rivularia nitida* (*Cyanophyceæ*).

**Kleinholz L. H.** - The Melanophore-Dispersing Principle in the Hypophysis of *Fundulus heteroclitus* [*Principium ad melanophoros distribuendos in hypophysi speciei « Fundulus »*]. 2 pls., 2 tables, Biol. Bull., LXIX, 3, 379-390. Lancaster, Pa (1935). **b - 288**

Account of experiments from which it appears that the hypophysis of *F. heteroclitus* contains an hormon which is capable of dispersing the melanin granules in the pigment cells of the catfish, frog, and lizard. The innervated melanophores of *Fundulus* are unresponsive to the pigmentary hormon of their own pituitary; this lack of response appears to be due to some nervous control, because denervated melanophores respond to pituitary injections by a typical dispersion of their pigment.

**Koller G.** - Ueber die Farbwechsel von Coregonenlarven [*De coloris mutatione in larvis Coregonum*]. Biol. Zentralbl., LIV, 419-436. Leipzig (1934). **b - 289**

Form und Tätigkeit der Melanophoren und Xantophoren bei *Coregonus lavaretus balticus* und *C. holsatus*. Wirkung verschiedener Unterlagen (schwarz oder weiss), der Art und Stärke des Lichtes auf die Coregonenlarven.

**Parker G. H.** - Neurohumors in Elasmobranchs and Color Changes in Flat-Fishes [*Neurohumores in Elasmobranchiatis variationesque coloris in Pleuronectidis*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 25. Woods Hole, Mass (1935). **b - 290**

Brief account of the completion of a work on the oil-soluble neurohumors in the dogfish and the continuation of a investigation on the color-changes in the sand-dab.

**Rodio G.** - Sui pigmenti delle Feoficee [*De pigmentis in Phaeophyceis*]. Atti Soc. Ital. Progr. Sc. (XXIII Riun., Napoli, 1934), III 140-141 1, Roma. (1935). **b - 291**

Si espongono i risultati di alcune esperienze comparative su alcuni tipi di alghe del Golfo di Napoli, eseguite allo scopo di indagare se il pigmento specifico delle Feoficee abbia importanza nel processo fotosintetico.

**Sand A.** - The comparative Physiology of Colour Response in Reptiles and Fishes [*De physiologia comparata reactionum quoad colores Reptilium et Piscium*]. Biol. Rev., X, 3, 361-382. Cambridge (1935). **b - 292**

Reaction of melanophores to light studied in Reptiles and Fishes from which a theory on coordination of pigmentary response can be derived. The lipophores are controlled by endocrine agencies, which may also influence the melanophores.

**Sørensen N. A.** - Die Farbstoffe des Tranes von *Orthagoriscus mola*. Lipochrome in den Fetten mariner Tiere. III [*De substantiis colorantibus crassi in «Ortagoriscus». De lipochromo in crassis substantiis animalium marinorum*]. 2 Abb., Kgl. Norsk. Vidensk. Selsk. Forh., VI, 40, 154-157. Trondheim (1934). **b - 293**

Die Farbstoffe des gelbgefärbten Tranes von *Orthagoriscus mola* bestehen (nach den 3 untersuchten Proben) im wesentlichen aus einer Carotinmischung, vorwiegend *a*-Carotin. Ausserdem wurden in zwei der Proben kleine Mengen eines Farbstoffes gefunden, der wahrscheinlich den Farbstoffen der früher untersuchten Trane aus *Regalecus glesne* und *Cyclopterus lumpus* nahe steht, und der wahrscheinlich dem Crustaceenfarbstoff Astacin verwandt ist. (Der Vf.).

**Sørensen N. A.** - Die Leberpigmente des Seeteufels (*Lophius piscatorius*). Lipochrome mariner Tiere IV [*De hepatis pigmentis speciei «Lophius piscatorius». Lipochromata animalium marinorum*]. Kgl. Norsk. Vidensk. Selsk. Skr., 1934, I, 1-14. Trondheim (1935). **b - 294**

Frühere Untersuchungen. Neue Hypothese für die Farbentwicklung in der Leber; bestätigende Versuche. Zusammensetzung der Farbstoffe.

**Sumner F. B. & Fox D. L.** - Studies of Carotenoid Pigments in Fishes. II. Investigations of the Effects of colored Backgrounds and of ingested Carotenoids on the Xantophyll Content of *Girella nigricans* [*De pigmentis carotinoideis in piscibus. II. Investigationes in effectus quos fundi colorati et ingesti carotinoides ferunt in xantophyllam speciei «Girella nigricans»*]. Journ. Exper. Zool., LXXXI, 101-123. Philadelphia (1935). **b - 295**

**Tutiya Yasuhiko** - On Colour Substance in the Skin of the Fish, *Beryx splendens* Lowe (Preliminary Report) [*De substantiis coloratis in pelle piscis «Beryx splendens»*]. (In Jap., Engl Rés). 4 figs., 1 table., Bull. Jap. Soc. Scient. Fish., III, 5, 242-246. Tokyo (1935). **b - 296**

The A. has studied the chemical properties of the colouring matter of *B. splendens* although he has not been able to obtain in crystal state.

**Uchida T.** - A Brood-caring Actinian subject to a wide Range of Colour Variations [*Agitur de Actinia quae prolem fert, sub maximis coloris variationibus*]. 12 figs., 1 pl., Journ. Fac. Sc. Hokkaido Imper. Univ., 6, III, 17-31. Sapporo (1934). **b - 297**

This Actinian living along the coasts of the Pacific from the island of Houshu to the Kuriles is without doubt identical with *Epiactis prolifera* from the Californian coasts. The wide range of colour variations does not depend on local conditions but on the hereditary constitution.

**Veil C.** - Sur le mécanisme du changement de couleur chez les poissons [*Ratio mutationis coloris in piscibus*]. C. R. Acad. Sc., CCI, 20, 914-916. Paris (1935). **b - 298**

Bref résumé de précédentes expériences. L'A. sur *Cyprinus carpio* et *Carassius vulgaris* a prouvé l'antagonisme entre le rôle de l'hypophyse et celui des yeux. L'action de l'injection du sang de poissons dont les yeux ont été énuclées a été expérimentée.

**An.** - Color Changes in Fish NOW Understood [*De coloris in piscium variationibus nunc perfecte interpretatis*]. Fish & Oyst.Rep., XVI, 4, 3 & 5. Tampa, Fla. (1935). **b - 299**

Summary of a scientific report on «Studies of the Mechanism of Color Changes in Fishes» delivered by Prof. Francis B. Sumner, of the University of California Scripps Institution of Oceanography, and in which he emphasizes that flounders and other kinds of bottom-dwelling fish possess the faculty for changing their body color or color pattern in response to a changing environment to make themselves conspicuous. The author determines what part eye-sight plays in this chameleon-like process.

## Regeneratio, autotomia et muta.

**Birnie J. H.** - Regeneration of the Tail-fins of *Fundulus* Embryos [*Pinnae caudalis regeneratio in embryonibus speciei «Fundulus»*]. 7 fig., Biol. Bull., LXVI, 316-325. Lancaster, Pa. (1934). **b - 300**

Splitting of the tail-fin anlage does not result in reduplication of the tails. Removal of the entire tail-fin anlage results in no regeneration up to and including the sixty-fifth day after operation. If part of the basal plate is removed with the rays distal to it, new rays will appear in seventeen days and the plate will regenerate in fifty days. (A:s summ.).

**Daves B.** - A study of the Normal and Regenerative Growth in the Pistol-crab, *Alpheus dentipes* (Guer.) with special Reference to the Phe-

nomenon of Chela Reversal [*Studium accretionis normalis et regenerativae in «Alpheus». Agitur particulatim de rebus ad chelarum inversionem pertinentibus*]. 13 fig., Arch. f. Entw. Mech. d. Org., CXXXI, 543-574. Berlin (1934). **b - 301**

Asymmetrical growth of chela. Growth coefficient in the different stages of development, normally and in regeneration. Influence of the autotomy of the big chela on the development of the small one.

**Drach P.** - Aperçu sur les modifications subies par le squelette, avant la mue, chez les Crustacés décapodes [*De modificationibus scheletri ante mutationem in Crustaceis decapodis*]. C. R. Acad. Sc., CCI, 2, 157-159. Paris (1935). **b - 302**

Expériences entreprises avec *Cancer pagurus* et *Carcinus mœnas* montrent que, si la matière organique enlevée à la carapace et mise en réserve lors de la mue constitue un apport important pour l'édification du nouveau squelette, il n'en est pas de même pour les sels calcaires résorbés; ils ne représentent que 5 pour 100 des sels de la future carapace; le poids de celle-ci, une fois achevée, est, en effet, de l'ordre du double de la précédente; les 25 pour 100 de ces éléments minéraux proviendront par conséquent, d'un apport extérieur.

**Drilhon A.** - Le phoshore et la mue des Crustacés [*De phosphoro atque Crustaceorum mutatione*]. C. R. Acad. Sc., CXCVI, 10, 725-726. Paris (1933). **b - 303**

Constance de la teneur en phosphore total des animaux à n'importe quelle époque de leur développement. Quantité de phospore double, dans le sang des femelles par rapport aux mâles. Diminution très nette du phosphore minéral après la mue de l'animal au profit du phosphore organique. (L. S.).

**Drilhon A.** - Étude biochimique de la mue chez les Crustacés brachyoures (*Maja squinado*) [*Studium biochemicum mutationis in Crustaceis brachyuris*]. Ann. Physiol. Physicochim. Biol., XI, 301-326. Paris (1935). **b - 304**

Analyse du processus chimique de renforcement des tissues.

**Drilhon A.** - Le calcium et la mue des Crustacés Brachyoures [*De calcio atque mutatione in Crustaceis brachyuris*]. 2 fig., C. R. Acad. Sc., CC, 10, 858-859. Paris (1935). **b - 305**

Résultats d'observations sur *Maja squinado* aux diverses époques de son développement et, en particulier, à tous les stades qui précèdent ou suivent le phénomène de la mue. La quantité de calcium dissous dans l'hémolymphe oscille entre des limites assez étroites et présente à la période qui précède la mue, une augmentation triple de la quantité couramment transportée, qui va se résorber à mesure de la constitution de la carapace calcaire. (L. S.).

**Drilhon A.** - La réserve alcaline, le pH et la mue des Crustacés brachyoures [*De reserva alcalyna, pH et mutatione in Crustaceis brachyuris*]. 1 fig., C. R. Acad. Sc., CC, 13, 1150-1152. Paris (1935). **b - 306**

L'A. avait déjà montré dans une Note précédente (voir: C. R., CC., p. 258, 1935) que le calcium sanguin circulant subit, à l'époque de la mue, chez *Maja squinado*, une élévation brusque de son taux, suivie d'une décroissance régulière jusqu'à la constitution définitive de la nouvelle carapace. Dans la présente note l'A. communique les résultats des déterminations de la réserve alcaline, sur les mêmes liquides cavitaires, par la méthode de Haldane, et de l'évolution du pH de l'hémolymphe par la méthode colorimétrique de Cullen. Ces déterminations permettent d'entrevoir un des modes de formation de la précipitation calcaire qui aboutit à la rapide constitution de la carapace chez les Crustacés en mue.

**Edmondson C. H.** - Autonomy and Regeneration in Hawaiian Starfishes [*De autotomia et regeneratione in Asteroideis insularum* Hawaii]. 3 figs., Bernice P. Bishop Mus., Occas. Pap., XI, 8, 3-19. Honolulu, Hawaii (1935). **b - 307**

After a brief introduction containing a summary of the more recent research on the autotonomy or the spontaneous loss of parts, which is a widespread phenomenon among echinoderms, author communicates the results of his own observations on this process manifested in *Linckia multifora* (Lamarck), *L. diplax* (Müller and Troschel), *Coscinasterias acutispina* Stimpson, *Dactylosaster cylindricus pacificus* Fischer, and *Nepanthia*.

**Hämmerling J.** - Regenerationsversuche an kernhaltigen und kernlosen Zellteilen von *Acetabularia Wettsteinii* [*Regenerationis experientiae partium cellularum nucleatarum et anucleatarum in «Acetabularia»*]. Biol. Zentralbl., LIV, 650-665. Leipzig (1934). **b - 308**

Diese Versuche sind dieselben, die mit *Acetabularia mediterranea* während der letzten Jahre unternommen worden sind. Vergleich zwischen den beiden Arten. (S. Arch. Entw. Mech. CXXXI, 1–82, Berlin, 1934).

**Okada Yô K.** - Régénération de la tête chez le Polychète *Myxicola aesthetica* (Clap.) [*Regeneratio capitis in Polychaetis*]. 2 pl., 8 fig., Bull. Biol. France et Belgique, 68, 340-381. Paris (1934). **b - 309**

Recherches entreprises à Plymouth. Différentes espèces de régénération. Les segments divisés longitudinalement, pourvu qu'ils contiennent le nerf ventral, peuvent encore régénerer la tête.

**Sayles L. P.** - Regeneration in the Polychaete *Clymenella Torquata*. II. Effect of Level of Cut on Type of New Structures in posterior Regeneration [*Quaestio de regeneratione in Polychaetis. II. Amplitudinis sectionis effectus in typum novarum structurarum sequentis regenerationis*]. 15 figs., Physiol. Zoöl., VII, 1, 1-16. Chicago (1934). **b - 310**

The percentage of the pieces which survive after cutting depends somewhat on the level of the cut as is shown here more particularly.

## Varia.

**Bevelander G.** - A Comparative Study of the branchial Epithelium in Fishes, with special Reference to extrarenal Excretion [*Studium comparativum epithelii branchialis in piscibus; speciatim agitur de excretione extrarenali*]. 6 figs., 1 pl., Journ. Morphol., LVII, 2, 335-352. Philadelphia (1935). **b - 311**

Physiological rôle of osmotic regulation effected by the gills. The respiratory epithelium in most species of fishes is of the flat squamous type, in a few, a higher polyhedral or cubical type. Presence of mucous cells in every specimen of fishes examined but absence of «specialized secretory cells» in the gills. Possible phylogenetic difference between fishes.

**Clarke G. L.** - Penetration of Light into the Sea and Physiology of Copepods [*De lucis penetratione in mare deque physiologia Copepodorum*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 20. Woods Hole, Mass. (1935). **b - 312**

Account of measurements made of the penetration of the red, green, and violet components of daylight into diverse types of Atlantic water. Summary of further investi-

gation of the metabolism of Copepods. Account of observations made at the Bermuda Biological Station (*a*) on the diurnal migration of Copepods in St. Georges Harbor, and (*b*) on the culturing of Bermuda Copepods in laboratory.

**Crichton M. I.** - Scale-Absorption in Salmon and Sea Trout [*Squamarum absorptio in salmone tructaque marina*]. 1 fig., 12 figs. on 4 pls. o. t., Fish. Bd. Scotl. Salmon Fish., IV, 2-8. Edinburgh (1935). **b - 313**

The paper represents a first attempt to study the mechanism of the scale-absorption in salmon and sea trout during the spawning migration. It contains an account of the results of the study of the changes that take place round the margins of the scales, observed on portions of the fish skin with scales in position, which were sectioned. Author claims that scale absorption is due to some physiological change, connected with the above mentioned migration, and is a result of the activity of the cells massed round the margin of the scale.

**Fleischmann J.** - Footsteps in the Sea [*De vestigiis in mari*]. 286 pp. Putnam & Co. Ltd., New York & London (1935). **b - 314**

**Hammett F. S. & Padis N.** - Correlation between Developmental Status of *Obelia* Hydranths and Direction of Hydroplasmic Streaming within their Pedicels [*Quaestio de correlatione inter statum progressionis hydrantium speciei « Obelia » directionemque currentiae hydroplasmicae cum suis pediculis*]. 2 pl., Protoplasma, XXIII, 1, 81-85. Leipzig (1935). **b - 315**

Photographic illustration of the several stages in the life cycle of *Obelia* hydranths, together with a correlation of these, with the direction of hydroplasmic streaming within the pedicels is used to demonstrate the significance of the structural changes as expressions of developmental and metabolic activity. A positive correlation has been demonstrated from the experiments undertaken by the A..

**Häntzchel W.** - Sternspuren, erzeugt von einer Muschel: *Scrobicularia plana* (Da Costa) [*De vestigiis stelliformibus a specie « S. plana » formatis*]. 3 Abb., Senckenbergiana, XVI, 4/6, 325-330. Frankfurt a. M. (1934). **b - 316**

Von den Sternspuren der Nordsee-Watten ist eine Gruppe, die mehrfach im schlickig-feinsandigen Watt bei Wilhelmshaven und auf Old Oog. ö. Wangeroog beobachtet wurden, nicht auf nereidiforme Polychaeten zurückzuführen, sondern wird von der Pfeffermuschel *Scrobicularia plana* (Da Costa) erzeugt. Die Siphonen dieser Muschel. besonders der Einströmungs-Sipho, weiden oder « pipettieren » die nährstoffreiche Oberflächenschicht ab und furchen dabei die Sternstrahlen aus. Die Anlage der Sterne geschieht noch während der Wasserbedeckung. (Vf.).

**Häntzchel W.** - Ein Fisch (*Gobius microps*) als Erzeuger von Sternspuren [*De vestigiis stelliformibus in arena a specie « Gobius microps » formatis*]. 6 Abb., Natur. u. Volk, LXV, 11, 562-569. Frankfurt a. M. (1935). **b - 317**

Verschiedene Formen von Spuren und Erörterung wie sie entstanden sind: Fress-, Bewegungs-, Schark - oder Kratzspuren u. a.

**Jacobs W.** - Ueber Laut-Erzeugung bei Fischen [*De sonis in piscibus productis*]. 11 Abb., Natur u. Volk, LXV, 4, 155-166. Frankfurt a. M. (1935). **b - 318**

Der Stoff dieses Artikels ist der umfangreichen Arbeit von W. Sörensen entnommen und enthält Beschreibungen der anatomischen Einrichtungen für die Laut-Erzeugung. Als Beispiele werden *Balistes, Doras dorsalis* C. V., *D. maculatus, Porichthys notatus, Sciaena aquila* und *Dactylopterus volitans* angeführt.

**Kawakami T.** - Determination of the Thermal Conductivity of Fish and Whale Muscles by the comparative Method [*Conducibilitatis termicae determinatio musculorum piscium et Balaenarum, methodo comparativo*]. (In Jap.; Engl. Rés.). 1 fig., 2 tabl., Bull. Jap. Soc. Scient. Fish., III, 2, 75-76. Tokyo (1934). **b - 319**

A formula is given calculating the thermal conductivity of a sample. The results summarized in a table are approximate to those obtained by G. O. Langstroth (Contr. Canad. Biol. Fish. VI, 15, 1931).

**Kokubo S.** - On the Behaviour of Catfish in Response to galvanic Stimuli [*Ratio agendi speciei « Ameiurus » quoad excitationes galvanicas*]. 2 figs., 2 tabl., Scient. Rep. Tôhoku Imp. Univ., 4th. ser. Biol., IX, 2 & 3, 87-96. Sendai (1934). **b - 320**

The mode and degree of reaction to the galvanic stimulus markedly differ according to the direction of current. The treshold of the jumping reaction. Sensitivity for the stimulus of knocking.

**Laubenfels (de) M. W.** - Physiology and Morphology of *Porifera* exemplified by *Iotrochota birotulata* Higgin [*Porifera. Quaestio de physiologia et morphologia quae demonstrantur ex exemplis a specie « Iotrochota birotulata » depromptis*]. Pap. Tortugas Lab., XXVIII, 37-66. Washington (1934). **b - 321**

**Linke O.** - Ein Spülsaum aus Fischschuppen [*Vestigium per piscium squamas formatum*]. 1 Abb., Natur u. Volk, LXV, 3, 128-129. Frankfurt a. M. (1935). **b - 322**

Bericht über den Fund eines Spülsaums aus Fischschuppen im Sommer 1933 am Ufer der dalmatischen Insel Brac. Verschiedene Behauptungen über dies Vorkommen.

**McGrath H. G.** - Can Fish Think ? [*Num piscis cogitare potest ?*]. Canad. Fisherm., XXII, 11, 14. Gardenvale, Que. (1935). **b - 323**

An example of fish cleverness.

**Oya Takeo & Kuragake Takeo** - The Determination of the Amount of Connective Tissue in Fish [*De gradus determinatione in piscis textis connectivis*]. (In Jap.; Engl. Rés.). 2 tabl., Bull. Jap. Soc. Scient. Fish., IV, 3, 195-197. Tokyo (1935). **b - 324**

Determinations of the amount of connective tissue and the ratio of collagen to elastin in the skeletal muscle of various kinds of fish with a special reference to the influence of temperature.

**Panzer Wolfgang** - Sandkrabben-Spuren an der Küste von Neu-Guinea [*Vestigia speciei « Ocypoda arenaria » ad litora Novae Guineae*]. 4 Abb., Natur u. Volk, LXV, 3, 132-138. Frankfurt a. M. (1935). **b - 325**

Der Vf. schildert hier seine Beobachtungen, wie die Tiere ihre Wohnlöcher und die umgebenden Strahlenmuster aus Sandkügelchen gebildet haben. Aehnliche Bildungen an anderen Küsten.

**Pearse A. S.** - Freezing Points of Bloods of certain Littoral and Estuarine Animals [*Congelationis punctum aliquorum animalium in litoribus viventium et in aestuariis*]. Pap. Tortugas Lab., XXVIII, 93-102. Washington (1934). **b - 326**

**Perruche L.** - L'étude microscopique des écailles de poissons [*Studium microscopicum squamarum piscium*]. 3 fig., Bull. Soc. Franç. Microscop., III, 2, 53-59. Paris (1934). **b - 327**

La vie des Saumons dans les fleuves et dans la mer. Comment cette vie s'inscrit sur les écailles. L'apparition des écailles et leur croissance par rapport à l'alimentation. Détermination de l'âge des Poissons par les écailles. Technique de l'examen microscopique des écailles.

**Rollefsen G.** - Biologiske og oceanografiske undersökelser: Aldersundersøkelser [*Investigationes biologicae et oceanographicae. Investigationes in aetatem*]. (In Norw.; Engl. titles of figs). 4 figs. Lofotfisket 1935, Årsber. Norg. Fisk., 1935, 2, 92-98. Bergen (1935). **b - 328**

Age and length distributions of *Gadus callarias* observed and calculated during 1932–1935. Calculations of size and weight for 1936.

**Smedley N.** - Sounds Made by Fishes in the East Indies [*De sonis a piscibus emissis in Indiis Orient.*]. Nature, CXXXV, 3421, 875-876. London (1935). **b - 329**

Short note on observations made on Fishes of the familly *Sciaenidae* (probably of the genus *otolithus*) and some other Malayan Fishes with popular names of onomatopoeic origin indicating sound.

**Teissier G.** - Sur la croissance du céphalothorax des *Portunus* [*Cephalothorax generis « Portunus ». Quaestio de accretione*]. 1 fig., Bull., Soc. Zool. France, LIX, 200-202. Paris (1934). **b - 330**

Comparaison du procédé de croissance dans 4 espèces des *Portunus*. Identité de la croissance; les différences doivent être attribuées aux phénomènes morphogénétiques de la métamorphose.

**Vladykov V. D.** - The « Three–Eyed » Haddock Fake [« *Merluccius* » *trioculatus*]. 1 photo., Canad. Fisherm., XXII, 8, 12-14. Gardenvale, Que. (1935). **b - 331**

Account of an anatomical and histological examination of a « faked » three-eyed haddock. The eye of another fish has been cleverly inserted into the head of a live haddock and the fish returned to water. It was recaptured months later. The stunt operation is of interest for the scientists, on account of the extraordinary vitality of the fish which is able to withstand such an operation.

**Zobel C. E. & Wells N. A.** - Tolerance of *Fundulus parvipinnis* to certain bactericidal Substances [*Agitur de tolerantia speciei « Fundulus parvipinnis » in substantias bactericidas*]. Proc. Soc. Exp. Biol. and Med., XXXII, 704-706. New York (1935). **b - 332**

## PROCREATIO

### Maturitas sexualis – Cellulae sexuales – Physiologia fecundationis – Caracteres sexuales secundarii – Genetica.

**Andrews E. A.** - The Egg Capsules of Certain *Neritidae* [*Neritidae. Quaestio de capsulis ovorum in quibusdam exemplaribus*]. Journ. Morphol. LVII, 1, Philadelphia (1935). **b - 333**

The present paper gives description with measurements and sketches of egg capsules of: *Neritina reclivata*, *N. virginea*, *N. punctulata*, *Theodoxus meleagris*, *Nerita peloronta*, *N. alticola*, *N. tesselata*, and *Neritilia succinea*. The capsules are made as secretions of the lower oviduct to which mineral particles are added, and these mineral particles are supplied from the intestine and stored up in a special sac opening into the oviduct. Moreover in some *Neritidae* the mineral particles come from the liver as calcospherites, to be passed through the intestine.

**Berner L.** - La reproduction des Moules comestibles et leur répartition géographique [*Agitur de reproductione et partitione geographica in speciebus « Mytilus edulis » et « M. galloprovincialis »*]. Bull. Inst. Océanogr., 680, 1–7. Monaco (1935). **b - 334**

Le phénomène de la procréation n'a lieu qu'après un engraissement des moules, consécutif à un fort développement des organes sexuels; le naissain n'est libéré ultérieurement que lorsque deux facteurs interviennent dans le milieu ambiant: un changement brusque de température (en plus ou en moins) et une diminution passagère de salinité.

**Bliding C.** - Sexualität und Entwicklung bei einigen marinen Chlorophyceen [*De quibusdam Chlorophyceis marinis quoad earum sexum et progressum*]. 4 Abb., Sv. Bot. Tidskr., XXIX, 1, 57–64. Stockholm (1935). **b - 335**

Eingehende Beschreibung der Fortpflanzungs-organe und verschiedener Entwicklungsstadien bei *Cladophora sericea*, *Monostroma wittrockii* und *Capsosiphon aureolus*.

**Borei H.** - Beiträge zur Kenntnis der Vorgänge bei der Befruchtung des Echinodermeneies [*Contributio in cognoscendum processum fecundationis ovi in Echinodermatis*]. 1 Abb., 2 Ztschr. f. vgl. Physiol. XX, 258-266. Berlin (1934). **b - 336**

Säurebildung, Atmungsquotient, und Verschiedenheiten bei den befruchteten und unbefruchteten Eiern von *Psammechinus miliaris*.

**Breder C. M.** - The Reproductive Habits of the Common Catfish, *Ameiurus nebulosus* (Le Sueur) with a Discussion of their Significance in Ontogeny and Phylogeny [*De consuetudinibus quoad reproductionem in « Ameiurus nebulosus » cum discussione de earum significatione pro Ontogenia et Phylogenia*]. Zoologica, XIX, 143-185. New York (1935). **b - 337**

**Burger J. W. & Stead Thornton C.** - A Correlation between the Food Eggs of *Fasciolaria tulipa* and the Apyrene Spermatozoa of Prosobranch Molluscs [*Correlationes inter ova nutritionis speciei « F. tulipa » et spermatozoa apyrena*

*in Molluscis Prosobranchiis*]. 6 figs., Biol. Bull. LXVIII, 2, 253 257. Lancaster, Pa. (1935). **b - 338**

Glaser (1905), in a study of the « egg cannibalism » in *Fasciolaria*, has suggested that the food eggs represent a condition comparable to that in oligopyrene sperm, such as Meves (1901) described for *Paludina*. The A. has found cytological evidence that permits an elaboration of Glaser's suggestions.

**Carter G. S.** - Iodine Compounds and Fertilisation. IX. Fertilisation in the Starfish, *Asterias rubens* L. [*De jodii componentibus deque fertilisatione in « A. rubens »*]. Journ. Exp. Biol., XII, 108-118. London (1935). **b - 339**

**Chase H. Y.** - The Effect of Temperature on the Rate of the Fertilization Reaction in Various Marine Ova [*Effectus temperaturae in gradum reactionis fecundantis in ovis variis animalium marinorum*]. 1 fig., 2 tabl., Biol., Bull., LXIX 3, 415-426. Lancaster, Pa. (1935). **b - 340**

This paper reports a study of the effect of temperature on the development of the fertilization membrane, which serves as an indicator of the fertilization reaction, in several kinds of eggs. Measurements on this effect fall in the following categories: (*A*) effect on gametes of exposure to various temperature, (*B*) effect of temperature on the time until contact of the sperm with the egg, and (*C*) effect of temperature on the rate of the development of the fertilization membrane. Eggs of the following species were used: *Dendraster excentricus*, *Strongylocentrotus purpuratus*, *Patiria* (*Asterina*) *miniata*, and *Urechis caupo*.

**Clement A. C.** - The Formation of Giant Polar Bodies in Centrifuged Eggs of *Ilyanassa* [*De permagnis corpusculis polaribus in ovis centrifugatis speciei « Ilyanassa »*]. 4 pls., Biol. Bull. LXIX, 3, 403-414. Lancaster, Pa. (1935). **b - 341**

In the present paper evidence is presented to show that giant polar bodies do form in centrifuged eggs of *Ilyanassa* and that occasionally they, instead of what would ordinarily be considered the egg, undergo development.

**Coe W. R.** - Alternation of Sex in Oyster [*De alternantia sexuali in Ostreis*]. Amer. Naturalist. LXVIII, 236-251. Boston (1934). **b - 342**

A. has undertaken studies on a larviparous hermaphrodite *Ostrea lurida* and a dioceious oviparous *O. lurida* in order to realize the factors that influence the change of sex. It has been possible to determine the number of regular hermaphrodites and alternative sexual phases as well as a relation between size and sex and the importance of the individual metabolism for the sex differenciation.

**Coe W. R.** - Sexual Phases in Prosobranch Mollusks of the Genus *Crepidula* [*Phases sexuales in Molluscis Prosobranchiis ad genus « Crepidula », pertinentibus*]. Science, LXXXII, 2110, 570-572. New York (1935). **b - 343**

Review of studies undertaken by Harvey N. Gould, J. H. Orton, E. G. Conklin on *Crepidula plana* and *C. fornicata*: the course of the different phases, formation of the primary bisexual gonad, the functional male phase, the transition stages and the sexual maturity of the female phase; some variabilities observed in the course.

**Costello D. P.** - The Surface Precipitation Reaction in marine Eggs [*De reactione quoad superficiem praecipitationis ovorum marinorum*]. 2 pls. Protoplasma, XVII, 239-257. Berlin (1933). **b - 344**

Different ways of reaction to surface precipitation are observed in the eggs of *Arbacia*, *Asterias*, *Echinarachnius*, *Cerebratulus*, *Nereis*, *Gonionemus*, *Phascolosoma*, *Amphitrite*, *Hydroides*, *Chaetopterus*, *Cumingia*, *Mytilus*, *Choetopleura* and *Podarke*. In all cases a membrane is formed.

**Dale H. M.** - The Egg-Case of a Cat Shark *Scyliorhinus Vincenti* (Zietz) [*Sacculus ovorum in « Scyliorhinus »*]. 1 pl. o. t., Rec. South. Austr. Mus., V, 3, 367-368. Adelaide (1935). **b - 345**

Description of the case, extrusion of the egg.

**D'Ancona U.** - Ricerche sul differenziamento sessuale delle Anguille della laguna veneta [*Investigationes in differentiationem sexualem Anguillarum in lacuna Veneta*]. Boll. Soc. Ital., Biol. Sper., X, 6, 480-483. Napoli (1935). **b - 346**

Fra le anguille della Laguna veneta il più precoce differenziamento sessuale può essere riconosciuto in anguille di circa cm. 15 o poco più e non si ritrovarono mai quelle forme intersessuali notate da Grassi, da Rodolico e dall'A. stesso, nelle anguille del versante tirreno. Questi ed altri fatti dimostrano una diversa evoluzione istologica delle gonadi di anguille di diversa provenienza e confermano l'ipotesi dell'azione ambientale sul differenziamento del sesso, mettendo pure in luce interessanti fatti circa il grado di maturazione sessuale che le anguille raggiungono in laguna.

**Day J. H.** - Heterogonic Growth in the Abdomen of *Carcinus maenas* [*Accretiones heterogonicae in abdomine speciei « C. maenas »*]. 3 figs., 2 tables. Dove Mar. Labor., Rep. Year End. July 31st., 1935, 49-59. Newcastle o. Tyne (1935). **b - 347**

From measurements taken of 560 specimens of *C. maenas* growth-ratios of all abdominal segments were determined at different ages. It is concluded that during the period of immaturity there are two gradients in the abdomen. The influence of the one with a proximal growth-centre declines while the influence of the other whose growth-centre is distally situated, increases. The latter seems to be correlated with phases of sexual development.

**De Buen F.** - Clupéidés et leur pêche [*De Clupeidis eorumque piscatura*]. 2 fig., Rapp. Pr.-Verb. Cons. Expl. Scient. Méditerr., IX, (n. sér.), 95-129. Paris (1935). **b - 348**

La sardine. Synonymie: noms scientifiques et communs en Atlantique et en Méditerranée. Les caractères sexuels: Ovaires et testicules. Caractères sexuels secondaires (comparaison entre les mâles et les femelles). Répartition des sexes. Le cycle sexuel: les caractères histologiques, phases successives de la maturation sexuelle, époque de ponte et variations. Conditions physico-chimiques pendant le cycle sexuel. Engraissement périodique de la sardine. Développement ontogénique. Bibl.

**Duboscq O. & Tuzet O.** - Sur l'acroissement des ovocytes de *Sycon raphanus* O. S.: La signification des « Dolly-cells » [*Accretio ovocitorum in « Sycon raphanus ». Interpretatio τοῦ Dolly-cells*]. 4 figs., Arch. Zool. Expér. Gén., LXXVII, 2, 71-78. Paris (1935). **b - 349**

On peut reconnaître dans l'ovocyte de Sycon trois stades dans le petit accroissement et aussi trois stades dans le grand accroissement, dont l'A. décrit la première phase, c'est-à-dire la migration de l'oeuf vers l'atrium pour se nourrir aux dépens des « dolly-cells ».

**Elster H. J.** - Experimentelle Beiträge zur Kenntnis der Physiologie der Befruchtung bei den Echinoïdeen [*Contributiones ad experimentum in cognoscendam physiologiam fecundationis in Echinoideis*]. 1 Abb., Arch. Entw. Mech. CXXXII, 1-87. Leipzig (1935). **b - 350.**

Bericht über die Ergebnisse der künstlichen Befruchtung, mit oder ohne Hybriden, bei *Paracentrotus*, *Sphaerechinus*, *Arbacia*, *Echinus*, *Echinocardium* im normalen-Meereswasser und im alkalinisierten oder mit Eisekretionen bemengten Meereswasser.

**Fage L.** - La ponte et les races locales de l'anchois de la Méditerranée (*Engraulis encrasicholus* L.) [*De ovorum depositione speciebusque localibus apuarum in mari Mediterraneo*]. Comm. Int. Expl. Scient. Méditerr., Rapp. Assemblée plén. Bucarest, 4 pp. Paris (1935). **b - 351**

A la suite de la relation par F. de Buen sur l'état de nos connaissances sur l'Anchois de la Méditerranée, dans le présent rapport, l'A. ne fait état que des faits susceptibles de donner encore lieu à des interprétations divergentes, à voire: la durée de l'époque de la ponte en rapport avec la distinction des races locales de l'Anchois.

**Gandolfi-Hornyold A.** - Observations sur la taille et le sexe de 400 petites anguilles argentées à Ponte–Tresa (Tessin) [*Observationes quoad corpus et sexum in 400 anguillulis argentatis apud* Ponte Tresa]. Actes Soc. Helv. Sc. Nat., 362-366. Genève (1934). **b - 352**

En faisant des comparaisons entre la taille et le poids selon les sexes, on constate que la femelle généralement est plus développée que le mâle. L'époque de migration à la mer peut avoir de notables différences. Identification de deux parasites.

**Gandolfi Hornyold A.** - Osservazioni sull'età, la crescita e il sesso delle anguille argentine delle valli di Comacchio [*Observationes quoad aetatem, accretionem et sexum in anguillis argentatis Vallium Comacinarum*]. Atti Acc. Sc. Med. e Natur., Ferrara, XI, 92-116. Ferrara (1934). **b - 353**

**Gandolfi-Hornyold A.** - Observations sur la croissance et le sexe de la petite Anguille jaune de l'Etang de Mauguio ou de l'Or. [*Obserservationes quoad accretionem et sexum anguillulae flavae in stagno* Mauguio *seu* de l'Or]. Tab., Bull. Soc. Zool. France, LIX, 246-253. Paris (1934). **b - 354**

Observations sur 260 Anguilles jaunes dont l'A. a étudié le nombre des zones des otolithes, le sexe, les individus des différentes longueurs, la longueur, le poids, le nombre des zones des écailles par rapport à l'âge des anguilles.

**Gandolfi-Hornyold A.** - Observations sur le sexe, l'âge et la croissance de 315 petites anguilles du lac Trasimeno [*Observationes quoad sexum, aetatem, accretionem 315 anguillularum in Lacu Trasimeno*]. Riv. Biol., XVIII, 2, 177-190. Perugia (1935). **b - 355**

L'A. a étudié 315 petites anguilles à 28-51 cm. du lac Trasimène, dont 28 étaient mâles et 287 femelles, c'est-à-dire respectivement 8,85 et 91,15 %. Les anguilles étudiées appartenaient au groupe d'âge II-VIII. Les otholites étaient assez transparents. Dans une petite quantité de ces anguilles l'A. a trouvé le cestode *Bothriocephalus claviceps* Goeze.

**Harris J. E.** - Studies on Living Protoplasm: I. Streaming Movements in the Protoplasm of the Egg of *Sabellaria alveolata* (L.) [*De protoplasmate vivente. I. Motus currentiae in protoplasmate quod continetur in ovo speciei « Sabellaria alveolata »*]. Journ. Exp. Biol., XII, 65-79. London (1935). **b - 356**

**Heilbrunn L. V. & Young R. A.** - Indirect Effects of Radiation on Sea Urchin Eggs [*De radiationis effectibus indirectis in ova speciei « Arbacia punctulata »*]. 2 tabl., Biol. Bull., LXIX, 2, 274-278. Lancaster Pa. (1935). **b - 357**

When sea urchin eggs are exposed to roentgen rays in the presence of ovarian tissue, the effect of the radiation is more pronounced than when the eggs alone are irradiated.

**Just E. E.** - Effects of ultraviolet Rays on animal Eggs [*De radiis ultraviolaceis quoad eorum effectum in ova animalium*]. Atti I Congr. Int. Elettroradiobiologia (Venezia 1934), X, 650-652. Venezia (1935). **b - 358**

**Kändler R.** - Häufiges Vorkommen von Bastarden zwischen Scholle und Flunder in der Ostsee [*De frequentibus bigeneribus inter « Pleuronectes platessa »* et *« P. flesus » in mari Baltico*]. 1 Tab., Fischmarkt, III, 10, 256-259. Cuxhaven (1935). **b - 359**

Bericht über eingehende Untersuchungen über die sogenannte Halbschollen oder Blendlinge, d. h. Bastarde zwischen Scholle und Flunder. Vf. bespricht die Wirbelzahl dieser Bastarde und die Häufigkeit, die Bedingungen, welche der Kreuzbefruchtung zwischen Scholle und Flunder günstig sind und die Schädigungen, die dadurch namentlich dem Schollenbestande der Ostsee entwachsen. (Näheres von demselben Vf.: Cons. Expl. Mer, Rapp. & Proc. V. XCIV, 1935).

**Kändler R.** - Ueber das Vorkommen von Bastarden zwischen Scholle (*Pleuronectes platessa* L.) und Flunder (*Pleuronectes flesus* L.) in der Ostsee [*De frequentibus bigeneribus inter « P. platessa » et « P. flesus » in mari Baltico*]. (Dtsch. Text; Engl. Rés.). 11 Tab., 5 graph. Fig., Rapp. Pr.–Verb. Cons. Expl. Mer, XCIV, 3ème partie, App. (1934–1935), 9-24. Copenhague (1935). **b - 360**

Vergleich zwischen Schollen, Flundern und Bastarden in Bezug auf Wachstum, Wirbel- und Flossenstrahlenzahl, Korrelation, zwischen Zahl der Wirbel und der Analflossenstrahlen, sowie Länge der verschiedenen 0- und 1- Gruppen in der eigentlichen und westlichen Ostsee. Auf Grund dieser Untersuchungen wird ein Bastard *Pleuronectus pseudoflesus* Gottsche anerkannt.

**Le Calvez J.** - Les gamètes de quelques foraminifères [*De gametis aliquorum Foraminiferorum*]. 3 fig., C. R. Acad. Sc., CCI, 27, 1505-1507. Paris (1935). **b - 361**

Sur la base d'observations sûres sur la production de gamètes dans dix expèces de foraminifères, appartenant à 6 familles différentes, l'A. conclut à la constance relative de structure des éléments reproducteurs de ces organismes. Il affirme que la connaissance des gamètes dans la trentaine des familles, dont les gamètes sont encore inconnus, permettrait des conclusions plus générales, intéressant la systématique et la phylogénie des représentants de ce grand groupe.

**Levera F.** - Sulle femmine a pleopodi mascolinizzati nei Gamberi rossi [*De feminis cum pleopodis masculinisatis in « Aristeomorpha »*]. 1 tav., Boll. Mus. Labor. Zool. Anat. Comp. Genova, XIV, 77, 3-7. Genova (1934). **b - 362**

Nel gambero abissale *Aristeomorpha foliacea* si osserva una piccola percentuale di femmine con i pleopodi del 1° e del 2° paio più o meno completamente mascolinizzati. Siffatta anomalia si ritrova tanto negli esemplari del Mare Ligure, quanto in altri provenienti dalle acque tunisine e va probabilmente attribuita a un grado leggero d'intersessualità puramente somatica.

**Mathias P.** - Résistance au froid et à la chaleur de l'oeuf d'*Artemia salina* L. (Crustacé phyllopode) [*Quomodo ova speciei « Artemia salina »*

*resistunt frigidi et calidi*]. Soixante-septième Congr. Soc. Sav. XVIII, 157-161. (Trav. Stat. Biol. de Sète XXXVIII, M. 88. Sète, Herault 1934). Paris (1934). **b - 363**

Il resulte des expériences reportées ici que l'oeuf de *Artemia salina* qui est exposé à tous les rigueurs du climat peut supporter des températures de 83° + jusqu'aux 18° —, sous lesquelles, cependant, le développement des oeufs est retardé.

**Mc Kenzie R. A.** - Cod Spawning in the Bay of Fundy and about south-western Nova Scotia [*De generatione ovorum speciei « Gadus » in baja* Fundy *circaque novam Scotiam sudoccid*]. Progr. Rep. Atlant. Biol. Stat. 13, Dec. St. Andrews N. B. (1934). **b - 364**

**Moore H. B.** - A Case of Hermaphroditism and Viviparity in *Echinocardium cordatum* [*Casus hermaphroditismi et viviparitatis in « Echinocardium »*]. 4 figs., Journ. Mar. Biol. Assoc., XX, 1, 103-107. Plymouth (1935). **b - 365**

A specimen of *Echinocardium cordatum*, interesting for its hermaphroditism and viviparity was collected in the sandy beach of Port Erin Bay. Records of hermaphroditism in several species of *Echinoidea*.

**Motomura I.** - On the Mechanism of Fertilization and Development without Membrane Formation in the Sea Urchin Egg, with Notes on a new Method of Artificial Parthenogenesis [*De mechanismo fertilisationis et progressionis sine membranae formatione in ovis echini, cum notis de nova methodo parthenogenesis artificialis*]. 10 figs., Sc. Rep. Tôhoku Imp. Univ., IVth. Ser., Biol., IX, 1, 33-45. (Contr. Mar. Biol. Stat., 112, Asamushi, Aoomori-Ken.). Sendai (1934). **b - 366**

Author studies the effect of butyric acid, and isotonic, hypertonic and hypotonic urea solutions on the capacity to form the fertilisation - and the hyaline-membrane by the eggs of the sea urchins, *Strongylocentrotus nudus*, *S. pulcherrimus*, and *Pseudocentrotus depressus*.

**Nikolskij G. W.** - Eine Hybridenform des *Rutilus rutilus aralensis* Berg und *Chalcalburnus chalcoides aralensis* Berg. [*Formae hybridae inter « R. rutilis aralensis » et « C. chalcoides aralensis »*]. (En russ., dtsch. Rés.). 1 Fig., 1 Tab., Arch. Mus. Zool. Univ., I, 113-116. Moscou (1934). **b - 367**

Beschreibung einer Hybridenform zwischen *R. rutilis aralensis* Berg und *C. chalcoides aralensis* Berg; der Fisch ist in der Bucht der Aralsee bei der Eisenbahnstation « Araljskoje More » gefangen worden. Einige Betrachtungen über die zur Hybridation notwendigen Bedingungen.

**Okada Yô K.** - Stolonization in *Myrianida* [*De stolonisatione in Myrianidis*]. 6 figs., Journ. Mar. Biol. Assoc., XX, 1, 93-98. Plymouth (1935). **b - 368**

*Myrianida pinnigera*, in the Plymouth district at least, appears to stolonate in the warmer half of the year, while the process stops in the winter time.

**Parker G. H. & Porter B. H.** - A Nuptial Secondary Sex-Character in *Fundulus heteroclitus* [*De caractere sexuali secundario in « Fundulus »*]. 4 figs., Biol. Bull., LXVIII, 1, 4-6. Lancaster, Pa. (1935). **b - 369**

The male of *F. heteroclitus* possesses a secondary sex-character in the form of a melanophoric mark on its dorsal fin to be seen from April to November but not at other times of the year. It is composed of an unusually dense aggregation of melanophores whose melanin even when concentrated (light phase) forms a conspicuous dark mark. It does not occur in the female.

**Pearson J. C.** - Eggs of a Peneid Shrimp [*De ovis aliquarum specierum Penaeidarum*]. Science, LXXXII, 2121, 172. New York (1935). **b - 370**

Short note on eggs and different stages of embryos of *Penaeus setiferus* and P. *brasiliensis* taken along the South Atlantic and Gulf coasts which throw some light on the spawning and distribution of the young Shrimps.

**Pelseneer P.** - La durée de la vie et l'âge de la maturité sexuelle chez certains Mollusques [*Spatium vitae atque tempus maturitatis sexualis in quibusdam Molluscis*]. 1 fig., Ann. Soc. R. Zool. Belg., LXIV, 93-104. Bruxelles (1934). **b - 371**

Description de la longévité (généralement 30 années environ) chez les Mollusques: les mâles vivent moins que les femelles. Étude particulière de *Trochus umbilicalis*.

**Ranzi S.** - Risultati di ricerche su varie forme di gestazione [*Resultatus ex investigationibus in varias formas gestationis*]. Boll. Zool., VI, 1/3, 153-157. Napoli (1935). **b - 372**

Nei Selaci l'A. ha studiato i rapporti tra madre e feto per le specie ovipare, ovovivipare e vivipare, prendendo in considerazione: l'accrescimento degli embrioni delle diverse specie, la composizione del liquido uterino che serve di alimento all'embrione, l'istofisiologia delle pareti dell'utero nelle specie gestanti, la riduzione del fegato materno nel corso della gestazione e le vie attraverso le quali il liquido uterino viene assorbito dall'embrione. Risultato delle ricerche sulla istofisiologia della ghiandola del guscio, e sulle trasformazioni chimiche dei materiali che passano dal fegato materno all'embrione.

**Rass T. S.** - Le frai, les oeufs et les alevins des poissons commerciaux de la Mer de Barents [*De reproductionis tempore, ovis, et pisciculis specierum commercialium Maris* Barents]. (En russe). 3 fig., Karelo-Mourm. Kraj, 3/4, 57-60. Leningrad (1934). **b - 373**

**Rass T. S.** - Geographische Gesetzmässigkeiten im Bau der Fischeier und Larven [*Regularitates geographicae quoad structuram ovorum et larvarum piscium*]. Zoogeographica, III, 1, 90-95 Jena (1935). **b - 374**

Vf. unterscheidet für *Gadus*- Arten (einschl. *Boreogadus* und *Eleginus*), *Pleuronectidae*, *Blennius* und *Liparidae* drei Gruppen mit verschiedener Grösse und Pigmentierung der Eier je nach der nördlichen Verdrängung. Als allgemeine Regel scheint zu gelten: je nördlicher die geographischen Areale verwandter Arten gelegen sind, desto grösser sind deren Eier.

**Rhein A.** - Diploide Parthenogenese bei *Hydrobia jenkinsi* Smith (*Prosobranchia*) [*Quaestio de parthenogenesi diploidi in « Hydrobia jenkinsi »*]. Naturwiss., XXIII, 6, 100. Berlin (1935). **b - 375**

Kurze Mitteilung über die bei dem Zoologischen Institut zu Giessen ausgeführten Lebendbeobachtungen und Schnitte.

**Rollefsen G.** - The Eggs and the Larvae of the Halibut [*De ovis et larvis speciei « Hippoglossus vulgaris »*]. 4 fig., Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 7, 20-23. Trondheim (1935). **b - 376**

Description of an experiment with artificial fertilization undertaken at the biological Station of Trondheim in 1930. The different stages of development are expressed in figures magnified 10 times.

**Schreiber B.** - Tentativi di maturazione sperimentale dell'anguilla con ormoni ipofisari [*Tentamina maturationis experimentalis anguillae per hormones hypophysarios*]. 5 fig., Rend. R. Ist. Sc. Lett., serie 2, LXVIII, 11/15, 669-672. Milano (1935). **b - 377**

L'iniezione di Prolan a maschi di anguilla argentina, provvisti di testicolo immaturo allo stato di cordoni pieni di spermatogoni primari, determina: l'aumento dell'altezza dei lobi testicolari, la trasformazione dei cordoni pieni in tubuli e la completa evoluzione della linea germinale fino allo spermatozoo maturo.

**Senn E.** - Die Geschlechtsverhältnisse der Brachiopoden, im besonderen die Spermato- und Oogenese der Gattung *Lingula* [*De Brachiopodis quoad eorum condiciones sexuales, speciatim quoad spermatogenesim et oogenesim generis « Lingula »*]. 64 Abb., Acta Zool., XV, 1–152. Stockholm (1934).

(—) S. auch Actes Soc. Helvet. Sc. Natur., p. 357. Genève (1934). **b - 378**

Eingehende Beschreibung der Geschlechtsorgane von *Lingula*. Bemerkungen über andere Brachiopoden, von denen die meisten getrennte Geschlechter zu haben scheinen. Nur die *Argyrothecae* sind Hermaphroditen. Zum Schluss behandelt der Vf. die Verwandtschaftsverhältnisse zwischen Brachiopoden und anderen Trochozoen.

**Sexton E. W.** - Fertilization of Successive Broods of *Gammarus chevreuxi* [*De fertilisatione alterius prolis speciei « Gammarus chevreuxi »*]. Nature, CXXXVI, 3438, 477. London (1935). **b - 379**

Criticism on the idea of « post-fertilization » in *Gammarus* exposed by K. W. Yarnold in Nature, May 18, p. 832, 1935.

**Sexton E. W., Clark A. R. & Spooner G. M.** - First Appearance of Red-eye in the wild *Gammarus chevreuxi* Sexton [*De priore apparitione oculi rubri in specie inculta « G. chevreuxi »*]. Nature, CXXXVI, 3447, 836. London (1935). **b - 380**

Short note on the first definite proof of heterozygosity.

**Sivertsen E.** - Torskens gytning. Med soerlig henblikk på den årlige cyklus i generasjonsorganens tilstand [*De ovorum depositione speciei « Gadus morrhua ». Agitur particulatim de cyclo annuo quoad conditionem organorum ad procreationem*]. (Dtsch. Rés.) 4 Taf., 5 Tab., 5 Abb., Fiskerid. Skr., Ser. Havunders (Rep. on Norw. Fish. & Mar. Invest.), IV, 10, 1-29. Bergen (1935). **b - 381**

Das Ziel dieser Arbeit ist zu untersuchen, ob der Dorsch jedes Jahr laicht oder ob er ein- oder mehrjährige Ruheperioden zwischen jeder Laiche haben kann. Die verschiedenen Stadien im jährlichen Cyklus der Generationsorgane sind folgendermassen charakterisiert: Unreife Ovarien, Ovarien im Reifen, reife Ovarien, abgelaichte Ovarien.

**Tchakhotine S.** - La parthénogenèse artificielle de l'oeuf de la Pholade, par micropuncture ultraviolette [*De parthenogenesi artificiali in ovo in « Pholas », micropuncturis ultraviolaceis*]. C. R. Soc. Biol., CXIX, 27, 1394-1396. Paris (1935). **b - 382**

L'oeuf de *Pholas* (*Barnea*) *candida* est émis avant la maturation, ayant encore le noyau au stade de la vésicule germinative. Cet oeuf, réfractaire jusqu'à présent à tous les procédés de parthénogenèse artificielle, présent des mouvements de fluctuation de la masse cytoplasmique jusqu'à la formation de quatre blastomères de forme et grandeur différentes, par la micropuncture ultraviolette. (L. S.).

**Teissier G.** - Croissance des variants sexuels chez *Maia squinado* L. [*De accretione differentiationum sexualium in « Maia squinado »*]. 9 tabl., 11 graph., 5 fig., Trav. Stat. Biol. Roscoff, 13, 93-130. Paris (1935). **b - 383**

Matériel et technique. Croissance des appendices chez les mâles. Croissance des appendices et de l'abdomen chez les femelles. Croissance et mues. Les étapes de la croissance. Croissance et développement sexuel. Conclusions.

**Yarnold K. W.** - A. Further Reappearance of the Second Red–Eye Mutation in *Gammarus* [*Apparitio nova secundae mutationis oculorum rubrorum in « Gammarus »*]. Nature, Suppl. CXXXV, 3420, 832. London (1935). **b - 384**

Results of crossing between a new mutation producing red, instead of normal black, facets in the eyes of *Gammarus chevreuri* Sexton with other red–eyed mutations in order to determine their homology. The A. claims the possibility of postfertilization.

**Yarnold K. W.** - Persistence of Sperms to a Later Mating in *Gammarus* [*De spermatum persistentia in post–reproductionem speciei « Gammarus »*]. Nature, CXXXVI, 3445, 758-759. London (1935). **b - 385**

Reply to a criticism of E. W. Sexton (Nature CXXXVI 3438, p. 477). A. maintains the possibility of later mating.

**Yonge C. M.** - Origin and Nature of the Egg Case in the *Crustacea* [*De origine et natura membranae ovorum in Crustaceis*]. Nature, CXXXVI, 3428, 67-68. London (1935). **b - 386**

Following up previous work on the function of the tegumental glands in the Decapods, A. has found that the eggs are surrounded by two secreted membranes. Some further information on this subject. Identical conditions in other groups.

**An.** - Ueber die Laichverhältnisse beim Kabeljau [*De copulationis condicionibus speciei « Gadus morrhua »*]. Fischmarkt, III, 6, 161-162. Cuxhaven (1935). **b - 387**

Kurze Uebersicht der von russischer und norwegischer Seite neulich unternommenen Forschungen, welche in Bezug auf die Frage, ob der Kabeljau jedes Jahr laicht, zu abweichenden Resultaten gekommen sind.

# PROGRESSUS EMBRYONALIS ET ACCRETIO CORPORIS

## Embryologia - Accretio larvalis - Metamorphosis.

**Atoda K.** - The Larva of the Catfish: *Parasilurus asotus L.* [*Quaestio de larva speciei « P. asotus »*]. 5 figs., Sc. Rep. Tôhoku Imp. Univ., 4 Ser., Biol., X, 1, 29-32. (Contr. Mar. Biol. Stat., N. 121, Asamushi, Aomori–ken). Sendai, Jap. (1935). **b - 388**

Brief report and description of catfish larvae, collected in June, 1924 at Asamushi.

**Bertin L.** - Les types de Kaup dans la collection des Leptocéphales du Muséum [*Typus* Kaup *nomine in collectione Leptocephalorum ad Museum pertinente*]. 4 fig., Bull. Mus. Nat. Hist. Natur., VII, 2, 99-106. Paris (1935). **b - 389**

Les types de Kaup appartenant à la collection des Leptocéphales du Muséum se répartissent en trois groupes: 1) *Leptocephalus capensis* et *L. lineo-punctatus* qui, inconnaissables à tous points de vue, doivent être rayés de la nomenclature. 2) *L. acuticaudatus*, *L. dussumieri* et *L. marginatus* qui, décrits à nouveau dans le présent travail, pourront être identifiés à une date ultérieure. 3) *L. brevirostris*, *L. longirostris*, *L. stenops* et *L. taenia*, dont ont connait à l'heure actuelle les formes adultes, respectivement: *Anguilla anguilla*, *Nettastoma melanurum*, *Conger muraena mystax* et *Ophisoma balearicum*.

**Bertin L.** - Les larves de Poissons Apodes dans les œuvres imprimées et manuscrites de Risso [*Apoda. Quaestio de larvis apud* Risso *in eius operibus, typis editis typographicis et manuscriptis*]. 1 fig., Bull. Mus. Nat. Hist. Natur., VII, 2e sér., 3, 178-182. Paris (1935). **b - 390**

*Leptocephalus Spallanzani*, *L. selene* et *L. filamentosus*. Diagnose, figuration, provenance, identification.

**Blanco G. J.** - The Development of the Homocercal Caudal of the Blue Perch, *Taeniotoca lateralis* Agassiz [*Quaestio de progressione pinnae caudalis homocercalis in « T. lateralis »*]. 1 pl., Philipp. Journ. Sc., LVI, 1, 41-45. Manila (1935). **b - 391**

The significant changes of the embryonic caudal fin of a larva 3 mm long to the homocercal caudal fin of the adult 21 cm long are described in detail for the first time.

**Blegvad H.** - Letters to the Editor [*Epistulae ad Editorem*]. Journ. Cons. Expl. Mer., X, 1, 99. Copenhague (1935). **b - 392**

Some critical remarks to A. Bückmann's article (in Journ. Cons. IX, 3, 1934) concerning the transformation of the plaice larvae in the Baltic.

**Bull H. O.** - Aquarium Observations on the Rate of Growth and Enemies of the Common Star-Fish *Asterias rubens* L. [*Observationes in aquario peractae quoad accretionis velocitatem et animalia obnoxia speciei « A. rubens »*]. Armstrong College, Dove Marine Labor. Rep. for the year ending July 31 st, 1934, Third ser. No. 2, 60-65. Cullercoats, Northumb. (1934). **b - 393**

Three individuals of the common starfish have been reared to maturity in aquaria. The average radius of arm in June of the year following settling was 4.2 cm., at the time of first spawning 11.4 cm. Spawning was at 5 years of age in two individuals, 6 years in the other; it was simultaneous in all three. The Sunstars, *Solaster papposus*, and *S. endeca*, and the Northern stone crab *Lithodes maia* feed in captivity mainly in the common starfish.

**Carere Comes O.** - Ricerche sull'accrescimento degli embrioni di *Hippocampus brevirostris* [*Investigationes in embryonum accretionem speciei « H. brevirostris »*]. Boll. Soc. Ital. Biol. Sper., IX, 1256-1258. Napoli (1934). **b - 394**

Gli embrioni si sviluppano nelle tasche incubatrici, riccamente vascolarizzate, del maschio e assumono attraverso l'epitelio, l'acqua e le sostanze minerali. Relazione fra le sostanze organiche che gli embrioni ricevono e le sostanze ossidate per il metabolismo embrionale.

**Cipria G.** - Uova, stadi embrionali e post-embrionali di *Blennius palmicornis* Cuv. [*Ova, stadia embryonalia et post-embryonalia in specie « B. palmicornis »*]. 1 tav., Mem. R. Comit. Talassogr. Ital., N°. CCXVIII, 1-12. Venezia (1934). **b - 395**

Uova, sviluppo embrionale e post–embrionale di *Blennius palmicornis* Cuv. e principali caratteri di uno stadio giovanile di mm, 25.00.

**De Gaetani D.** - Uova, sviluppo embrionale e stadi post-embrionali negli Sparidi. III. *Pagellus acarne* C. V. [*Ova, progressio embryonalis et stadia post–embryonalia in Sparidis*]. 1 tav., Mem. R. Comit. Talassogr. Ital., N°. CCXX, 20 pp., Venezia (1935). **b - 396**

Descrizione delle uova e dello sviluppo embrionale del *Pagellus acarne* C. V.; vengono dati i più salienti caratteri di sviluppo di una serie di stadi post–embrionali che vanno da una lunghezza di mm. 2,40 a mm. 30. Pigmentazione e prospetti delle misure somatiche e loro rapporti.

**Duboscq O. & Tuzet O.** - Un nouveau stade du développement des Eponges calcaires [*Stadium novum quoad progressionem in Spongiis calcariis*]. 4 fig., C. R. Acad. Sc., CC, 21, 1788-1790. Paris (1935). **b - 397**

La formation de l'amphiblastule définitive est due à un processus encore inconnu dans l'embryologie des Métazoaires. Les flagelles restent attachés pendant tout le développement au même pôle cellulaire et les cellules flagellées viendront se placer sous les choanocytes, à la suite d'un démasquage. Ce stade de démasquage détermine une inversion des surfaces, qui est tout autre chose que l'inversion des feuillets donnant ainsi un autre aspect du développement des Eponges que l'on n'avait admis jusqu'ici. (L. S.).

**Felicianno A. T.** - Studies on the Early Development of *Arachnoides placenta* (Linnaeus) [*Studium primae progressionis speciei « A. placenta »*]. 1 fig., 2 pl., Univ. Philipp. Natur. & Appl. Sc. Bull., III, 4, 405-435. Manila (1934). **b - 398**

Breeding time and breeding habits of this species. Shape and cleavage of the eggs. Rate of development. The blastula. The echinopluteus.

**Frost W. E.** - The Occurrence and Development of *Euphausia krohnii* off the South-West Coast of Ireland [*Praesentia et progressus speciei « E. Krohnii », extra litora meridionalia Hiberniae*].

Proc. R. Irish Acad., XLII, sect. B, N° 3., 17-40. Dublin (1934). **b - 399**

The normal habitat of *E. krohnii*. Breeding season. Detailed description of a series of larvae: metanauplius, furcilia and cyrtopia. No egg has been seen by the A.

**Garrault H.** - Formation des baguettes d'élastoïdine chez les embryons des Salmonides [*De bacillis elastoidinoforis in embryonibus Salmonidarum*]. C. R. Acad. Sc., CC, 14, 1248-1250. Paris (1935). **b - 400**

Résultats d'une étude du développement des baguettes d'élastoïdine chez l'embryon des Salmonides, entreprise dans le but de préciser le mécanisme de la formation de ces baguettes. D'après leur mode de formation, on doit considérer ces baguettes comme résultant de la séparation ou de la précipitation orientées d'une substance intercellulaire particulièrement insoluble; elles se développent dans le milieu intercellulaire, indépendamment de l'action directe des cellules et conformément au schéma donné par Baitsell et par Nageotte pour le développement des structures collagènes proprement dites.

**Hörstadius S.** - Ueber die Determination im Verlaufe der Eiachse bei Seeigeln. [*Determinationes quoad decursum axis embryonalis in Echinis*]. 57 fig., Boll. Staz. Zool. Napoli, XIV, 2, 251-429. Napoli (1934 & 35). **b - 401**

Untersuchungen über die ersten Stadien der Teilung des Seeigelkeimes und seine folgende Differenzierung.

**Hukuda H.** - On the Development of *Spratelloides japonicus* (Houttuyn) [*De accretione speciei « S. japonicus »*]. (In Jap.; Engl. Rés.). 21 figs., 3 tabl., Bull. Jap. Soc. Scient. Fish., II, 5, 229-240. Tokyo (1934). **b - 402**

This species belongs to the *Clupeidae* and is distributed from the seas of Indo-Australian Archipelago to Central Japan. Eggs and larvae. Differenciation from other clupeoid Fishes of Japan.

**Inaba D.** - On some Holothurian Larvae and Young from New Guinea [*De larvis deque juvenibus Holoturiarum Novae Guineae*]. 1 fig., 1 table, Bull. Jap. Soc. Scient. Fish., II, 5, 213-216 Contr. Zool. Labor. Imp. Fish. Inst. N° 30. Tokyo (1934). **b - 403**

Description of two large *Auricularia* and two young *Holothuria* found in the neighbourhood of New Guinea. The specimens presenting many remarkable features are compared with respectively *A. antarctica*, *A. plicata*, *A. nudibranchiata Chiridota rotifera* and *Leptosynapta inhaerens*.

**Inoh Shunpei** - Ueber die Ei-und Keimentwicklung bei *Fucus evanescens* [*De ovi et embryonis progressione speciei « F. evanescens »*]. (Jap. Text). 1 Abb., 2 Taf., Rep. Stat. Alg. Res. Fac. Sc. Hokkaido Imp. Univ., 3, 51-60. Sapporo (1934). **b - 404**

Nach einer eingehenden Beschreibung der verschiedenen Stadien der Keimentwicklung bei *Fucus evanescens* auch unter Vergleich mit *Ascophyllum*, *Pelvetia* usw. betont der Vf., in Bezug auf die Kleinheit des Eies von *F. evanescens*, dass diese mit der Nichtverzweigung der Rhizoidzelle Zusammenhang hat.

**Iwanoff P. P.** - Die embryonale Entwicklung von *Limulus moluccanus* [*« Limulus moluccanus ». Quaestio de eius accretione embryonali*]. 3 Taf., 78 Abb., Zool. Jahrb. Abt. Anat. u. Ontog. Tiere LVI, 2, 163-348. Leipzig (1933). **b - 405**

Eingehende Analyse der embryonalen Entwicklung. Vergleich mit den Trilobiten, Schlussfolgerungen in Bezug auf den Ursprung der *Xiphosura*.

**Jecklin L.** - Beitrag zur Kenntnis der Laichgallerten und der Biologie der Embryonen decapoder Cephalopoden [*Contributio in cognoscendas massas gelifactas ovorum atque etiam biologiam embryonum in cephalopodis decapodis*]. 22 Abb., Rev. Suisse d. Zool., LXI, 593-673. Genève (1934). **b - 406**

Diese Arbeit enthält vier Teile. Der erste behandelt den Bau des Laiches bei *Loligo vulgaris*, *Alloteuthis subulata*, *Sepia officinalis* und *S. robusta*; der zweite bezieht sich auf den Gehalt des Eies an Wasser und Mineralsubstanzen, der dritte auf die der Entwicklung des Eies vorangehenden physisch-chemischen Prozesse und der vierte auf die Hoyleschen Drüsen. Bibl.

**Johnson M. W.** - The Developmental Stages of *Labidocera* [*Labidocera. Stadia progressionis*]. 16 fig., 5 pl., 2 tabl., Biol. Bull., LXVIII, 3, 397-421. Lancaster, Pa. (1935). **b - 407**

The developmental stages of *L. trispinosa* and *L. jollae* are described and figures given. Each species passes through the typical six nauplius and six copepodid stages. Tables are given to facilitate identification of the nauplius and copepodid stages. Comparison with the larvae of the genus *Epilabidocera*.

**Kinoschita T. & Hirano Y.** - On the Optimum Temperature of the Embryonic Development of *Mactra sachalinensis* [*De optimum quoad temperaturam pro embryonali progressione speciei « M. sachalinensis »*]. 2 tables, 1 fig., Venus, IV, 6, 368-372. Kyoto (1934). **b - 408**

**Lebour M. V.** - Stomatopod Larvae [*Stomatopoda. Quaestio de eorum larvis*]. 5 figs., Mém. Mus. R. Hist. Natur. Belgique; Résult. Scient. voyage aux Indes Orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique. III, 16, 9-17. Bruxelles (1934). **b - 409**

*Alima spinigera* (?) Bonadaile; *A. hyalina* Leach; *Gonodactylus chiagra* (Fabricius) ?

**Lebour M. V.** - The Life-history of *Dromia vulgaris* [*Historia biologica speciei « Dromia vulgaris »*]. Proc. Zool. Soc. London, Pt. 2. London (1934). **b - 410**

Description of the five stages found in the life-histories of *D. vulgaris*. Discussion as to the systematic position of the genus. According to the A. the *Dromiacea* should stand apart as a distinct group.

**Lebour M. V.** - The Larval Stages of *Balcis alba* and *B. devians* [*De stadiis larvalibus specierum « Balcis alba » et « B. devians »*]. Journ. Mar. Biol. Assoc., XX, 1, 65-69. Plymouth (1935). **b - 411**

**Lin S. Y.** - The Development of the Cuttlefish, *Sepiella japonica* Sasaki [*Cyclus evolutionis speciei « S. japonica »*]. (In Engl. & Jap.). 6 pls., 4 tables, Bull. Chekiang Prov. Fish. Exper. Stat., I, 5, 1-24. Tinghai, Chekiang (1935). **b - 412**

Results of a study, carried out for the first time, of the embryology of *S. japonica* Sasaki, with special regard to the development of the ova in living state. Due attention is also given to the time required for incubation.

**Loosli M.** - Ueber die Entwicklung und den Bau der indifferenten und männlichen Larven von *Bonellia viridis* Rol. [*De progressione et constitutione larvarum indifferentium et masculi-*

*narum speciei «B. viridis»*]. 30 Abb., Pubbl. Staz. Zool. Napoli, XV, 1, 16-59. Napoli (1935). **b - 413**

Nach Spengel (1879) entwickelt sich aus dem Ei der *Bonellia* zunächst eine indifferente Larve, die sich entweder frei lebend zum Weibchen, oder, vorübergehend am Rüssel eines Weibchens der eigenen Art parasitierend, zum Männchen entwickelt. Die vorliegende Arbeit beschäftigt sich mit der Organisation der indifferenten und der durch Rüsselparasitismus vermännlichten Larve. (Vf.).

**Mac Kay D. C. G. & Weymouth F. W.** - The Growth of the Pacific Edible Crab, *Cancer magister* Dana [*Accretio cancri edulis «C. magister» Oceani Pacifici*]. 6 figs., 3 tabl., Journ. Biol. Bd Canada, I, 3, 191-212. Toronto (1935). **b - 414**

Approximately 20.000 measurements were made of Crabs and cast exoskeletons, chiefly from Boundary Bay, southern British Columbia. The conclusions are based on three types of evidence, moulting (increase per moult, and interval between moults), tagging, and size frequencies. The legal size in British Columbia (6 ½ inches, or 16.5 cm.) is probably attained during the seventh or eighth year. The average duration of life is probably about eight years and the maximum age not more than ten years.

**Markowski St.** - Einfluss der Milieuveränderungen auf die Entwicklung der Eier von *Bothriocephalus scorpii* (Müller 1776) [*Variationum ambientalium influentia in progressionem ovorum speciei «B. Scorpii»*]. 2 Tab., Bull. Int. Acad. Polon. Sc. & Lettres, Cl. Sc. Mathém. & Nat., 3/5 B II, 49-58. Cracovie (1935). **b - 415**

Vf. versucht festzustellen, ob die Eier des Bandwurmes *B. scorpii*, welcher gleichfalls in den Meeren mit vollem Salzgehalt (35 ‰) und auch in der Ostsee auftritt, sich im Süsswasser entwickeln können, Niedrigst möglicher Salzgehalt für die Entwicklung dieses Wurmes; Einfluss von Temperatur und Licht.

**Matvejev B. S.** - Sur le principe du développement corrélatif des organes [*Principium progressionis correlativae organorum*]. (En russe). Abstr. Works Inst. Zool. Univ., 2, 30-36. Moscow (1935). **b - 416**

Le présent ouvrage traite de l'analyse morphologique des phénomènes des variations corrélatives des organes au cours de leur développement, avec référence spéciale à l'influence du développement de certains éléments du squelette sur celui des autres éléments pendant l'ontogénèse. Comme exemples sont pris, entre autre, les poissons osseux pendant le développement des vertèbres antérieures (*Esox*, *Salmo*). Résumé des opinions des différents savants qui se sont occupés de ce problème.

**Miyasaki I.** - On the Development of *Paphia philippinarum* (Adams et Reeve) [*Quaestio de accretione speciei «P. philippinarum»*]. (In Jap.). 1 pl., Suisan Gakkwai Hô, VI, 2, 71-75. (1934). **b - 417**

Results of observations on dimensions, segmentation after the fertilization of the egg of *P. philippinarum*. Time of development for obtaining the trochophore and the shelled larva stage; the colour of the latter. Illustration of the consecutive development stages.

**Miyazaki I.** - On the Development of Some Marine Bivalves with Special Reference to the Shelled Larvae [*De accretione aliquorum animalium marinorum bivalvium. Agitur particulatim de larvis, conchis praeditis*]. 3 pls., 2 tabl. Journ. Imp. Fish. Inst., XXXI, 1, 1-10. Tôkyô (1935). **b - 418**

Description of the development of the shelled larvae of *Mytilus crassitesta* Lischke, *Teredo japonica* Clessin, *Anomia lischkei* Dautzenberg et Fischer, *Parapholas quadrizonata* Spenger, and *Lima basilanica* Adams et Reeve.

**Moore H. B.** - The Growth Rate of *Balanus hameri* (Ascanius) [*De rythmo accretionis speciei «B. hameri»*]. 4 figs., 2 tabl., Journ. Mar. Biol. Assoc., XX, 1, 57-63. Plymouth (1935). **b - 419**

Sixty specimens of *B. hameri*, of five successive year groups, were obtained in December, 1933, and further 33 preserved specimens taken in the winter of 1925 were examined. The mean ages contained for successive year groups from the size distribution and from individuals settled on those of the preceding year, yielded results in good agreement with one another. First-year individuals do not spawn. All oder individuals have ripe genital products in the 1933 material, and early embryos in the 1925 material. (A.).

**Nakamura Syûya** - Larvae and Young of Fishes Found in the Vicinity of Kominato I. *Ocynectes maschalis* Jordan and Starks [*Larvae et pisciculi qui reperti sunt apud* Kominato]. 3 figs., Journ. Imp. Fish. Inst., XXX, 3, 219-225. Tokyo (1934). **b - 420**

The spawning of *O. maschalis* seems to last from December to April. On January 30, 1933 an egg-mass was found agglutinated on *Sargassum* growing near sea-shore and was transferred to an acquarium for further examination. The embryo, the swimming and crawling stages of this species are described and compared with those of other forms.

**Narisawa Fujio** - The Distribution and the Rate of Growth of two Kinds of Algae at Yosida *Asakusa* Laver-farm in Mikawa Bay, in Relation to the Inflow of River Water [*Quaestio de distributione et accretionis velocitate in Algarum duabus speciebus, quae vivunt in collectione plantarum aquaticarum in* Asakusa (Yosida) *apud bajam* Mikawa, *relate ad influentiam aquae fluviatilis*]. (In Jap.; Engl. Rés.). 1 fig., Bull. Jap. Soc. Scient. Fish., IV, 3, 174-175. Tokyo (1935). **b - 421**

Observations of surface salinity have shown that the growth of *Monostroma nitidum* Wittrock was most favourable where the direct influence of river water is slight and that *Porphyra tenera* Kjellm. preferred the part where the salinity was intermediate or where river and sea waters run side by side. Sandy bottom as well as chemical substances of the sea water seem also to have a certain importance.

**Nybelin Orvar** - Ueber Eier und Larven der Rotzunge (*Pleuronectes cynoglossus* L.) [*Ova et larvae in «P. cynoglossus»*]. 13 Tab., 2 Taf. a. T., Sv. Hydrogr.-Biol. Komm. Skr., Ny ser. Biol., I, 7, 1-20. Stockholm (1935). **b - 422**

Das hier untersuchte Material ist während der Fahrten des schwedischen Untersuchungsdampfers «Skagerak» 1922-1930 eingesammelt worden und die Resultate sind in Tabellen mit Angabe von Datum, Station, Tiefe, Temperatur, Salzgehalt, Fanggerät, Anzahl Eier und Larven und Grösse der Larven wiedergegeben. Die Kapitel behandeln: Bestimmung der Eier und Larven. Die Laichplätze der Rotzunge im Skagerak-Nordseegebiet nach dem Vorkommen ihrer Eier und Larven beurteilt.

**Nicholls A. G.** - The Larval Stages of *Longipedia coronata* Claus, *L. Scotti* G. O. Sars, and *L. minor* T. and A. Scott, with a Description of the Male of *L. Scotti* [*De stadiis larvalibus specierum «Longipedia coronata», «L. Scotti»* et *«L. minor» Adiungitur descriptio masculi speciei» «L. Scotti»*]. 1 figs., 4 tabl., Journ. Mar. Biol. Assoc., XX, 1, 29-45. Plymouth (1935). **b - 423**

The nauplius stages of three *Longipedia* species are described, and the segmentation and armature of the appendages of *L. coronata* are given in tabular form. The main features in the external structure of the copepodite stages are summarised in a table. Additional points of resemblance between the nauplii of *Longipedia* and the cirripèdes are presented. Notes are given on breeding and development under Laboratory conditions: there is no evidence of parthenogenesis. Feeding in the copepodite stage of *Longipedia* is described. A description is given of the hitherto unknown male of *L. Scotti*.

**Nouvel H.** - Le nématogène fondateur de *Dicyemennea eledones* Whit. et sa larve [*De nematogeno fundatore speciei « D. eledones » eiusque larva*]. 1 fig., C. R. Acad. Sc., CCI, 27, 1507- 1509. Paris (1935). **b - 424**

L'A. a pu obtenir au Musée Océanographique du Monaco un grand nombre de jeunes *Eledone aldrovandi* et dans leurs sacs rénaux, il a pu constater l'infestation par *Dicyemennea eledones*, qui ne se produit pas avant que l'hôte ait atteint le poids de 2g,5. Dans des individus de 2g,5 à 4g il a rencontré un certain nombre de nématogènes fondateurs à des stades divers, dont un, tout à fait larvaire. Il décrit les traits les plus remarquables de l'organisation de cette dernière phase.

**Okada Yô K.** - Les jeunes Physalies. Note supplémentaire sur le développement postembryonnaire de la Physalie [*Physalia juvenes. Nota additicia de progressione post-embryonali in Physaliis*]. 3 fig., Mem. Coll. Sc., Kyoto Imp. Univ., Ser. B., X, 5, Art. 19 (Contr. Seto Mar. Biol. Labor. N° 42). Kyoto (1935). **b - 425**

Quatre stades primaires du développement postembryonnaire de la physalie pacifique sont illustrés et par leur comparaison est mis en évidence l'ordre de stade d'un seul polype.

**Oppenheimer J. M.** - Experiments in early developing Stages of *Fundulus* [*Experientiae de primis progressionis stadiis in « Fundulus »*]. Proc. Nat. Acad. Sc. Washington, XX, 536-539. Washington (1934). **b - 426**

Results of experiments of implantation and grafting in the embryos of *Fundulus* in the first stages (from one to 128 cells).

**Orton J. H.** - Laws of Shell-growth in English Native Oysters [*De concharum accretione in « Ostrea edulis »*]. 1 fig., Nature, CXXXV, 3409, 340-341. London (1935). **b - 427**

A definite relation is found by the A. between the mean diameter, or the mean axis, of the English native oyster and the volume of the entire animal; this relation is similar to that between the diameter, or thickness, and volume of a segment of a sphere. The A. believes that the probable increase of the stock on an oyster-bed in a given time could be predicted, given sufficient observations. (Nature's abstract on page 346).

**Orton J. H.** - Biology of Growth and Breeding [*Accretionis et culturae biologia*]. Nature, CXXXV, 3413, 509. London (1935). **b - 428**

In the case of animals which can live under various temperature conditions (non-stenothermic) there may be temperatures which are favourable for growth and not for breeding. The A. finds that the oysters in the Fal Estuary show a larger spring growth than those in the River Blackwater; he ascribes this to the different temperatures. (Nature's abstract on page 511).

**Raja M.** - Ricerche sull'accrescimento postembrionale del *Loligo vulgaris* Lam. [*Investigationes in accretionem postembryonalem speciei « L. vulgaris »*]. Arch. Zool. Ital., XXI, 1, 447-474. Napoli (1935). **b - 429**

È stato esaminato l'accrescimento del *Loligo vulgaris* del golfo di Napoli e le variazioni ponderali del mantello, dei gangli cerebrali, dei gangli ventrali, dei gangli stellari, dell'occhio, del cristallino, dei corpi bianchi, dei cuori branchiali, delle branchie, del fegato, della borsa del nero, del becco e del guscio. I rapporti tra il peso dei singoli organi e il peso dell'intero organismo sono stati studiati servendosi dell'equazione di Huxley: $\gamma = bxK$.

**Ranzi S.** - Le basi fisio-morfologiche dello sviluppo embrionale dei Selaci [*Fundamenta physio-morphologica progressionis embryonalis in Selacis*]. Parti II, III. 54 fig., Pubbl. Staz. Zool. Napoli, XIII, 3, 331-437. Napoli (1934). **b - 430**

Ricerche sulla composizione del liquido uterino e sulla istofisiologia dell'utero e della placenta delle varie specie di Selaci, con esposizione dei metodi di ricerca relativi.

**Russell F. S.** - On the Occurrence of Postlarval Stages of the Bass, *Morone labrax* (L.) in the Plymouth Area [*De stadiis post-larvalibus speciei « Morone labrax » in regione* Plymouth]. Journ. Mar. Biol. Assoc., XX, 1, 71-72. Plymouth (1935). **b - 431**

The post-larval stages of the bass have been found for the first time in these waters.

**Russell F. S.** - The Seasonal Abundance and Distribution of the Pelagic Young of Teleostean Fishes Caught in the Ring-trawl in Offshore Waters in the Plymouth Area. Part II [*Copia pro anni tempore atque distributio juvenum pelagicorum Teleosteorum retis annularis trahentis auxilio captorum, in aquis longe a litoribus regionis* Plymouth]. 8 figs., 4 tabl., Journ. Mar. Biol. Assoc., XX, 2, 147-179. Plymouth (1935). **b - 432**

The seasonal composition of the catches of postlarval stages of teleostean fish is considered and it is shown that there is a gradual change over from the young of northern species of fish to those of more southern species as the summer advances. The relation between the spawning times of closely related species appears usually to be a function of their geographic distribution. The period of maximum abundance of post-larvae of spring-spawning fish occurs at different times in different years and this difference may be as much as a month. There seems to exist a correlation between the time in which the young fish are abundant and the temperature of the water.

**Sanzo L.** - Uova, sviluppo embrionale, stadi larvali, post-larvali e giovanili di *Sternoptychidae* e *Stomiatidae*. *Sternoptychidae*. III. *Maurolicus Pennanti* (Walb.) [*Ova, accretio embryonalis, stadia larvalia, post larvalia et juvenilia in « M. Pennanti »*]. II Monogr., 5 fig., 3 tav., 34 tab., 121-188, R. Comit. Talassogr. Ital., Ferrari. Venezia (1935). **b - 433**

L'A. dà la descrizione dei principali caratteri dell'adulto del *Maurolicus*: il numero dei raggi e delle vertebre, lo scheletro cefalico, la distribuzione degli organi luminosi, ecc. ed inoltre riferisce sullo sviluppo embrionale e post-embrionale di questo pesce considerando separatamente l'aspetto delle uova mature e fecondate, i caratteri principali della larva appena schiusa e fino al 20° giorno di coltura, e i diversi stadi di *Maurolicus* pescati nello Stretto di Messina. Sguardo riassuntivo dei caratteri più salienti durante lo sviluppo giovanile: forma, pigmentazione, fotofori, pinne.

**Schmidt G. A.** - Ein zweiter Entwicklungstypus von *Lineus gesserensis-ruber* O. F. Müll. (Nemertini) [*De altero quodam typo quoad progressionem in « L. gesserensis-ruber »*]. 36 Abb., Zool. Jahrb. Anat., LVIII, 607-660. Jena (1934). **b - 434**

Zwei verschiedene Typen von Laich, mit verschiedener Entwicklung, werden bei *Lineus* sowohl bei Roscoff wie an der Murman-Küste unterschieden und mit einander verglichen. Diese Larven sind von roten oder grünen Individuen entsprossen, d. h. zwei Varietäten von *Lineus gesserensis*.

**Shen C. J.** - An Investigation of the Post-Larval Development of the Shore-Crab *Carcinus maenas*, with special Reference to the external secondary sexual Characters [*Investigationes in*

*postlarvalem progressionem speciei « C. maenas ». Agitur particulatim de caracteribus sexualibus secundariis externis*]. Proc. Zool. Soc., Part I, 1-34. London (1935). **b - 435**

**Smith J. E.** - The early Development of the Nemertean *Cephalothrix rufifrons* [*De prima accretione in nemertino « C. rufifrons »*]. 3 figs., 2 pls., Quart. Journ. Microsc. Sc., LXXVII, 335-381. London (1935). **b - 436**

Detailed analysis of the process of development until the swimming larva, in which the different organs are already outlined. Deviations from this type of direct development.

**Smith W. C.** - Growth of the young Lobster [*Accretio juvenis speciei « Homarus vulgaris »*]. 2 fig., tabl., Proc. & Trans. Liverpool Biol. Soc., XLVIII, 51-60. Liverpool (1935). **b - 437**

The present paper is a continuation of the account of an experiment in lobster-rearing at Port Erin Marine Biological Station two years ago (Proc. & Trans. Liverpool Biol. Soc., XLVII) and is mainly concerned with the growth of the surviving Lobsters during the nineteen months following the first period after hatching.

**Sparta A.** - Uova e larve di *Gobiidae*. II. *Gobius jozo* L. [*Quaestio de ovis et larvis in Gobiidis*]. 1 tav., Mem. R. Comit. Talassogr. Ital., No. CCXVI, 1-10. Venezia (1934). **b - 438**

Si fanno conoscere le uova, e le larve appena schiuse e al 5° giorno di vita di *Gobius jozo* L.

**Sparta A.** - Contributo alla conoscenza dello sviluppo nei Percidi. Uova ovariche mature di *Epinephelus guaza L.* e stadi post-embrionali e larvali di *Epinephelus alexandrinus* Cuv. e Val. [*Contributio in accretionem cognoscendam in Percidis. Ova ovarica matura speciei « E. guaza » atque stadia post embryonalia et larvalia speciei « E. alexandrinus »*]. Mem. R. Comit. Talassogr. Ital., No. CCXXIV, 1-13. Venezia (1935). **b - 439**

Si descrivono le uova ovariche di *Epinephelus guaza L.*, e sette stadi post-embrionali di *Epinephelus alexandrinus* Cuv. e Val. Il lavoro è completato da osservazioni biologiche, sullo stato di maturità sessuale e sulla ecologia di queste specie. Sono riportati alcuni dati somatometrici.

**Spirito A.** - Studio sul comportamento delle perossidasi durante lo sviluppo embrionale [*Studium rationis agendi peroxidasium inter accretionem embryonalem*]. Boll. Soc. Ital. Biol. Sper., IX, 901-904. Napoli (1934). **b - 440**

Ricerche su uova di *Petromyzon*, *Salmo*, *Esox*, *Barbus* e di alcuni anfibi. Distribuzione delle perossidasi nell'uovo.

**Steuer A.** - Postembryonalentwicklung von *Rhincalanus gigas* Brady [*Accretio post-embryonalis in « Rhincalanus gigas »*]. 4 Abb., Sitz. ber. Akad. Wiss. Wien, CXLIV, 7/8, Abt. 1, 383-390. Wien (1935). **b - 441**

Beschreibung des dritten, vierten, fünften und sechsten Naupliusstadiums und des ersten, zweiten und dritten Copepoditstadiums. Tiefenausbreitung. Laichverhältnisse.

**Strodtmann S.** - Das Wachstum der Schollen in der Ostsee [*Accretio speciei « Solea vulgaris » in mari Baltico*]. 7 Tab., 1 Karte, Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VII, 4, 363-380. Leipzig (1935). **b - 442**

Frühere Feststellungen in Bezug auf das Wachstum. Das jetzige Wachstum. Theoretische und praktische Schlussfolgerungen: Für das Wachstum geltende Regeln. Berücksichtigung der Aufwachsgemeinschaften. Verpflanzung von Schollen aus der östlichen Ostsee in die westliche. Schutzmassregeln.

**Svetovidov A.** - On the Growth of the Baikal Whitefishes and Graylings [*De accretione generum « Coregonus » et « Thymallidae » lacus* Bajkal]. (In Russ., & Engl.). 2 tabl. C. R. Acad. Sc. U. R. S. S. III, 8/9, 661-665. Leningrad (1934). **b - 443**

Data on the growth of graylings and whitefishes from the Baikal Sea; comparison of the growth rate of these Baikal species with such of the same species in Siberian rivers and with the growth rate of the Caspian herring. Causes of the rapid growth of Baikal Fishes.

**Terao Arata** - Cross between the Cod, *Gadus macrocephalus* Tilesius and the Salmon, *Oncorhynchus keta* (Walbaum) [*Permixtio inter « G. macrocephalus » et « O. keta »*]. (In Jap.). Jap. Journ. Genetics, IX, 3, 183. Tokyo ? (1934). **b - 444**

Successful crossing. The young of this hybrid resemble the young salmon but are more delicate.

**Tortonese E.** - Le variazioni somatiche degli Asteroidi in rapporto all'età [*De variationibus somaticis in Asteroideis pro aetate*]. 4 fig., Arch. Zool. Ital., XXI, 1-17. Napoli (1935). **b - 445**

L'A. richiama l'opportunità di distinguere il periodo post-larvale degli asteroidi in una fase giovanile ed una fase adulta, che ha inizio con l'entrata in funzione degli organi riproduttori. Le piccole stelle di mare possono differire dagli adulti per un numero di raggi maggiore o minore, per avere le braccia proporzionatamente più corte, per vari caratteri scheletrici, ecc. In qualche caso, i giovani sono così profondamente diversi che furono descritti come specie a sè. Lo studio delle variazioni che accompagnano l'accrescimento degli Asteroidi è interessante per la biologia e per la sistematica.

**Ubisch (v.) L.** - Entwicklungsphysiologie, Faktorenanalyse an Seeigelkeimen [*De physiologia accretionis deque analysi factorum qui influunt in embryones Echinoideorum*]. 9 Abb., Rev. Suisse Zool., XLI, 371-381. Genève (1934). **b - 446**

Bericht über Kreuzungs-und Implantations - versuche mit *Parechinus microtuberculatus* und *Echinocardium cordatum*. Es wird die grosse Bedeutung der Micromeren für die Skelettbildung der Larven bewiesen.

**Zenkovitch B. A.** - Sur les embryons des baleines [*De embryonibus Balaenarum*]. (En russe). 5 tabl., Rybn. Choz. Daljn. Vostoka, XIII, 1, 83-88. Khabarovsk (1935). **b - 447**

L'A. communique les résultats de ses mesures de 45 baleines femelles et de leurs embryons, réunis dans 5 tableaux, contenant les indications sur les dimensions de la mère et de l'embryon, l'âge de l'embryon (nombre des jours), la date et le lieu de l'observation et la date supposée de l'engendrement. Les observations se rapportent à des exemplaires de *Megaptera nodosa*, *Rhachianectus glaucus*, *Balaenoptera physalus*, *B. musculus*, *B. borealis* et *Hyperodon rostratus*.

**Zerling M. R.** - Action de la thyroxine et de quelques substances chimiquement voisines sur le développement des larves d'oursin [*De actione thyroxinae et aliquarum substantiarum in larvarum Echini accretionem*]. 4 fig., Bull. Inst. Océanogr., 678, 1-11. Monaco (Princ.) (1935). **b - 448**

Etude de l'action de la thyroxine sur le développement des larves des oursins, *Psammechinus miliaris* et *Paracentrotus lividus*, en essayant de préciser quelques unes des modalités de cette action et sa relation aux fonctions chimiques libres dans la molécule. L'A. conclut dans le sens que l'addition de thyroxine au milieu dans lequel se développent les larves, a une influence nette sur la croissance et la différenciation de celles-ci.

# BIOCHEMIA

## Chemia biologica et metabolismum vitale. - Actio substantiarum chemicarum in organismis.

**Aoki Katu** - Studies of the Mucous Substance of *Gloiopeltis*. I. [*Studium substantiae mucosae in « Gloiopeltis »*]. (In Jap.; Engl. Rés.). 5 tabl., Bull. Jap. Soc. Scient. Fish., III, 6, 359-361. Tokyo (1935). **b - 449**

In view of the utilization of the mucous substances of *Rhodophyceae*, especially agar–agar, carragheenschleim, and the mucous substance from *Gloiopeltis tenax* (Turn) J. Ag. in various industries, the A. has studied the viscosity of mucous substances of *G. furcata* P. and R. and of *G. tenax* (Turn) by measuring the time required for 50 cc. of materials to drop down from a Redwood's viscosimeter.

**Barry V. & Dillon T.** - On the Preparation and Properties of Alginic Acid and on the Extraction of Marine Algae with various Solvents. (Prel. Note) [*De comparatione et peculiaritatibus acidi alginici deque eiusdem extractione ab Algis marinis, variis solventibus.* (*Nota prior*)]. Scient. Proc. R. Dublin Soc., N. S. XXI, 165–166. Dublin (1935). **b - 450**

**Beatty S. A.** - Water Exchange in Scallop Muscle [*Aquae permutatio in musculo speciei « Pecten »*]. Ann. Rep. Biol. Bd Canada, 1933, 49–51. Ottawa (1934). **b - 451**

Results of a research started by fishermen to detect the swelling of scallop meats. Such swollen meats do not only give a low food value, but are more liable to spoilage because of their more liquid character. It has been shown that the scallop meats, at least for one period of the year, have a very constant water content, and that swelling in water can be detected rapidly.

**Belopoljskij M. P. & Maximov O. B.** - Sur les caractéristiques chimiques de la graisse des Salmonidés du Primorjé [*Peculiaritates chemicae quoad crassum Salmonidarum regionis* Primorje]. (En russe). 5 tabl., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 68-71. Moskva-Khabarovsk (1934). **b - 452**

Résultats de l'analyse chimique de 4 espèces de Salmonidés répandus dans les provinces maritimes de l'Extrême Orient russe et précisément: *Salvelinus leucomaenis* Pall., *Hucho perryi*, *Oncorhynchus masu* et *O. keta*.

**Belopoljskij M. P. & Maximov O. B.** - Hydrogenation of the Solid Fraction (« Stearine ») of the Japanese Sardine Oil [*De hydrogenatione fractionis solidae olei sardinae japonicae*]. (In Russ., Engl. Summ.). 9 tabl., Vestn. Daljnevost. Fil. Akad. Nauk, 9, 1-6. Khabarovsk (1934). **b - 453**

Description of an investigation conducted on the hydrogenation of the solid fraction of the oil of *Sardinops melanosticta*, and on the conditions to be observed in order to obtain a hard deodorized product.

**Bergmann W. & Johnston T. B.** - Beiträge zur Chemie der Meerestiere. I. Untersuchungen an dem Schwamm *Microciona porifera* [*Inquisitiones de « Microciona porifera ». Studia chemica de animalibus marinis*]. Hoppe-Seyler's Ztschr. Physiol. Chem., CCXXII, 220–226. Strassburg (1933). **b - 454**

**Boucher–Firly S.** - Recherches biochimiques sur les Téléostéens Apodes (Anguille, Congre, Murène) [*Inquisitiones biochemicae de Teleosteis apodis.* (*« Anguilla vulgaris », « Conger vulgaris », et « Muraena helena »*)]. Ann. Inst. Océanogr., XV, 2 (nouv. série), 217-327. Paris (1935). **b - 455**

Etudes sur l'adaptation des poissons sténohalins et euryhalins aux changements de salinité. Techniques utilisées au cours des recherches. Remarques biologiques, rapport gonosomatique et étude de l'anguille en eau douce et en eau de mer: modifications du milieu intérieur. Relations entre les éléments minéraux, azotés, les sucres et les corps gras de l'anguille, dans les deux milieux extérieurs.

Analogues recherches sur Congre et Murène. Mesure de leur pression osmotique et influence des variations de salinité. Les modifications qui résultent au cours du développement et des variations de salinité, causes qui peuvent modifier le milieu intérieur et interdépendance des éléments biochimiques du sang. Mécanisme de la mort des poissons d'eau douce transportés dans l'eau de mer. Bibl.

**Brand (v.) T.** - Methods for the Determination of Nitrogen and Carbon in Small Amounts of Plankton [*Methodus determinandi nitrogeni et carbonis in parvis quantitatibus planctonicis*]. 2 tabl., Biol. Bull., LXIX, 2, 221-232. Lancaster, Pa. (1935). **b - 456**

The method of Krogh and Keys for nitrogen determination is adapted for determinations on plankton. The range of nitrogen to be determined is O.5 – 5γ, the accuracy about 10 per cent. A method for the determination of small amount of carbon for the same purpose is described. Amounts of 10 to 100γC can be determined with an accuracy of about ± 3γC. (A.).

**Chaigne M.** - Recherches biochimiques sur le glycogène des Invertébrés [*Investigationes biochemicae in glycogenum Invertebratorum*]. Graph., tabl., Bull. Stat. Biol. Arcachon, XXXI, 1-79. Bordeaux (1934). **b - 457**

Compte rendu des résultats d'une longue série de recherches sur les variations du glycogène dans les organes des Invertébrés, faite en partant de l'idée directrice que le glycogène joue vraisemblablement chez les êtres un rôle plastique important encore mal connu. Après un aperçu historique rapide du sujet, une liste des animaux étudiés, et la technique adoptée (méthode de Pflüger légèrement modifiée), l'A. donne une étude comparative et générale concernant la répartition du glycogène dans les différents organes des Invertébrés étudiés, la surproduction et la mobilisation du glycogène à l'époque de la mue des Crustacés, la surcharge en glycogène des organes reproducteurs au moment de la ponte et le teneur en glycogène des œufs.

**Delaunay H.** - Le métabolisme de l'ammoniaque d'après les recherches relatives aux Invertébrés [*De metabolismo ammoniacae ex investigationibus in Invertebratis*]. Ann. Physiol. et Physicochem. Biol., X, 695-729. Paris (1934). **b - 458**

La comparaison entre l'excrétion des Invertébrés aquatiques et terrestres nous amène à conclure que les premiers excrètent ammoniaque et les autres acide urique et urée ce qui serait en rapport au métabolisme, à l'épuration des liquides du milieu intérieur et à la quantité de l'eau en circulation dans l'organisme.

**De Marco R.** - Sulla dose tossica mortale della morfina nei Teleostei marini [*Dosis mortifera morphinae in Teleosteis marinis*]. Mem. R. Comit. Talassogr. Ital., Nº CCXIII, 3-19. Venezia (1934). **b - 459**

Ricerche per stabilire l'azione generale e la dose tossica mortale della morfina iniettata a *Heliastes Cromis*, *Cerna gigas*, *Box boops*, *B. salpa*, *Julis julis*, *J. Giofredi* e *Mugil cephalus*. Piccole dosi di morfina determinano dapprima un aumento della attività respiratoria seguito poi da depressione e scarsa reazione agli stimoli. Determinazione delle dosi letali per le varie specie esaminate. Fenomeni di esoftalmia.

**De Marco R.** - Sulla dose tossica mortale della cocaina nei Teleostei marini [*Dosis mortifera cocainae in Teleosteis marinis*]. Mem. R. Comit. Talassogr. Ital., Nº CCXIX, 3-12. Venezia (1934). **b - 460**

Iniezioni endomuscolari di piccole dosi di cloridrato di cocaina in *Box boops*, *Mugil cephalus*, *Oblata melanura*, *Pagellus eritrinus*, *Scorpaena scrofa*, producono un aumento degli atti respiratori e dei movimenti di locomozione. Determinazione delle dosi tossiche mortali nelle varie specie.

**Denstedt O. F. & Brocklesby F. N.** - Fish Oils. V. The Effect of various Treatments on the Rate of Oxidation of Pilchard Oil [*Olea piscium. V. Effectus ex diversis tractationibus in velocitatem oxidationis olei speciei « Clupea pilchardus »*]. 6 figs., Journ. Biol. Bd Canada, I, 6, 487-496. Toronto (1935). **b - 461**

This paper is the second of a series concerning, the drying properties of Canadian Pilchard Oil. The subject of oxidation is discussed separately from the drying of the oil and the properties of films. These topics will be dealt with in the next paper of the group.

**Florkin M. & Bosson G.** - Sur l'azote sanguin et l'azote urinaire d'un Mollusque Lamellibranche (*Anodonta cygnea*) [*De azoto sanguineo atque urinario molusci cuiusdam Lamellibranchiati*]. 1 tab., C. R. Soc. Biol., CXX, 40, 1368-1369. Paris (1935). **b - 462**

Les concentrations de l'azote total, l'azote protéinique et de l'azote non protéinique de l'urine, chez les Anodontes étudiées, sont plus élevées que celles du plasma sanguin. La teneur en azote protéinique de l'urine est plus forte que sa teneur en azote non protéinique: l'urine de *Anodonta cygnea* représente un produit de concentration. (L. S.).

**Fowler L. H.** - Relative Effect of biologically conditioned and other extremely hypotonic Water on the Tissues of the Marine Turbellarian, *Procerodes wheatlandi* [*Agitur de aqua, condicionibus praedita specialibus biologicis, deque aqua maxime hypotonica quoad effectum relativum in texta speciei « Procerodes wheatlandi »*]. 11 figs., Physiol. Zool., VIII, 2, 228-245. London (1935). **b - 463**

A comparison of the state of preservation of the tissues of worms in hypotonic sea water with the tissues of worms in hypotonic biologically conditioned water of comparable electrical resistance shows that the worms from the latter were in a better state of histological preservation after comparable exposure. This study does not present a further explanation of the protective phenomena but lends support to the evidence and conclusions of Allee. (From A:s rés.).

**Galtsoff P. S.** - The Biochemistry of the Invertebrates of the Sea [*De biochemia in Invertebratis marinis*]. 2 figs., Ecol. Monogr., IV, 3, 481-490. Brooklyn (1934). **b - 464**

The A. discusses the concentration of Zn by Lamellibranchs and Gastropods; J, Fe, and Cu by Oysters, Clams, and Algae. On the basis of the chemical composition of the material used for the building of skeletons and shells, 4 principal groups are distinguished: carbonate group, phosphate group, sulphate series and silicate series. Their different forms and their evolution.

**Guttman R.** - Differential Oxygen Uptake of Regions of *Limulus* Optic Nerve as Related to Distance from the Sense Organ [*De absorptione differentiali oxygeni singularum sectionum nervi optici in specie « Limulus polyphemus » pro distantia ab organo sensorio*]. 1 graph., 1 table. Biol. Bull., LXIX, 3, 356-360. Lancaster, Pa. (1935). **b - 465**

Results of thirteen experiments on the differential rate of oxygen uptake of the optic nerve of *Limulus polyphemus*, investigated by means of a differential volumeter, showing in every case that the respiration of the distal end was lower than that of the proximal region, and that the average difference between maximal and minimal rates in a nerve was 36 per cent.

**Haas P.** - The Liberation of Methyl Sulphide by Seaweed [*De liberatione methylsulphuri ex « Fucus »*]. Biochem. Journ., XXIX, 1297-1299. London (1935). **b - 466**

**Hayes F. R.** - Variation in Size and in Nitrogen Requirements during Early Development of the Sea-Urchin, *Echinometra lucunter* [*De magnitudinis variationibus deque nitrogeni necessitatibus inter primam accretionem speciei « Echinometra lucunter »*]. Pap. Tortugas Lab., XXVIII, 181-193. Washington (1934). **b - 467**

**Kruta V.** - Sur l'action de l'adrenaline, de l'ergotamine et du pipéridino-methylbenzodioxane sur le cœur de la Seiche. (*Actio aliquarum substantiarum chemicarum in corde speciei « Saepia officinalis »*]. C. R. Soc. Biol., CXIX, 16, 106-107. Paris (1935). **b - 468**

**Labbé A.** - La fonction silicigène chez les Silicodermés [*De functione silicigena in Silicodermatis*]. C. R. Acad. Sc., CC, 22, 1880-1882. Paris (1935). **b - 469**

Il y a chez les Silicodermés un métabolisme de la silice, au sujet duquel on a des données morphologiques, mais dont on ignore le mécanisme chimique. Le métabolisme des Silicodermés paraît totalement différent de celui des Eponges.

**Langstroth G. O.** - Light Absorption–Age Relations in Juice Expressed from Fish Muscle [*Correlationes inter lucis absorptionem et aetatem quae observatae sunt in succo secreto a piscis musculo*]. Ann. Rep. Biol. Bd Canada, 1933, 57-58. Ottawa (1934). **b - 470**

Brief account of the work carried out with the object of ascertaining whether or not the reactions which go on in the fish muscle after death change the physical characteristics of the juice and of the correlation between the change in the absorption coefficient and the point to which the reactions had progressed. The preliminary work performed indicates that the change in absorption is the result of at least two series of reactions. The experiences have been made with juice expressed from cod stored under definite sets of conditions for four fish.

**Ledrut J.** - Sur les effets hypoglycémiants de l'injection intraduodénale d'acide chlorhydrique dilué chez *Raja clavata* [*De effectibus hypoglycemicis iniectionis intraduodenalis acidi chlorhy-*

*drici diluti in «Raja»*]. 4 tabl., Bull. Classe Sc., XX, 12, 5 série, 1183-1190. Bruxelles (1934–35). **b - 471**

Recherches faites par l'A. dont il résulte, que la sécrétion formée physiologiquement au niveau du duodénum sous l'influence du chyme acide entraîne une chute glycémique marquée, chez *Raja clavata*, même en l'absence de sécrétion insulienne.

**Lovern J. A.** - Fat Metabolism in Fishes. VI. The Fats of some Plankton *Crustacea* [*De crassi metabolismo in piscibus. VI. De crassis aliquorum Crustaceorum planctonicorum*]. Biochem. Journ., XXIX, 847-849. London (1935). **b - 472**

**Lovern J. A.** - Fat Metabolism in Fishes. VII. The Depot Fats of certain Fish fed on known Diets [*De metabolismo substantiarum crassarum in piscibus. VII. De crassis depositis aliquorum piscium, nota dieta nutricatorum*]. Biochem. Journ., XXIX, 1894-1897. London (1935). **b - 473**

**Philippot E.** - Note sur l'iode des huîtres superiodées [*Nota de jodio in Ostreis superjodatis*]. Tabl., Bull. Stat. Biol. Arcachon, XXXI, 101-106. Bordeaux (1934). **b - 474**

L'A. donne le résumé des résultats des recherches qui ont été faites en vue de fixer de fortes quantités d'iode dans le corps des huîtres vivantes superiodées et communique en même temps les résultats de ses propres expériences effectuées dans le même but.

**Roche J. & Dumazert C.** - Sur la glycémie de *Cancer pagurus*. Nature des substances réductrices et facteurs de variation de la glycémie [*Natura substantiarum reductricium et factorum variationis glycemicae in « Cancer pagurus »*]. C. R. Soc. Biol., CXX, 40, 1225-1227. Paris (1935). **b - 475**

L'hémolymphe de *Cancer pagurus* contient des substances réductrices dont une partie est fermentescible par la levure du bière et l'autre est précipitée par l'hydrate de cadmium. Le glucose est le principal sinon le seul hexose de l'hémolymphe. Il existe chez cet animal un mécanisme régulateur de la glycémie assez efficace, qui est très différent de celui des animaux supérieurs. (L. S.).

**Runnström J.** - Acid Formation in Frozen and Thawed *Arbacia punctulata* Eggs and its possible Bearing on the Problem of Activation [*De acidi formatione in ovis gelidis et egelidis speciei « A. punctulata », pro correlatione probabili cum activationis problemate*]. Biol. Bull., LXIX, 3, 345-350. Lancaster, Pa. (1935). **b - 476**

In a previous work it has been found that the activation process is accompanied by an acid formation which has been demonstrated by manometric methods. A comparative strong acid formation takes place also when the eggs are broken by distilled water. It seems possible that the acid formation in both cases has the same chemical basis. The present paper has to be regarded as a first approach to a closer study of the question, which has a bearing on the understanding of the activation process.

**Runnström J.** - Influence of Iodoacetate on Activation and Development of the Eggs of *Arbacia punctulata* [*De influentia acetati jodici in activationem et progressionem ovorum speciei « A. punctulata »*]. Biol. Bull., LXIX, 3, 351-355. Lancaster, Pa. (1935). **b - 477**

Brief report of experiments which prove that monoiodoacetate does not inhibit the fertilization process in the *A. punctulata* egg. Iodoacetate in the concentration (0.03 m) used in these experiments is harmful to the development of fertilized eggs. There is a remarkable difference in resistance between unfertilized and fertilized eggs. The morphological defects caused by a treatment of eggs by iodoacetate before fertilization are prevented by addition of pyruvate to the fertilized eggs.

**Sumner F. B. & Wells N. A.** - Some Relations Between Respiratory Metabolism in Fishes and Susceptibility to Certain Anesthetics and Lethal Agents [*Correlationes inter metabolismum repiratorium piscium eorumque suscipiendi possibilitatem pro anestheticis et letalibus substantiis*]. Biol. Bull., LXIX, 3, 368-378. Lancaster, Pa. (1935). **b - 478**

Results of experiments made upon two species of teleost fishes, *Fundulus parvipinnis*, and *Gillichthys mirabilis*; the anesthetics used were urethane, chloretone, and ether, the lethal agents, NaCN, KCN, asphyxiation and excessive temperature. From these results the inference seemed warranted that differences in the temperature history of the fishes concerned resulted in differences in metabolic rate, which manifested themselves both in the visible rate of respiration of these fishes and in their susceptibility to certain anesthetics and lethal agents.

**Ten Cate J.** - L'action de quelques substances pharmacologiques sur le ganglion stellaire des Céphalopodes [*Actio aliquarum substantiarum pharmacologicarum in ganglium stellare Cephalopodorum*]. Arch. Néerl. Physiol. Homme et Animaux, XVIII, 1-14. La Haye (1933). **b - 479**

Expériences sur *Octopus vulgaris* et *O. macropus*. L'A. a injecté adrénaline, acéthylcholine, pilocarpine, nicotine, strychnine, atropine, curare et phénol; leur action sur la variations des fonctions, non seulement des chromatophores mais aussi de la musculature du manteau. Il est pourtant naturel de supposer que dans le ganglion stellaire des Céphalopodes il y a des éléments nerveux.

**Waksman S. A., Carey C. L. & Allen M. C.** - *Bacteria* decomposing Alginic Acid [*Bacteria quae acidum alginicum dissolvunt*]. Journ. Bacteriol., XXVIII, 213-220. Baltimore (1934). **b - 480**

**Wells N. A.** - Change in Rate of Respiratory Metabolism in a Teleost Fish Induced by Acclimatization to High and Low Temperature [*De mutationibus quoad gradum metabolismi respiratorii cuiusdam piscis teleostei, per acclimatationem excitatis, alta et demissa temperatura*]. 1 graph., Biol. Bull., LXIX, 3, 361-367. Lancaster, Pa. (1935). **b - 481**

The results of two experiments are presented, showing the effect on the oxygen metabolism produced by acclimatizing fishes to high and low temperature. It is concluded from an analysis of these data that fishes acclimatized to a high temperature have a much lower rate of metabolism at a common intermediate temperature than fishes acclimatized to a low temperature. The fishes used in these experiments were *Gillichthys mirabilis*.

**Yamamura Yarokurô** - Chemical Study of Food–organisms for Fish. IV. Distribution of Arsenic [*Studium chemicum organismorum edulium piscium. II. Arsenici distributio*]. (In Jap.; Engl. Rés). 2 tabl., Bull. Jap. Soc. Scient. Fish., IV, 2, 85-87. Tokyo (1935). **b - 482**

In the present paper there are embodied arsenic contents of food–organisms for fish and the distribution of the element in water soluble part, ether soluble part and the residual tissues of pupae of silk worm. The estimation of arsenic was followed by I. Bang's titration method.

**An.** - The Manufacture of Carbohydrates by Plants [*De hydratis carbonii eorumque formatione in plantis*]. Science, Suppl., LXXXII, 2116, 6. New York (1935). **b - 483**

Short notice on experiments carried out by scientists from U. S. Department of Agriculture and the Bureau of Chemistry and Soils in Washington with the green Alga, *Chlorella*. The process is known as basic photosynthesis.

## Compositio chemica organismorum marinorum.

**Bähr O.** - Untersuchungen über die chemische Zusammensetzung der Rohware der deutschen Fischindustrie. 1, 2 [*De compositione chemica substantiae primae in piscatoria germanica industria*]. 13 Tab., Dtsch. Fisch.–Rundschau (Mitt. Inst. Seefisch. Wesermünde), 12, 271-273; 13, 295-297. Bremerhaven (1935). **b - 484**

1. Zusammenfassende Wiedergabe des Ergebnisses der vom Institut für Seefischerei zu Wesermünde organisierten Untersuchungen am deutschen Schleppnetzhering, mit besonderer Berücksichtigung der chemischen Analyse der Bestandteile des Heringsfleisches. Die Arbeiten des Instituts in dieser Richtung sind besonders wichtig für die Fischindustrie, die bekanntlich schwere Verluste erträgt, weil ihr Rohmaterial nicht immer auf dieselbe Weise verarbeitet werden kann. 2. Mitteilung aus dem Institut für Seefischerei Wesermünde: Der englische Importhering. Der norwegische Importhering. Heringe verschiedener Herkunft. Sprotten und Makrelen.

**Baldwin E.** - Phosphagen in the Electrical Organ of *Torpedo* [*De phosphagene in organo electrico in « Torpedo »*]. Journ. Exper. Biol. X, 212-221. London (1933). **b - 485**

**Baldwin E.** - On the Cephalopod Phosphagen [*De phosphagene in Cephalopodis*]. Journ. Exper. Biol., X, 222-229. London (1933). **b - 486**

**Bergmann W.** - Contributions to the Study of Marine Products II. The Sterols of Mollusks [*Studia maris fructuum. Sterolea Molluscorum*]. Journ. Biol. Chem., CIV, 317-328. Baltimore (1934). **b - 487**

**Campbell J.** - Non-protein Nitrogenous Constituents of Fish Muscle [*Substantiae constituentes nitrogenicae non-proteinicae in piscis musculo*]. Ann. Rep. Biol. Bd Canada, 1933, 51-52. Ottawa (1934). **b - 488**

Results of a study of the non–protein nitrogenous constituents of cod, herring, salmon, and haddock muscle; relative amount of these constituents; striking difference in the content of imidazole groups. Many interesting points brought out through fractionation of large samples of cod and herring muscle extract by the silver–baryta method.

**Campbell J.** - The Non–protein Nitrogenous Constituents of Fish and Lobster Muscle [*Substantiae constituentes nitrogenicae non–proteinicae musculorum piscis et cancri*]. 3 tabl., Journ. Biol. Bd Canada, I, 3, 179-189. Toronto (1935). **b - 489**

A chemical investigation of the non–protein nitrogenous constituents of the muscle of cod, haddock, salmon, herring, skate and lobster has been made with more particular attention to cod, herring and lobster muscle in which the partition of nitrogen was investigated by fractionation procedures.

**Carteni A. & Morelli A.** - Ricerche sulla costituzione chimica dei muscoli di alcuni animali marini. Nota I. Le proteine del tessuto muscolare di *Mugil cephalus* [*Investigationes in constitutionem chemicam musculorum animalium marinorum. De proteinis texti muscularis in « M. cephalus »*]. Quad. Nutr., I, 3, 185-191. Napoli (1934). **b - 490**

Preparazione del materiale ed esposizione dei metodi di analisi. I risultati ottenuti sono espressi in gr. di azoto delle varie frazioni riferiti: 1° al peso del campione di materiale esaminato, 2° a 100 gr. di proteina; 3° a 100 gr. di azoto proteico. Ripartizione dell'azoto nelle proteine muscolari di animali marini, secondo vari Autori.

**Carteni A. & Morelli A.** - Ricerche sulla costituzione chimica dei muscoli di alcuni animali marini. Nota II. Le sostanze azotate estrattive del tessuto muscolare di *Mugil cephalus* [*Investigationes in constitutionem chemicam musculorum animalium marinorum. De substantiis azotatis extractivis texti muscularis speciei « M. cephalus »*]. Quad. Nutr., I, 5-6, 433-449. Napoli (1934–35). **b - 491**

Si riferiscono i valori delle sostanze azotate estrattive del tessuto muscolare di *Mugil cephalus*, assieme a quelli esistenti in letteratura su altre specie di animali marini, raccolti in tabelle analitiche.

**Carteni A. & Aloj G.** - Composizione chimica di animali marini del golfo di Napoli. II. Selaci, Molluschi, Crostacei [*De compositione chemica animalium marinorum sinus Neapolitani. Selaci, Mollusca et Crustacea*]. Quad. Nutr., II, 3, 219-235. Napoli (1935). **b - 492**

Vengono riferite le analisi chimiche di alcuni selaci molluschi e crostacei del golfo di Napoli, più comunemente usati nell'alimentazione dell'uomo. I valori ottenuti vengono confrontati con quelli ricavati da analoghe ricerche sui teleostei, pubblicati in una nota precedente, in relazione sia al loro valore nutritivo sia al loro valore economico.

**Cooper L. H. N.** - The Rate of Liberation of Phosphate in Sea Water by the Breakdown of Plankton Organisms [*Ratio liberationis phosphaticae in aqua marina a decompositis organismis planctonicis*]. 1 fig., 1 table, Journ. Mar. Biol. Assoc., XX, 2, 197-200. Plymouth (1935). **b - 493**

Samples of animal and plant plankton were added to the sea–water in glass vessels and the subsequent changes in the phosphate content of the water were followed. The breakdown of the zooplankton was very rapid and more phosphate was set free than had originally been added as plankton. The balance was produced from dissolved organic phosphorous compounds in the water. The breakdown of phytoplankton showed a short time lag and only a part of the phosphorous added was set free as phosphate.

**Cooper L. H. N.** - A Note on Manganese in Marine Plankton [*De manganese quoad Plancton marinum*]. 1 table, Journ. Mar. Biol. Assoc., XX, 2, 201-202. Plymouth (1935). **b - 494**

Table showing manganese content of plankton caught at Station L4. Date of the collection, description of plankton, manganese in catch γ/m of sea water filtered and ratio Mn/P (weight/weight) are given in this table. The concentration of manganese amounted to less than three parts per million million parts of water filtered, equivalent to one–thousandth or less of the phosphorus content.

**Coulson E. J.** - The Jodine Content of Oysters [*Quod jodii continetur in Ostreis*]. 1 fig., 4 tabl., U. S. Dpt. Comm. Bur. Fish. Invest. Rep., 18, ii, 1-10. Washington D. C. (1934). **b - 495**

The iodine content of fresh oysters, shucked and handled in the usual commercial manner has been determined. The variation of iodine content with season and locality has been studied, as well as the effect of washing on the composition of oysters. The value of oysters as a source of iodine has been established and some conclusions concerned with it, drawn.

**Coulson E. J.** - The Iodine Content of Some American Fishery Products [*Quod jodii continetur in fructibus piscatoriis americanis*]. 3 tabl., U. S. Dpt. Comm. Bur. Fish., Invest. I, Rep. 25, 1-7. Washington, D. C. (1935). **b - 496**

In this note the results of a reinvestigation of the iodine content of some of the important American fishery products are given. The work has been carried out because of the importance of sea food as a natural source of iodine and because of the advance made in the recent years in methods of iodine analysis. In two tables are given data concerning respectively fishery products and fish meals.

**Denissov I. A.** - Quelques données sur la composition chimique de l'espadon [*De compositione chemica speciei « Trichiurus japonicus »*]. (En russe). 3 tabl., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.–Orient) 1/2, 97-100. Moskva-Khabarovsk (1934). **b - 497**

Quelques données sur la composition chimique de *T. japonicus* dont l'importance au point de vue alimentaire est nulle, mais dont la pêche est néanmoins intéressante étant donné que sa peau fournit la guanine qui sert à la fabrication de perles artificielles.

**Denissov I. A.** - Sur l'extraction de la guanine dans l'industrie de pêche de l'Extrême-Orient [*De guanina extraenda quoad industriam piscatoriam in regionibus ultimi Orientis*]. (En russe). 2 fig., 10 tabl., Rybn. Choz Daljn. Vost. (Econ. Pêche Extr.–Orient) 1/2, 135-150. Moskva-Khabarovsk (1934). **b - 498**

Après une introduction de caractère général, contenant un résumé du développement de l'industrie de la guanine qui fournit la pâte perlée, l'A. décrit les propriétés physiques et chimiques de cette substance et donne ensuite la caractéristique des matières premières existantes dans l'Extrême-Orient, que l'on peut utiliser pour la fabrication de la guanine; il décrit quelques uns des traitements industriels qui servent à son extraction, illustre ensuite les différentes méthodes pour la détermination du montant de la guanine dans la matière première travaillée et étudie la composition de la pâte perlée qui en est obtenue.

**Dillon T. & O'Tuama T.** - The Cellulose of Marine Algae [*De cellulosa Algarum marinarum*]. Scient. Proc. R. Dublin. Soc. N. S. XXI, 147-152. Dublin (1935). **b - 499**

**Euler (v.) H. & Hellström H.** - Ueber Asterinsäure, eine Carotinoidsäure aus Seesternen [*De acido asterinico, ut acido carotinoide, in Asteroideis*]. Hoppe-Seyler's Ztschr. Physiol. Chem., CCXXIII, 3/4, 89-97. Strassburg (1934). **b - 500**

Untersuchungen in *Crossaster paposus, Henricia sanguinolenta, Porania pullvillus, Hippasteria phrygiana* und *Solaster endica.*

**Fuijikawa Kiyoshi & Kitayama Osamu** - The Iodine Content in *Porphyra tenera* [*Quod jodii continetur in « Porphyra tenera »*]. (In Jap.; Engl. Rés.). 3 figs., 4 tabl., Bull. Jap. Soc. Scient. Fish., IV, 4, 239-241. Tokyo (1935). **b - 501**

Experiments and results concerning the influence of air exposure and period of maximum content of iodine.

**Haas P. & Russel-Wells B.** - A Note on the Phosphorus Content of Marine Algae [*Nota de phosphoro qui continetur in Algis marinis*]. Biochem. Journ., XXIX, 1915-1917. London (1935). **b - 502**

**Heilbron I. M., Parry E. G. & Phipers R. F.** - The Algae. II. The Relationship betwen certain Algal Constituents [*Algae. Correlationes aliquarum substantiarum constituentium*]. Biochem. Journ., XXIX, 1376-1381. London (1935). **b - 503**

**Heilbron I. M., Parry E. G. & Phipers R. F.** - The Algae. III. The Isolation of Lactoflavin [*Algae. Seiunctio lactoflavinae*]. Biochem. Journ., XXIX, 1382-1383. London (1935). **b - 504**

**Heilbron I. M., Phipers R.F. & Wright H. R.** - The Chemistry of the Algae. I. The Algal sterol Fucosterol. [*I. Chemia Algarum*]. Journ. Chem. Soc. 1934 (Oct.), 1572-1576. London (1934). **b - 505**

Chemical properties of *Fucus vesiculosus.*

**Ilyin M. D.** - Chemical Composition of the Char of the Novaja Zemlja [*De compositione chemica speciei « Salvelinus alpinus » in* Novaja Zemlja]. (In Russ.; Engl. Rés.). 4 tabl., Trans. Arct. Inst. XVII, 107-114. (Scient. Res. Biol. Exp. Novaja Zemlja, 1931-1934, n. 2). Leningrad (1935). **b - 506**

Account of the results of the chemical analysis of the meat taken from 4 specimens of *S. alpinus* of Novaja Zemlja and of the comparison between its composition and those of the meat of *S. namaycush* and *S. fontinalis*. The specimens have been captured in the Cross Bay (Krestovaja).

**Kiesevetter I. V.** - Méthode de détermination du contenu des algues en mannite [*Methodus determinandi mannitis in Algis retemptae*]. (En russe). 4 tabl., Rybn. Choz. Daljn. Vost., XIII, 1, 123-127. Khabarovsk (1935). **b - 507**

L'A. démontre que: 1) la méthode de détermination gravimétrique de Kylin est compliquée et pas assez exacte en ce qui concerne la teneur des algues en mannite et que 2) la méthode cupro-alcaline est mieux appropriée à l'analyse des algues et permet d'obtenir des résultats suffisamment exacts.

**Kobayashi S.** - Chemical Composition of the Body Fluid of an Ascidian, *Chelyosoma siboja* Oka [*De compositione chemica plasmatis alicuius Ascidiae*]. 5 tabl., Sc. Rep. Tôhoku Imp. Univ., 4 Ser., Biol., IX, 4, 407-413. (Contr. Mar. Biol. Stat., 119, Asamushi, Aoomori-ken.). Sendai, Jap. (1935). **b - 508**

Description of the chemical composition of the plasma of *C. siboja* living in Mutsu-Bay, Japan and its comparison with those of *Phallusia mammillata*, another Ascidian, found in the Mediterranean.

**Lagovskaja E. A.** - La graisse de l'espadon, *Trichiurus japonicus* T. et S. [*Crassus speciei « T. japonicus »*]. (En russe). 3 tabl., Rybn. Choz.

Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 100-102. Moskva-Khabarovsk (1934). **b - 509**

Quelques indications sur les résultats de l'analyse chimique de la graisse de la chair et de l'huile du foie de *T. japonicus*.

**Linderstrøm-Lang K.** - Studies on enzymatic Histochemistry. IV. The Peptidase Content of some marine Invertebrates [*De enzymatica histochemia. IV. Peptidasis in invertebratis marinis*]. C. R. Trav. Lab. Carlsberg, XIX, 13. Copenhague (1933). **b - 510**

**Naganuma Hideya** - A Study of Nitrogenous Compounds Extracted from Sardine [*Studium substantiarum nitrogeniarum quae a sardina extractae sunt*]. (In Jap.; Engl. Rés.). Bull. Jap. Soc. Scient. Fish., III, 5, 263-264. Tokyo (1935). **b - 511**

Nitrogenous compounds such as inosinic acid, xanthine hypoxanthine, histidine, lysine and creatine were isolated from the extract in crystals, and identified by analysis of the crystals and their derivatives.

**Namiki S.** - Sur le contenu en créatine, en fer et en graisse de la musculature des poissons [*De creatina, ferro et crasso quae continentur in musculis piscium*]. (En Jap.). Nagoya Journ. Medic. Sc., 7, 206-207 (?) (1934). **b - 512**

Dans la chair commune du maquereau, du bonito, de la carpe et de *Trachurus japonicus* on observe la présence de la même quantité de créatine que dans la musculature blanche du lapin, et une quantité deux fois supérieure environ de celle que l'on observe dans la musculature rouge. Le contenu en créatine est pareil dans les deux types de chair, tandis que la viande rouge contient une quantité supérieure de fer et de graisse de la viande blanche.

**Osadtchikh M.** - Sur la teneur en graisse de la chair de morue de la Mer de Barents [*Quod crassi continetur in carne speciei « Gadus morrhua » maris* Barents]. (En russe). 2 fig., Za Rybn. Ind. Sev., 6, 15-16. Leningrad (1934). **b - 513**

**Pitts R. F.** - Urinary Composition in Marine Fish [*De compositione substantiarum urinae in piscibus marinis*]. Journ. Cell. and Comp. Physiol., IV, 389. Philadelphia (1934). **b - 514**

**Schmidt-Nielsen S. & Flood A.** - Die Oele und Trane einiger Bartenwale, die Analysenkonstante der Fette einiger Tiere. II. [*De Oleis et crassis aliquarum balaenarum. Agitur etiam de numeris constantibus quoad analysim substantiarum crassarum aliquorum animalium. II*]. 6 Tab., Kgl. Norsk. Vidensk. Selsk. Forh., VI, 30, 115-118. Trondheim (1934). **b - 515**

A Wal–Oele: Oele des Südkapers (*Balaena australis*), Finnwal-Oele: *Balaenoptera physalus*, Blauwal-Oele: *B. musculus*, Seiwal–Oele: *B. borealis*. Gehalt der Walöle an Vitamin A. N– und P–Gehalt der Walöle. B. Wal–Trane. (Walleberfette).

**Schmidt-Nielsen S. & Flood A.** - Die Trane einiger Squaliden. Analysenkonstante einiger marinen Tiere. III [*De substantiis crassis aliquarum Squalidarum. Numeri constantes quoad analysim aliquorum animalium marinorum*]. 7 Tab., Kgl. Norsk. Vidensk. Selsk. Forh., VI, 41, 158-161. Trondheim (1934). **b - 516**

Chemische Analyse mit Bemerkungen für *Pristiurus catulus* Gunnerus, resp. *P. melanostomus*, *Lamma cornubica* Gmel., *Alopias vulpes*, *Selache maxima* Gunnerus, *Acanthias vulgaris* oder *Squalus acanthias* L., *Etmopterus spinax* oder *Spinax niger* und *Laemargus borealis* oder *Somniosus microcephalus*.

**Schmidt-Nielsen S. & Flood A.** - Die Trane einiger Rochen und der Chimäre. Analysenkonstante einiger marinen Tiere. IV [*De substantiis crassis aliquarum Rajarum et in « Chimaera monstrosa ». Numeri constantes quoad analysim aliquorum animalium marinorum*]. 5 Tab., Kgl. Norsk. Vidensk. Selsk. Forh., VI, 42, 162-164. Trondheim (1934). **b - 517**

Chemische Analyse mit Bemerkungen für *Raja Nidrosiensis*, *R. batis*, *R. oxyrhynchus*, *R. fullonica* und *Chimaera monstrosa*.

**Schmidt-Nielsen S. & Frog F.** - On the Composition of the Fat from a Sample of Whale Milk [*De compositione substantiarum crassarum in lacte balaenarum*]. Tabl., Kgl. Norsk. Vidensk. Selsk. Forh., VI, 33, 127-129. Trondheim (1934). **b - 518**

From the researches on Blue whales, Fin whales and Sei whales it is shown that the high iodine value of the whale milk fat is specially due to high molecular acids, i. e. to the presence of more than 30 per cent of $C_{20}$ – and $C_{22}$ – acids.

**Schmidt-Nielsen S. & Hammer Leiv** - Zur Kenntnis der Jahreswechslungen im Kohlenhydratgehalt bei *Laminaria hyperborea* [*De cognoscendis variationibus annuis in continentia hydrati carbonii in « Laminaria »*]. 2 Tab., Kgl. Norsk. Vidensk. Selsk. Forh., VI, 31, 119-122. Trondheim (1934). **b - 519**

Methodisches. Analysenbefunde. Zusammensetzung der organischen Grundsubstanz. Besprechung der Resultate.

**Secondat M.** - Sur la composition chimique de la Truite commune (*Salmo trutta* L.) au moment de la maturité sexuelle [*De chemica compositione tructae communis, maturitatis sexualis tempore*]. C. R. Congr. Soc. Sav. Sci., 232-233. Paris (1933). **b - 520**

Ayant fait l'analyse chimique des œufs et du corps desséché, l'A. a pu observer que chez les femelles la teneur en eau est plus élevée que chez les mâles et au contraire pour la graisse. Les œufs sont très riches en protéines. et beaucoup moins en sels minéraux et en substances grasses.

**Suzuki S.** - Kurze Mitteilung betreffend organische Phosphorverbindungen des Achtfüssers [*Communicatio brevior de compositis phosphoricis organicis speciei « Octopus octopodia »*]. Jap. Journ. Med. Sc., II, Biochem. II, 3, 355-357. Tokyo (1934). **b - 521**

Vf. behauptet, dass das im Cephalopodenmuskel befindliche Phosphagen nicht Kreatinphosphorsäure, sondern scheinbar eine unreine Argininphosphorsäure oder ein neues Phosphagen sei. Die betreffenden Untersuchungen sind an *Octopus octopodia*, als Versuchstier, durchgeführt worden.

**Timon-David J. & Ceresola G.** - Influence du sexe sur les lipides de quelques mollusques marins [*De sexus influentia in lipides aliquorum molluscorum marinorum*]. C. R. Acad. Sc., CCI, 853-854. Paris (1935). **b - 522**

Les recherches portées sur *Murex brandaris*, *Mytilus galloprovincialis* et *Eledone moschata* ont montré que la teneur en lipides est plus élevée et la richesse en fonctions éthyléniques des acides gras plus grande chez les femelles que chez les mâles.

**Tsujimoto, Mitsumaru & Koyanagi H.** - On the fatty Substances of Shell-fish [*De substantiis crassis in Crustaceis*]. Soc. Chem. Ind.

Jap. Suppl., XXXVII, 2, 81 B–86 B. Tokyo (1934). **b - 523**

Chemical analysis expressed in percentages of *Tapes philippinarum, Corbicula leana, Cristaria plicata, Meretrix meretrix, Haliotis gigantea* and *Turbo cornutus.*

**Vinogradov A. P.** - La composition chimique élémentaire des organismes marins [*De compositione chemica elementari organismorum marinorum*]. (En russe). Ière partie. 103 tabl., Trav. Labor. Biogéochim. Acad. Sc. U. R. S. S., III, 63-278. Léningrad-Moscou (1935). **b - 524**

Histoire de la réunion des données analytiques. Caractère du matériel analytique. Composition chimique élémentaire de la matière vivante et particulièrement des Algues marines, du plankton marin, des Bactéries marines, des Floridées marines, des *Protozoa*, des *Porifera* et des *Coelenterata*. Composition chimique de l'eau de mer.

**Woynoff K.** - Zusammensetzung der Fische *Bothus maeoticus* Pall. und *Gobius melanostomus* Pall. [*Compositio chemica in piscibus* « *B. maeoticus* » et « *G. melanostomus* »]. 2 Tab., Ztschr. Unters. d. Lebensmittel, LXIX, 2, 174-176. Berlin (1935). **b - 525**

Mitteilung aus der Biologischen Seestation in Varna am Schwarzen Meer. Fundort. Untersuchungsverfahren. Tabellen der chemischen Analyse.

**Zeller A.** - Ueber das Vorkommen von Cholin in Meeres-Algen [*De cholina in Algis marinis*]. Biochem. Ztschr., CCLXVIII, 187. Berlin (1934). **b - 526**

## Vitaminae et earum valor.

**Copping A. M.** - Origin of Vitamin D in Cod-liver Oil: Vitamin A Content of Zooplankton [*De origine Vitaminae D in oleo speciei* « *Gadus morrhua* ». *De Vitamina D in zooplancton*]. Biochem. Journ., XXVIII, 4, 1516-1520. London & Cambridge (1934). **b - 527**

**Denz F. A. & Shorland F. B.** - The Composition and Vitamin A Value of some New Zealand Fish–liver Oils [*De Vitamina A quoad compositionem et valorem in oleis hepaticis piscium ad Novam Zelandiam pertinentium*]. 2 figs., New Zealand Journ. Sc. and Technol., XV, 5, 327-331. Wellington (1934). **b - 528**

Large yields of oil from *Merluccius gayi* and *Genypterus blacodes.*

**Drummond J. C. & Macwalter R. J.** - Provitamin A in Food of Whales [*Pro-vitamina A in alimento Balaenarum*]. Journ. Exp. Biol., XII, 105-107. London (1935). **b - 529**

**Joyet-Lavergne Ph.** - Sur la recherche de la vitamine A dans les globules rouges du sang des Vertébrés [*De inquirenda vitamina A in globulis rubris sanguineis Vertebratorum*]. C. R. Acad. Sc., CCI, 24, 1219-1221. Paris (1935). **b - 530**

L'A. a abordé le problème de la recherche de la vitamine A dans les globules rouges du sang de la raie; dans ses conclusions il met en évidence la généralisation de la proposition qu'il a formulée, à voire que « la vitamine A est un constituant essentiel du chondriome ».

**Macpherson N. L. & Wilson A. M.** - Vitamin A in Liver Oils (Of Fish) [*De vitamina A in oleo speciei* « *Gadus morrhua* »]. 5 tabl., Rep. Newfoundl. Fish. Research. Labor., II, 3, 46-50. Newfoundland (1935). **b - 531**

Cod liver oil: the effect of age on potency and on values in international units. Other fish liver oils (salmon and halibut).

**Prozorovskaja L. L. & Chivrina A. N.** - - Contenu en Vitamines A et C des algues brunes [*De vitaminis A et C in algis nigris*]. 1 diagr., 2 tabl., Problema Vitam., Sborn. Rab. Vitam. Lab., 65-69. Leningrad (1934). **b - 532**

**Rygh O.** - Non-identity of Vitamin $D_2$ (Irradiated Ergosterol, Calciferol) and the Natural Vitamin D from Cod Liver Oil [*Quaestio de non-identitate vitaminae $D_2$ et vitaminae D naturalis in oleo speciei* « *Gadus morrhua* »]. Nature, CXXXVI 3436, 396-397. London (1935). **b - 533**

The data reported here of the results obtained at the Norwegian State Vitamin Institute are not sufficient to determine whether vitamin *D* from cod liver oil and from tunny liver oil are different. Only a difference from irradiated ergosterol has been proved.

**Schmidt-Nielsen S., Flood A. & Stene J.** - On the Size of the Liver of some Gristly Fishes and of some Bone–Fishes and their Content of Fat and Vitamin A [*De hepate aliquorum piscium cartilagineorum et teleosteorum quoad magnitudinem. Agitur etiam de substantiis crassis deque vitamina A*]. Tabl., Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 15, 47-50; 20, 70-73. Trondheim (1935). **b - 534**

Statistic tables of 14 species of Gristly Fishes and of 27 species of Bone–Fishes.

**Schmidt-Nielsen S., Flood A. & Stene J.** - Ueber Grösse und Vitamingehalt der Leber verschiedener Tiere [*De vitaminis quoad magnitudinem et continentiam in hepate aliquorum animalium*]. Tab., Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 23, 81-84. Trondheim (1935). **b - 535**

Unter den hier untersuchten Tieren sind auch *Balaenoptera musculus, B. borealis* und *Phocaena phocaena* zu bemerken.

**Schmidt-Nielsen S., Flood A., Stene J. & Sørensen N. A.** - Ueber den Vorrat des *Macrurus rupestris* an Vitamin A. [*De vitamina A in specie* « *Macrurus rupestris* »]. 2 Abb., Tab., Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 49, 174-177. Trondheim (1935). **b - 536**

Die Resultate der untersuchten 50 *Macrurus rupestris* sind in einer Tabelle zusammengestellt. Der Tintometerwert des Tranes ist auffallend hoch.

**Schmidt-Nielsen S. & S.** - A Note on the Vitamin D Content of Fish-meals [*De vitamina D in farinis ichthycis*]. Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 46, 164-166. Trondheim (1935). **b - 537**

Account of five experiments undertaken with meagre fish–meals. It has been confirmed that the codfish–meal, i. e. the bone–meal from cod, is rather poor in Vitamin *D.*

# OECOLOGIA

## Hydrobiologia - Adaptatio loco ambienti.

**Berg L. S.** - Ueber die amphiboreale (diskontinuierliche) Verbreitung der Meeresfauna in der nördlichen Hemisphäre [*De distributione amphiboreali faunae marinae in hemisphaerio septentrionali*]. Zoogeographica, II, 393-409. Jena (1933 & 1935). **b - 538**

Unter Beziehung auf seine frühere Arbeit über die bipolare Verbreitung der Organismen und die Eiszeit (1933) behandelt Vf. hier einen anderen Typus diskontinuierlicher Verbreitung der als amphiborealen bezeichneten Organismen, welche im Osten und Westen der nördlichen Halbkugel vorhanden sind, in der Mitte aber, in den hocharktischen Eismeeren fehlen. Verbreitung mehrerer amphiborealen Meerestiere und damit zusammenhängende Ursachen: die pliozäne Verbindung, die postglaziale Verbindung.

**Berg L. S.** - Rezente Klimaschwankungen und ihr Einfluss auf die geographische Verbreitung der Seefische [*De mutationibus climaticis proximis temporibus earumque influentia in distributionem geographicam piscium marinorum*]. Tab., Zoogeographica, III, 1, 1-15. Jena (1935). **b - 539**

Infolge einer während der letzten 50 Jahre stattgefundenen Zunahme der Luft-und Wassertemperatur ist eine merkbare Verschiebung gegen Norden der Lebenszonen verschiedener Fische und anderer Wassertiere beobachtet worden. Beispiele: *Scomber*, *Clupea*, *Gadus*, *Cardium*, *Eupagurus* u. a. Hydrologische und meteorologische Angaben.

**Breder C. M. Jr.** - Ecology of an oceanic Fresh-water Lake, Andros Island, Bahamas, with special Reference to its Fishes [*De oecologia lacus cuiusdam oceanici aqua prediti dulci in insula* Andras (*Bahamas*). *Agitur particulatim de eius piscibus*]. 10 figs., Zoologica, XVIII, 3, 57-88. New York (1934). **b - 540**

Andros Island is an uplifted coral reef formation without any connection with the mainland or other formations. Several marine Fishes that normally do not enter fresh water survive here probably on account of the large amounts of dissolved Ca in the fresh water lake.

**Brunelli G.** - La pauvreté de la vie dans la Mer Méditerranée, le stock biologique et l'étude des nitrates et des phosphates [*De vitae egestate in Mediterraneo, de* stock *biologico deque studio substantiarum nitratarum et phosphaticarum*]. 1 tabl., Comm. Int. Expl. Scient. Mediterr., Rapp. Assem. Plén. Bucarest, 6 pp. Paris (1935). **b - 541**

L'A. donne un résumé de nos connaissances et des hypothèses existantes pour expliquer la rareté des nitrates et des phosphates dans la Méditerranée et la pauvreté de la vie dans cette mer, en comparaison avec les autres mers du globe; il insiste sur la nécessité d'unifier les méthodes et les systèmes de recherche dans le but de pouvoir obtenir un résultat satisfaisant.

**Colman J. S.** - The Zonation of Intertidal Organisms [*De organismis interaestuosis quoad distributionem per zonas*]. Woods Hole Oceanogr. Instit. Rep. 1934, 20-21. Woods Hole, Mass (1935). **b - 542**

Brief account of a study made on Church Reef, near Plymouth, England, the object of which was to determine how far the intertidal community is a self-contained organism, and how far it is interwoven with the life of the sea around it.

**Dogiel V. & Petruschevsky G.** - Die Wirkung des Aufenthaltsorts auf die Parasitenfauna des Lachses während seiner verschiedenen Lebensperioden [*De habitat salmonis quoad eius effectum in faunam parasiticam, diversis cyclis vitalibus salmonis perdurantibus*]. Arch. Hydrobiol., XXVI, 4, 659-673. Stuttgart (1934). **b - 543**

Die auf jungen und geschlechtsreifen Lachsen aus dem Weissen Meer und den umgebenden Flüssen gemachten Beobachtungen zeigen, dass die Parasiten mariner Herkunft, besonders die Ectoparasiten, sich während des Aufenthaltes der geschlechtsreifen Lachse im Süsswasser vermindern, während Entoparasiten dagegen gar keine Veränderungzeigen. Die Vf. Vf. sind der Ansicht, dass *Eubothrium crassum* mariner Herkunft sei.

**Edmondson C. H.** - Reef and Shore Fauna of Hawaii [*De fauna in oris maritimis et in scopulis insularum* Hawaii]. 163 figs., Bernice P. Bishop Mus. Spec. Publ. 22, 1-295. Honolulu (1933). **b - 544**

Semipopular account of marine *Invertebrata, Protozoa, Porifera, Coelenterata, Platyhelminthes, Nemertini, Bryozoa, Brachiopoda, Echinodermata, Annelida, Mollusca*, marine *Arthropoda* and others found about the Hawaiian archipelago. Glossary, bibliography, index.

**Ekman S.** - Atlanten och Stilla Oceanen. En djurgeografisk studie [*De Atlantico atque Pacifico. Studium geographicum et faunisticum*]. Ymer 77-95. Stockholm (1934). **b - 545**

**Ekman S.** - Indo-Westpazifik und Atlanto-Ostpazifik, eine tiergeographische Studie [*Oceanus Pacificus occidentalis Indianus et Oceanus Atlantico-Pacificus orientalis. Studium geographicum-faunisticum*]. 11 Abb., Zoogeographica, II, 320-374. Jena (1933 & 35). **b - 546**

In der vorliegenden Arbeit wird nur die tropische Litoralfauna berücksichtigt. Der indowestpazifische Faunenreichtum. Ist der Atlantische Ozean ein Nebenmeer? Der tropische Westatlantik (Westindien usw.). Die ehemalige atlanto-pazifische Verbindung über Zentralamerika. Ist die westamerikanische Küste die Vermittlerin einer indopazifischen Fauna nach dem Atlantischen Ozean gewesen? Die ostpazifische Sperre. Die Tethys und ihre Fauna. Der tertiäre Klimawechsel. Schlussbemerkungen über die grossen tiergeographischen Ereignisse der mittleren Tertiärzeit.

**Ekman S.** - Tiergeographie des Meeres [*Maris geographia faunistica*]. 244 Abb., 542 S., Akad. Verlagsg. m. b. H. Leipzig (1935). **b - 547**

Vorwort und einleitende Bemerkungen: Systematik der Tiergeographie. Die tropische Litoralfauna: I. Einleitende Uebersicht. II. Die indo-westpazifische Fauna. III. Die Fauna des tropischen America. IV. Das tropische

Westafrika. Zusammenfassende Uebersicht über die tropische Litoralfauna. Die mediterran-atlantische und die sarmatische Fauna. Die atlantische boreale Fauna. Die nordpazifische gemässigte Fauna. Die arktische Fauna. Die Südhalbkugel südlich der Tropen: I. Terminologie. II. Die Faunen der kalten Meere. Meridiane Verbreitung und Bipolarität. Die benthale Tiefseefauna: Lebensbedingungen und allgemeine Zusammensetzung. Regionale Verbreitung und Herkunft der benthalen Tiefseefauna. Die obere pelagische Fauna: I Allgemeines, Kosmopoliten, Warmwasserplankton. II Kaltwasserplankton, neritische Fauna. Die untere pelagische oder bathypelagische Fauna.

**Fage L.** - L'Anchois de la Mer du Nord et l'assèchement du Zuiderzée [« *Engraulis encrasicholus* » *Maris Nordici atque exsiccatio in* Zuiderzee]. Bull. Inst. Océanogr., 668, 1-7. Monaco (1935). **b - 548**

Importance des bancs d'anchois pénétrant en migration de ponte dans le Zuiderzée, qui était non seulement le lieu de rendez-vous des adultes au moment de la ponte, mais une nursery dont les caractéristiques exceptionnelles pour la Mer du Nord étaient éminemment favorables à la croissance des larves. Repercussion des travaux d'assèchement entrepris dans cette région, sur le comportement de l'anchois: sans doute il est en ce moment désorienté et se heurte au barrage qui lui interdit ses frayères de choix; il en résulte une débandade des reproducteurs dont on suit les traces jusque dans la Baltique.

**Gorbunov G.** - Biological Indicators and Their Importance in the Study of the Arctic [*Indices biologici eorumque momentum pro Artide studenda*]. (In Russ,; Engl. Rés.). Arctica, II, 113-125. Leningrad (1934). **b - 549**

By the term « biological indicator » the A. designates definite organisms, – or complexes of organisms, – which characterize any hydrobiological element. However, this paper is concerned only with complexes of organisms, which are considered as hydrobiological (in particular marine) indicators of the hydrological regimen, and, in the case of individual organisms, with hydrological elements. In this latter case the A. proposes the terms: hydrobiological thermo-indicator, hydrobiological halino-indicator, etc. He discusses two distinctly different groups of indicators, namely: organisms of the plankton and those of the benthos, emphasizes their importance in the exploration of high-arctic districts and mentions also the conditions necessary for the single organisms to be used as biological indicators.

**Hagmeier A.** - Oekologische Untersuchungen der Biologischen Anstalt. *a*) Bodenfauna [*Investigationes biologicae a Statione biologica peractae. a*) *Fauna fundi marini*]. Biologe, III, 173-174. München (1934). **b - 550**

**Herpin R.** - Le peuplement d'une place vide dans la nature (la nouvelle plage de Cherbourg) [*Populatio regionis* Cherbourg *novae orae maritimae vacuae natura*]. Ann. Sc. Natur. 10e sér., Zool. XVIII, 145-170. Paris (1935). **b - 551**

**Hewatt W. G.** - Ecological Succession in the *Mytilus californianus* Habitat as observed in Monterey Bay, California [*De successionibus oecologicis quoad habitat speciei* « *Mytilus californianus* » *observatis in* Monterey Bay, California]. 2 figs., Ecology, XVI, 2, 244-251. Brooklyn (1935). **b - 552**

The repopulations of a denuded area (sq. yard) in the *Mytilus* beds show an ecological succession of organisms; a full reestablishment of the climactic conditions was not reached after 2 ½ years.

**Hocquette H.** - Influence de la culture loin du bord de la mer sur l'anatomie du limbe d'*Elymus arenarius* et d'*Ammophila arenaria* [*De culturae influentia, longe a litoribus maritimis, in anatomiam specierum* « *E. arenarius* » *et* « *A. arenaria* »]. C. R. Soc. biol., CXVI, 776-1061. Paris (1934). **b - 553**

La première végétation présente réduction du tissu de résistence ou de soutien en *Elymus arenarius*; presque nulle influence en *Ammophila*.

**Ino Takasi** - Shell Variations of *Cellana toreuma* (Reeve) in Relation to the Environments [*De concharum variatione speciei* « *C. toreuma* » *pro ambiente*]. (Jap. Text.; Engl. Rés.). 3 fig., 4 tabl., Bull. Jap. Soc. Scient. Fish., IV, 1, 31-36. Tokyo (1935). **b - 554**

The variations in relation to the level of the habitat and the roughness of the coastal waves to which this species is exposed have been studied by means of an equation.

**Killian Ch.** - Etudes écologiques sur les fluctuations de la pression osmotique chez des Psammophytes et quelques halophytes algériens [*De oecologia quoad fluctuationem pressionis osmoticae in Psammophytis et halophytis quibusdam Algarinis*]. 13 fig., Ann. Physiol. et Physicochim. Biol., XI, 1, 70-124. Paris (1935). **b - 555**

Période de pression minimum et maximum. Relation entre les teneurs en eau et en sel chez ces plantes.

**Kinoshita T. & Shibata K.** - Relation between the Harvest of *Undaria pinnatifida* (Harv.) Sur. and Sea Temperature in Suttu Region, Hokkaido [*De correlatione inter collectionem speciei* « *U. pinnatifida* » *et maris temperaturam in regione* Suttu, Hokkaido]. (In Jap.; Engl. Rés.). 2 tabl., Bull. Jap. Soc. Scient. Fish., III, 4, 191-192. Tokyo (1934). **b - 556**

Distribution of this alga, which has two different forms, i. e.: f. *distans* and f. *narutensis*. Correlation between sea temperature and the crop of this species on the western coasts of Hokkaido. The period of discharge of the zoospores and of growth of the young plants.

**Krogh A.** - Conditions of Life in the Ocean [*De vita in Oceano*]. Ecol. Monogr., IV, 3, 421-429. Brooklyn (1934). **b - 557**

Food resources, conditions of life, and ecological factors.

**Krogh A.** - Conditions of Life at great Depths in the Ocean [*De vita in maximis Oceani profunditatibus*]. Ecol. Monogr., IV, 3, 430-439. Brooklyn (1934). **b - 558**

The temperature of the bottom and its influence on metabolism. Correlation between the density of the deep water and bottom fauna and the development of phytoplankton at the surface. Possibilities of food for the bottom fauna. Chemical determination based on researches in 5400 m. depth. On Pütter's view as to the utilization of dissolved material.

**Krokhin E. M.** - Les sources de frai au Kamtchatka. [*Loca reproductionis in* Kamtchatka]. (En russe). 4 fig., Izv. Ges. Ghéogr. Obstsch. (Bull. Soc. Géogr.), LXVII, 1, 100-103. Moskva-Léningrad (1935). **b - 559**

Description de deux types de sources que l'on observe dans les vallées des grands fleuves du Kamtchatka et qui servent de frayères aux salmonidés de la région, appartenant au genre *Oncorhynchus*.

**Kunkel B. W.** - The Selective Action of Certain Adverse Environmental Conditions of the Hermit Crab (*Clibanarius tricolor* Gibbes) [*Agitur de actione selectiva aliquarum condicionum quae sunt obnoxiae speciei « C. tricolor »*]. Pap. Tortugas Lab., XXVIII, 215-244. Washington (1934). **b - 560**

**Lucke J. B.** - Bottom Conditions in a tidal Lagoon [*De fundi condicionibus in lacuna quadam aestuosa*]. Map. Journ. Paleontol. IX, 1, 101-107. Oklahoma (1935). **b - 561**

Description of the arcuate shoal in Barnegat Bay, N. Jersey, its marine fauna, fossils (*Foraminifera*) and geology of the bottom. Comparison between recent and fossil faunas shows a rapid destruction of some parts of the fauna after burial. Discussion on this phenomenon of destruction and the origin of the bottom muds of the delta.

**Manfredi P.** - Cause di spopolamento delle acque e rimedi [*Aquarum depopulatio. Causae et remedia*]. Boll. Pesca, Piscicolt. Idrobiol., XI, 4, 530-535. Roma (1935). **b - 562**

L'A. esamina i fattori più comuni d'inquinamento dell'acqua, dannosi alla vita dei pesci, distinguendo le sostanze nocive in solubili ed insolubili, ad azione rispettivamente meccanica e chimica. Poichè tali inquinamenti si verificano per lo più in vicinanza di centri abitati o di stabilimenti industriali, suggerisce alcuni accorgimenti da adottarsi, specialmente da parte degli industriali, per la bonifica delle acque di rifiuto.

**Moore H. B.** - On « Ledging » in Shells at Port Erin. The Relation of Shell Growth to Environment in *Patella vulgata* [*Agitur de prominentiis in conchis Molluscorum ad* Port Erin *pertinentium. Correlatio inter conchae accretionem et ambientem speciei « P. vulgata »*]. Proc. Malacol. Soc., XXI, Part 3, 213-222. London (1934). **b - 563**

**Moore H. B.** - A Comparison of the Biology of *Echinus esculentus* in Different Habitats. Part II [*De comparatione biologica inter diversa habitat speciei « E. esculentus »*]. 10 figs., 7 tabl., Journ. Mar. Biol. Assoc., XX, 1, 109-128. Plymouth (1935). **b - 564**

The inshore races of *Echinus esculentus* from the Isle of Man are thicker shelled and flatter, and on all grounds the urchins become taller with increasing age. There is a correlation between amount of growth in a given year, and the sea temperature. On the Breakwater the males and females grow at slightly different times of year. Concentric pigmented rings are demonstrated in the test, and are shown to be annual. They are used for estimating the growth rates on the different grounds. The duration of life is four to eight years (from A.).

**Moore H. B.** - The Biology of *Balanus balanoides*. IV. Relation to Environmental Factors [*De biologia speciei « Balanus balanoides ». Relationes de factoribus externis*]. 11 figs., 5 tabl., Journ. Mar. Biol. Assoc., XX, 2, 279-307. Plymouth (1935). **b - 565**

Relation of vertical distribution and of density of population to wave-exposure. Modifying influence of wave-exposure on the effect of level on growth rate, body weight, density of population, etc. Effect of level on maturation of the gonads, and the modifying influence of wave-exposure on this. Effect of temperature, salinity, oxygen, concentration, pH, and sediment. Effect of crowding. Settlement of larvae. Effect of current. Relation to other dominant organisms. Estimate of total barnacle population of the shore and its annual food output.

**Nicol Edith A. T.** - The Ecology of a Salt-marsh [*De Oecologia stagni cuiusdam salsi*]. 17 figs., 12 tabl., Journ. Mar. Biol. Assoc., XX, 2, 203-261. Plymouth (1935). **b - 566**

The salt-marsh under investigation is situated at Aberlady Bay on the south shore of the Firth of Forth, fifteen miles east of Edinburgh. The A. studied the fauna of the surface of the marsh, the fauna of the pools, the fauna of the estuary and the number of the animals in the marsh. Detailed observations were made on the conditions under which the animals in the pools are living: the salinity, the oxygen content, the alkali reserve, the hydrogen ion concentration, the temperature. The composition of the fauna and the relationship of the conditions to the life of the animals is discussed in connection with recent work on the physiology of some of the inhabitants of brackish water.

**Otto J. P. & Wielinga D. T.** - Hydrobiologische Notizen vom Brackwassergebiet der Provinz Friesland, speziell in der Nähe von Harlingen [*Notitiae hydrobiologicae quoad regionem aquae salmacidae in Provincia* Friesland, *precipue apud* Harlingen]. 2 Abb., Tijdschr. Nederl. Dierk. Vereen., III, 2/3, 49-74. Leyden (1933). **b - 567**

Bericht über die ökologischen Verhältnisse der Brackwasserfauna verschiedener Kanäle in Holland. Verzeichnis der Phyto-, Zooplankton, Nekton und sessilen Formen.

**Pelseneer P.** - Essai d'éthologie zoologique d'après l'étude des mollusques [*Exemplum ethologiae zoologicae ex Molluscorum studiis*]. Acad. R. Belgique, Cl. Sc., Publ. Fond. Agatho de Potter, I, 662 pp. Bruxelles (1935). **b - 568**

**Redeke H. C.** - Ueber den jetzigen Stand unserer Kenntnisse der Flora und Fauna des Brackwassers [*Quae adhuc novimus de flora et fauna aquae salmacidae*]. Verh. Int. Ver. Limnol., VI. Stuttgart (1933). **b - 569**

Diese Arbeit bezieht sich hauptsächlich auf die Biologie der nordwesteuropäischen Brackwasser-Biotopen. Ein Schema für die allgemeine Einteilung des Brackwassers ist vorgeschlagen.

**Redeke H. C.** - Essay Review. Some Recent Publications on the Fauna of Brackish Waters in the Netherlands [*Conspectus recentium publicationum quae faunam considerant in aqua salmacida Hollandiae*]. Journ. Cons. Expl. Mer, X, 3, 319-323. Copenhague (1935). **b - 570**

List of 8 works with reviews.

**Seurat L. G.** - Formations littorales et estuaires de la Syrte Mineure (Golfe de Gabès) [*Agitur de litorum formatione atque aestuariorum Syrtidos* (*Sinus* Gabès)]. 7 fig., 1 carte, Bull. Stat. Océanogr. Salammbô, 32, 1-65. Tunis (1934). **b - 571**

1) Formations littorales: Plages. Mode rocheux. Falaises et jetées. Pilotis, bois immergés. Pêche des Poulpes. Prairies de Caulerpes. 2) Mode saumâtre, estuaires et marais. 3) Formations littorales: Littoral continental. Bahiret-el-Bou-Grara. Bahiret-el-Biban. Ile Djerba. Iles Kerkennah. 4) Index des espèces citées.

**Seurat L. G.** - Etage intercotidal des côtes algériennes. Falaises battues [*Planum intercotidale litorum algariensium*]. 9 fig., Stat. Aquicult. et pêche Castiglione (1933), 2, 11-47. Alger (1935). **b - 572**

Comparaison du peuplement des falaises du golfe d'Arzeu (Oranie) et de la côte Algéroise. Morphologie géologique, sources, différente distribution de la faune animale.

L'Algue *Cystoseira sedoides* est caractéristique de la côte algérienne à côté des espèces atlantiques *Rivularia bullata, Cladophoropsis modonensis, Codium adherens* et une ceinture de *Rissoella verruculosa.* Parmi les Mollusques: *Pollicipes cornucopia, Teredo norvegica, Lithodomus caudigerus* et *Gadinia Garnoti.*

**Stephen A. C.** - Notes on the Intertidal Fauna of North Uist [*Agitur de fauna interaestuosa in regione* Uist *sept.*]. Scott. Natural. 215, 137-142. Edinburgh (1935). **b - 573**

**Takahasi S.** - An Ecological Study of the Littoral Animals near the Mouth of the Tamsui River [*Studium oecologicum animalium litoreorum ad accessum fluminis* Tamsui]. (In Jap.). 1 fig., 2 pl., Trans. Natur. Hist. Soc. Formosa, XXIV, 130, 1-14. Taihoku (1934). **b - 574**

This study concerns in particular the *Crustacea.*

**Ushakov P. V.** - On the Fauna of the Brackish Waters of the Amur Delta and of the Sakhalin Bay of the Okhotsk Sea [*De fauna aquarum salmacidarum ad deltam fluminis* Amur *et sinum* Sakhalin *in mari* Okhotsk]. (In Russ.). Bull. Pacif. Comm. Acad. Sc., U.R.S.S., 3, 39-40. Leningrad (1934). **b - 575**

Report sent to the Fifth Pacific Science Congress. Brief summary of the results of observations on the diurnal oscillations of t° and S % in the estuary of the Amur in connection with the tides, followed by an account of the particular fauna of the region, whose benthonic organisms belong without exception to eurobiontic groups, accustomed to rapid variations of their habitat.

**Vaney C. & Pelosse J.** - L'adaptation de certains Blennidés à l'eau douce et aux eaux saumâtres [*De quibusdam Blenniidis quoad earum adaptationem in aquis dulcibus et in salmacidis*]. Assoc. Franç. Avanc. Sc., C. R. 57e Sess., 327-328. Chambéry (1933). **b - 576**

L'étude concerne les espèces suivantes: *Blennius pavo, B. pholis, B. tentacularis, B. gattorugine, B. fluviatilis* et *Clinus argentatus.*

**Vatova A.** - L'anormale regime fisico-chimico dell'alto Adriatico nel 1929 e le sue ripercussioni sulla fauna [*De abnormi regimine physico-chemico alti Hadriatici A. 1929 eiusque effectibus in faunam*]. 3 carte, Thalassia, I, 8, 1-49. Venezia (1934). **b - 577**

Misure idrografiche eseguite a Bagnole (Rovigno) nel 1929 e dati raccolti nell'Alto Adriatico durante il mese di marzo. Effetti delle temperature anormali sulle specie ittiche, costiere e di fondo.

**Stiasny G.** - Das Bipolaritätsproblem [*Agitur de problemate bipolari*]. Arch. Néerl. Zool., I, 1/2, 35-53. Leiden (1934). **b - 578**

Mit Bipolarität versteht Vf. hier Uebereinstimmung, nicht Identität, zwischen der arktischen und der antarktischen Fauna. Verschiedene Theorien in Bezug auf Relikten oder Migrationen sind hier erörtert um diese Uebereinstimmung zu beleuchten und Vergleiche gemacht zwischen den geographischen, geologischen, hydrographischen, klimatologischen, meteorologischen ökologischen und biologischen Verhältnissen der beiden Zonen.

**Wilson Branch C.** - A New and Important Copepod Habitat [*Novum quiddam habitat magnique momenti pro Copepodis*]. 8 figs., Smithson. Miscell. Collect., XCIV, 7, 1-13. Washington (1935). **b - 579**

The Copepods described here do not only live in the sand and mud while it is covered by the tide, but remain there after the tide has ebbed forming thus a fourth group fully as well defined as either of the three already accepted, (free-swimmers, commensals and parasites). Structure of the habitat: different sorts of sand; structure of these Copepodes in comparison with the other groups.

**Zenkewitsch L.** - Contribution à l'étude de la zoogéographie du Bassin polaire boréal et de ses rapports avec le passé géologique de cette région [*Contributio in zoogeographiam studendam bacini polaris borealis. Studium extenditur ad historiam geologicam eiusdem regionis*]. (En russe; Rès. all.). 3 tabl., Zool. Zhurn. Moskva, XII, 4, 17-34. Moskva (1933). **b - 580**

Considérations sur la biologie des Gadidés et des Salmonidés, dont quelques particularités se rapprochent de celles de la faune du bassin euxino-caspien. Par l'observation de plusieurs facteurs paléogéographiques, géologiques et océanographiques il resulte que l'alternation des régimes, cause première des spécialisations des faunes, est due à l'isolement du Bassin polaire Boréal.

**Zernov S. A.** - Hydrobiologie générale [*Hydrobiologia generalis*]. (En russe). 215 fig., diagr. & cartes, 1 pl. h. t., 503 pp., Edit. Biol. & Médic. de l'Etat. Moscou-Léningrad (1934). **b - 581**

Dans ce travail l'A. examine surtout les corrélations existantes entre les organismes aquatiques (surtout animaux et protistes) et le milieu environnant. L'ouvrage se compose des chapitres suivants: Origines, problèmes et méthodes des travaux hydrobiologiques. Traits fondamentaux de la distribution des organismes aquatiques et leurs rapports avec le milieu environnant. Quantité de l'eau dans le milieu environnant et à l'intérieur des organismes. Eau et fond de bassin comme sustentation des organismes aquatiques nageants et benthiques. Corrélation entre les organismes aquatiques et les sels et les substances organiques en solution dans l'eau. Corrélations entre les organismes aquatiques, les gaz dissous dans l'eau, la valeur du pH et la température de l'eau. Rapport entre les organismes aquatiques et la lumière. Corrélations alimentaires des organismes aquatiques entre eux et entre ces organismes et l'habitat. Etude générale du rendement des bassins aquatiques.

**An.** - History and Habits of Shellfish [*Historia et consuetudines Molluscorum et Crustaceorum*]. Fish. News 8. Aberdeen (1935). **b - 582**

**An.** - Fauna of Indian Salt Lakes [*De fauna in lacubus salsis Indianis*]. Nature, CXXXV, 3424, 1008. London (1935). **b - 583**

A certain tendency towards migration into brackish- and on into fresh - water has been observed in the salt lakes of Calcutta, especially with regard to *Pseudodiaptomus,* due to changes (silting) in the rivers and canals and following extension of the delta in the Bay of Bengal. (See also Rec. Ind. Mus., XXXVI, pt. I, 1934).

## Geographica distributio animalium.

**Adam W. & Leloup E.** - Sur la présence du Gastéropode *Crepidula fornicata* (Linné, 1758) sur la côte belge [*De «Crepidula fornicata» in litoribus Belgicis*]. Bull. Mus. R. Hist. Natur. Belgique, X, 45, 1-6. Bruxelles (1934). **b - 584**

Distribution de la Crépidule sur les côtes européennes: Angleterre, Pays-Bas, France, Belgique. Mode de distribution. Possibilité d'introduction dans une nouvelle région. L'acclimatation de la *Crepidula fornicata* à la côte belge ?

**Bàcesco Mihai** - *Metamysis Strauchi* (Czern.), Sars, *Katamysis Warpachowskyi* Sars et *Paramysis Helleri* (Sars), mysidacés nouveaux pour la faune de la Roumanie [*Mysidacea nova in fauna Rumena*]. 4 fig., Ann. Scient. Univ. Jassy, XXI, 468-485. Jassy (1935). **b - 585**

Après des considérations sur la morphologie et la systématique des espèces sus-mentionnées l'A. fait quelques observations au sujet de l'origine des Mysidacés d'eau douce de la Roumanie et tire la conclusion qu'on peut considérer le cours inférieur du Danube comme étant le domaine type d'une faune relicte, faune qu'il faut rapporter à l'époque de la Mer Sarmatique, sinon à une époque plus proche, celle des transgressions pliocéniques.

**Bell H. P. & Mac Farlane C.** - The Marine *Algae* of the maritime Provinces of Canada. I. List of Species with their Distribution and Prevalence. II. A Study of their Ecology [*De Algis marinis in provinciis maritimis Canadensibus. I. Elenchus specierum cum earum distributione atque praevalentia. II. Earum oecologiae studium*]. 10 maps., Canad. Journ. Res., IX, 3, 265-279; 280-293. Ottawa (1934). **b - 586**

In the list are included 30 *Chlorophyceae*, 41 *Phaeophyceae* and 49 *Rhodophyceae*. In addition to critical notes regarding certain forms, the striking differences in the marine flora from region to region are indicated by diagrams and distribution maps for a number of species. Three different geographical and ecological regions are distinguished.

**Birstein J. A.** - Materialien zur geographischen Verbreitung der Wassertiere der U. S. S. R. 4. Zur Frage über die Herkunft der marinen Crustazeen in den Flüssen des Ponto-Kaspischen Beckens [*Res collectae quoad propagationem geographicam animalium aquaticorum ad U. R. S. S. pertinentium. 4. Quaestio de origine Crustaceorum marinorum in fluminibus ponto-caspicis*]. (In Russ.; Dtsch. Rés.). 1 Karte, Zool. Zhurn., XIV, 4, 749-761. Moskva (1935). **b - 587**

Vf. schlägt zwei Hypothesen zur Erklärung der Herkunft der marinen Krebse in den Flüssen des Pontokaspischen Beckens vor. Er schliesst aus der Gegenüberstellung beider Hypothesen einige Folgerungen, welche ihn zwingen, die Hypothese der Relikten-Herkunft der marinen *Malacostraca* in diesen Flüssen abzulehnen und die aktive Wanderung derselben aus dem Meere in die Flüsse anzuerkennen. Er bespricht die geologische Geschichte des Ponto-Kaspischen Beckens, welcher ein ganz seltenes Beispiel einer Mischfauna aus marinen und Süsswasser-Elementen darstellt.

**Böhm A.** - Zur Verbreitung einiger Dinoflagellaten im Südatlantik [*Dinoflagellata. Quaestio de eorum distributione per Atlanticum merid.*]. 11 Abb., Bot. Arch., XXXV, 4, 397-407. Leipzig (1933). **b - 588**

Bericht von der Meteor- Expedition 1925-27 über 4 neue Arten: *Prorocentrum sigmoides*, *Amphisolenia elegans*, *Centrodinium pulchrum* und *C. eminens* und 18 für diese Gegend neu gefundenen Arten.

**Bourret R.** - Les Serpents marins de l'Indochine Française [*De serpentibus marinis in Indosinica regione Gallica*]. 20 fig., 10 pl., Inst. Océanogr. Indoch., Stat. Marit. Cauda, Note 25, 1-69. Hanoi (1934). **b - 589**

Caractères génériques et spécifiques des *Hydrophiidae*. Biologie des Serpents de mer. Description des espèces indochinoises appartenant à la famille des *Hydrophiidae*.

**Delpino I.** - La diffusione in Europa dell'*Eriocheir sinensis* M. Edw. [« *E. Sinensis* ». *Quaestio de eius diffusione per Europam*]. 3 fig., Rass. Faun., II, 1, 68-72. Roma (1935). **b - 590**

Breve rivista dei lavori riguardanti la strana migrazione di questo crostaceo, diffusissimo in Cina, e da qualche anno diffuso anche nel Mar Baltico e nel Mare del Nord.

**Fage L.** - Sur la localisation dans les eaux moyennes du Pacifique d'un Mysidacé pélagique peu connu, *Ceratolepis hamata* G. O. Sars [*De Mysidaceo pelagico haud noto « C. hamata », in mediis aquis Oceani Pacifici reperto*]. 1 fig., C. R. Acad. Sc., CC, 1774-1776. Paris (1935). **b - 591**

Le premier exemplaire a été trouvé par l'expédition Challenger 1873-1876 et décrit par Sars sous le nom de *Ceratolepis hamata* en 1885. Grâce aux autres 200 exemplaires récoltés au cours de la dernière croisière du Dana en 1928 l'A. a pu en compléter la description. Pour ses caractères ce Mysidacé doit être attribué au subordre des *Lophogastridea*.

**Gudger E. W.** - The geographical Distribution of the Whale-Shark [*Quaestio de distributione geographica speciei « Rhineodon typus »*] Proc. Zool. Soc. 1934, Part. 4, 863-893. London (1935). **b - 592**

**Gurjanova E.** - Zoogeographical Study of the Arctic Isopods [*Isopoda arctica. Studium zoogeographicum*]. (In Russ.; Engl. Rés.). 2 figs., Arctica, II, 127-152. Leningrad (1934). **b - 593**

After a general introduction dealing with the character of the Isopoda fauna of the Arctic seas, author gives a summarized account of this fauna in the single seas (Barents Sea, White Sea, Kara Sea, Sea Laptev (Nordenskjöld), Oriental Siberian and Tschukotskij Seas, Beaufort Sea, the southwestern part of the Arctic Sea, Norwegian Sea and Greenland Sea). She considers then especially the species of the Atlantic and the Pacific Oceans which penetrate in the eastern and the western parts of the Arctic, the factors which contribute to the propagation of these species and the barriers existing on their way of penetration into the Arctic.

**Gurjanova E.** - Zur Zoogeographie der *Crustacea Malacostraca* des Arktischen Gebietes [*Crustacea malacostraca regionis Arcticae quoad eorum zoogeographiam*]. 1 Abb., Zoogeographica, II, 555-571. Jena (1933 & '35). **b - 594**

Abgesehen von den gewöhnlichen arktisch- borealen Formen unterscheidet Vf. in der Arktis wenigstens 7 selbständige zoogeographische Gruppen arktischer Crustaceen; eine originelle autochthone hocharktische Fauna; zirkumpolare hocharktische Formen, die nicht in das subarktische Gebiet des Barents-Meeres und in die Dawis-Strasse eindringen; Formen rein pazifischer Herkunft. Formen des Polarbeckens; Formen subantarktischen Charakters; nordatlantische Arten von borealem Typus und eine Reliktfauna, von welcher die Aestuarien der grossen sibirischen Ströme besiedelt werden. Liste der für die Fauna des Karischen Meeres neuen Arten.

**Hanström Bertil** - De svenska fynden av kinesiska Ullhandskrabban [« *Eriocheir sinensis* » *in Suetia repertus*]. 1 map., 1 fig., Fauna o. Flora, 6, 273-277. Uppsala (1934). **b - 595**

Table showing the funds of *Eriocheir sinensis* in Sweden from February 1932. Some remarks as to its increasing distribution.

**Herre A. W. C. T.** - Labuan, Borneo, a New Locality for the Whale Shark [*De regione Labuan (in Borneo) ac nova localitate qua reperitur « Rhineodon »*]. Science, 81, 2097, 253-254. New York (1935). **b - 596**

A specimen of *Rhineodon typus* was seen at Labuan, a small island on the northwest coast of Borneo. This gives a new locality in plotting the distribution of whale Shark.

**Kulmatycki W. J.** - Beitrag zur Kenntnis der Verbreitung der Chinesischen Wollhandkrabbe in Mitteleuropa [*Observationes quoad scientiam et distributionem speciei «Eriocheir sinensis» per Europam Centralem*]. Zool. Anz., CVI, 164. Leipzig (1934). **b - 597**

**Lindegg G.** - La *Mercierella enigmatica* Fauvel nello stagno di Cabras in Sardegna [«*Mercierella enigmatica*» *in stagno* Cabras *in Sardinia*]. 5 fig., Natura (Riv. Sc. Natur.), XXV, 4, 135-145. Milano (1934). **b - 598**

L'A. constata la presenza della *Mercierella enigmatica*, nella Pescheria di Cabras in Sardegna, e ne dà la descrizione. Notizie sulla sua distribuzione geografica e sui danni che essa porta alle palificazioni.

**Luther A.** - Ueber die ersten in Finnland gefundenen Exemplare der Wollhandkrabbe [*Exemplaria priora speciei «Eriocheir sinensis»* in *Finlandia reperta*]. Mem. Soc. pro Fauna et Flora Fennica, 1933-34, 10, 69-73. Helsinki (1933-35). **b - 599**

Bericht über vier verschiedene Funde im Finnischen Meerbusen. Erörterung über die mögliche Ausbreitung der Wollhandkrabbe nach Schweden und Finnland.

**Mola P.** - Microfauna e microflora poco conosciute o mal note della Sardegna [*Microfauna et microflora parum notae ad Sardiniam pertinentes*]. Boll. Zool., VI, 1/3, 213-217. Napoli (1935). **b - 600**

La flora microscopica in Sardegna è rappresentata da numerosissime specie appartenenti agli ordini *Schizophyta, Bacillariophyta* o *Diatomee, Conjugatae, Chlorophyceae, Siphonales, Rhodophyceae*. La microfauna è meno conosciuta e ha i suoi rappresentanti tra i *Protozoa, Rotifera* e *Gastrotricha*.

**Moore H. B.** - New Faunistic Records for the Manx Region [*Elenchi novi faunistici regionis* Manx]. Mar. Biol. Stat. Port Erin, Rep. 1934, 47, 27-28. Liverpool (1934). **b - 601**

Records of observed *Protozoa, Coelenterata, Annelida, Crustacea, Mollusca, Echinodermata, Pisces*.

**Noréhn N.** - Havsål funnen i Öresund [«*Conger vulgaris*» *in* Öresund *repertus*]. Fauna o. Flora, 2, 89. Uppsala (1934). **b - 602**

Kurze Mitteilung über ein am 20. Februar 1934 an der schwedischen Südküste gefundenes Exemplar.

**Nouvel H.** - Notes sur la Faune marine de la région de Roscoff [*Notae de fauna marina in regione* Roscoff]. Trav. Stat. Biol. Roscoff, 13, 213-218. Paris (1935). **b - 603**

Ciliés apostomes. Lucernaires. Orthonectides. Chétognathes. Caractéristiques des associations et facteurs influants.

**Parisi B.** - Le tartarughe elefantine delle Isole Galapagos [*Testudines elephantinae Insularum* Galapagos]. Natura (Riv. Sc. Natur.), XXV, 4, 146-148. Milano (1934). **b - 604**

Descrizione delle gigantesche tartarughe superstiti di antichissime faune in via di rapida estinzione, che ancora si trovano in scarso numero di esemplari nel remoto arcipelago delle Galapagos.

**Paspaleff G. W.** - Ueber das Vorkommen von *Bothus rhombus*, L. in Varnaer Golf. (Kurze Mitteilung) [«*Bothus rhombus*» *in Sinu* Varna. *Relatio brevior*]. Arb. Biol. Meeresstation a. Schwarzen Meer in Varna, 3, 55-56. Sofia (1934). **b - 605**

Vorhergehende Angaben. Beschreibung der gefangenen Exemplare.

**Paspaleff G. W.** - Ueber das Vorkommen von *Thaumantias maeothica*, Ostr. im Golf von Varna [«*T. maeothica*» *in Sinu* Varna]. 4 Abb., 1 Tab., Int. Rev. ges. Hydrobiol. und Hydrogr., 31, 273-280. Leipzig (1934). **b - 606**

Verschiedene Annahmen zur Erklärung des Vorkommens von *Thaumantias maeothica*, Ostr. im Golf von Varna. Der Vf. ist der Ansicht, dass die Ursache in der allmählichen Wandlung der hydrobiologischen Verhältnisse im Schwarzen Meer zu suchen ist, wodurch diese Art gezwungen worden ist, sich in die unmittelbare Nähe des Kontinents in für sie geeigneten Verhältnissen zurückzuziehen.

**Pocock R. I.** - The geographical Races of *Paradoxurus* and *Paguma* found in the East of the Bay of Bengal [«*Paradoxurus*» *et* «*Paguma*». *Stirpes geographicae repertae in parte orientali bajae Bengalensis*]. 11 fig., 2 pls., Proc. Zool. Soc. London, 613-683. London (1934). **b - 607**

A. distinguishes different subspecies and races on the basis of differences found in the form and dimensions of the skull and the teeth. For all the species and races considered here measures of the skull and the first upper molar tooth are given.

**Potier de la Varde R.** - Extension du *Spartina Townsendi* dans la Baie du Mont Saint-Michel [*Quaestio de extensione speciei* «*S. Townsendi*» *in baja* Mont Saint Michel]. Bull. Soc. Linn. Normandie, 1933, 71-74. Caen (1934). **b - 608**

**Rensch B.** - Die tiergeographischen Publikationen des Jahres 1932. IV. Marine Tiergeographie [*De geographia faunistica A. 1932. Publicationes. IV. Geographia faunistica marina*]. Zoogeographica, II, 448-453. Jena (1933-35). **b - 609**

Verzeichnis von etwa 30 Arbeiten.

**Santucci R.** - Ricerche sulla fauna del Mar Rosso. La biologia delle acque eritree. Risultati delle prime osservazioni (Dic. 1932-giugno 1933) [*Investigationes in faunam Maris Rubri. De biologia aquarum Erythraearum. Resultatus ex prioribus observationibus*]. 44 fot., 5 graf., Mem. R. Comit. Talassogr. Ital., N°. CCXIV, 1-119. Venezia (1934). **b - 610**

Notizie sull'organizzazione del laboratorio di biologia marina a Massaua, sui suoi impianti, apparecchi ed attrezzi. Località nelle quali sono state svolte le ricerche. Esame del materiale raccolto durante le crociere compiute lungo le coste eritree e tra le isole dell'arcipelago Dahlak.

**Santucci R.** - Le ricerche per lo studio della biologia della fauna delle acque eritree (Nota preliminare) [*Investigationes ad studendam biologiam faunae aquarum Erythraearum*]. Boll. Mus. Labor. Zool. e Anat. Comp. Genova, XIV, 75, 3-7 Genova (1934). **b - 611**

L'A. riassume brevemente i primi risultati ottenuti dalle ricerche faunistiche sui banchi madreporici dell'Eritrea; mette in evidenza in modo particolare le condizioni nelle quali si trovano attualmente detti banchi per quanto concerne le Ostriche da madreperla e da perle.

**Santucci R.** - La presenza nelle acque del Mar Rosso del *Rhineodon typus* A. Smith, squalo gigantesco [« *R. typus* », *squalus permagnus in aquis maris Rubri*]. 7 fig., Boll. Mus. Labor. Zool. e Anat. Comp. Genova XIV, 76, 3-14. Genova (1934). **b - 612**

L'A. segnala per la prima volta la cattura nelle acque del Mar Rosso del *Rhineodon typus*, squalo gigantesco dell'Oceano Indiano e Pacifico, dando la descrizione dei particolari ancora sconosciuti o poco noti.

**Santucci R.** - I risultati delle prime osservazioni sulla fauna delle acque territoriali eritree (Dicembre 1932-maggio 1933) [*Resultatus ex prioribus observationibus quoad faunam aquarum territorialium Erythraearum*]. Boll. Pesca, Piscicolt. Idrobiol., XI, 1, 94-113. Roma (1935). **b - 613**

Studio fisico-chimico-biologico dei banchi a *Meleagrina* e a *Trochus* nel mare Eritreo. Distribuzione delle Oloturie e studio dei fondi sui quali vivono. Ricerche sui Clupeidi e sugli Scombridi. Distribuzione degli Squali più comuni e osservazioni sulla loro alimentazione, sul periodo di maturità sessuale e sulle zone di pesca.

**Schmidt J. P.** - On the Zoogeographical Distribution of the Chief Marine Food-Fishes in the Western Part of the North Pacific [*Quaestio de distributione zoo-geographica praecipuorum piscium edulium marinorum per regiones occidentales Oceani Pacifici Sept.*]. (In Russ.). Bull. Pacif. Comm. Acad. Sc. U.S.S.R., 3, 33-37. Leningrad (1934). **b - 614**

Report sent to the Fifth Pacific Science Congress. Account of the study carried out by the Expedition organized by Soviet Scientific institutions to the Japan, Okhotsk and Bering Seas in 1932, on the zoogeographical distribution of the following marine food-fishes in the area under investigation: *Gadus callarias macrocephalus* Tilesius, *Theragra chalcogramma* (Pallas), *Hippoglossus stenolepsis* Schmidt, *Reinhardtius hippoglossoides* (Walb.), *Atherestes evermanni* Jordan et Starks, *Platessa quadrituberculata* (Pallas), *Pleuronectes stellatus* Pallas, *Limanda aspera* Pallas, as well as other species of *Pleuronectes* L.

**Schmidt P. & Taranec A.** - On the New Southern Elements in the Ichthyofauna of the Northern Part of the Sea of Japan [*Elementa nova meridionalia in fauna ichthyca regionis septentrionalis Maris Japonici*]. (In Russ. & Engl.). C. R. Acad. Sc. U. R. S. S., II, 9, 591-595. Leningrad (1934). **b - 615**

Complexity of the nature of the ichthyofauna of the Sea of Japan, containing an unexpectedly large proportion of southern elements. Results of an investigation carried out by the Pacific Scientific Institute of Fisheries and Oceanography at Vladivostok extending considerably to the North the boundaries of the geographical distribution of species known only from the southern part of the Sea of Japan. Attention is drawn to the distribution of *Sphyrna zygaena* L., *Cololabis saira* (Brevoort), *Trichiurus japonicus* Temm. & Schleg., *Daicocus Peterseni* (Nyström), *Ocynectes maschalis* Jordan & Starks, *O. modestus* Snyder, *Paralichthys olivaceus* Temm. & Schleg., *Kareius bicoloratus* (Basilevsky) and *Verasper moseri* Jord. & Gilbert.

**Setchell W. A.** - Geographic Elements of the Marine Flora of the North Pacific Ocean [*Elementa geographica florae marinae Oceani Pacifici Sept.*]. 12 figs., Amer. Naturalist., LXIX, 560-577. New York (1935). **b - 616**

This work deals principally with the marine Benthos, the Sea grasses and the Seaweeds: classification, different species, their origin and distribution; relations and vicarious pairs of species; hypothesis on Tethys and Oceanus.

**Stechow E.** - Vorkommen eines nordischen Hydroiden, *Corymorpha Sarsi* Steenstrup, im Schwarzen Meer. [« *C. Sarsi* » *in Ponto Euxino reperto*]. Zool. Anz., CVII, 197-198. Leipzig (1934). **b - 617**

**Takahashi K.** - Contribution to the Study of Japanese *Arenicola*. Part I. Notes on the Habits and Distribution of *Arenicola* in Japan [*Arenicola ad Japoniam pertinentia. Contributio in eadem studenda. Pars Ia. De habitat atque distributione per Japoniam*]. Sc. Rep. Tokyo Bunr. Daig., sect. B., I, 24, 271-279. Tokyo (1934). **b - 618**

Ecology and geographical distribution are studied for two species: *A. cristata* and *A. Claparedii*.

**E. L.** - Ullhandskrabban, *Eriocheir*, fångad vid Öland [« *Eriocheir* » *ad insulam* Oeland *pertinens*]. Fauna o. Flora, 1, 48. Uppsala (1934). **b - 619**

Short note about the *Eriocheir sinensis* having been found probably for the first time at the Swedish coast.

## Migrationes et marchatura.

**Bahr K.** - Die Neukuhrener Forellenmarkierungen in den Jahren 1930-1934 [*De marchaturis tructarum, A. 1930/34*]. 1 Abb., 1 Karte, 3 Tab., Ber. Dtsch. Wiss. Komm. f. Meeresf., N. F., VII, 4, 494-510. Leipzig (1935). **b - 620**

Markierung und Aussetzung, Zahl der Wiederfänge Wachstum der wiedergefangenen Forellen. Vergleich des Wachstums von Bach- und Meerforellen. Die Möglichkeit einer wirtschaftlichen Auswertung der bisherigen Markierungsergebnisse.

**Bertin L.** - Exposés de biologie zoologique, 2: Migrations et Métamorphoses de l'anguille d'Europe [*Biologia zoologica. Migrationes et metamorphosis anguillae europaeae*]. 18 fig., 57 pp. Actualités Scient. et Industr., No 264. Paris (1935). **b - 621**

**Blair A. A.** - Ages at Migration of Atlantic Salmon in Miramichi River [*Quaestio de aetate et migratione speciei « Salmo salar » in flumen Miramichi*]. 7 tabl. Journ. Biol. Bd. Canada, I, 3, 159-169. Toronto (1935). **b - 622**

In 1.557 fish examined, the groups, based upon years in the sea and spawning marks, were: grilse or 1 + 2 and 2 +, 3 and 3 + and 1 S. M. and 2 S. M. groups. The 2 and 2 + form 85,1 per cent of the total (grilse excluded), and 1 S. M. 12,8 per cent, and the 3 and 3 +, 2,1 per cent.

Of fish with one spawning mark, 68,3 per cent first spawned as grilse, 29.9 per cent after two sea winters, and 1,8 per cent after three sea winters. The S. M. groups had 11 per cent return to river in less than a year after first spawning, the remainders in little better than a year. Most of the fish with two spawning marks had the same length of absence on both occasions.

Only four smolt ages were found. (A.).

**Bowman A.** - Spawning Migrations of Plaice and Lemon Soles in Scottish Waters [*De migratione pro reproductione specierum « Pleuronectes platessa » et « P. microcephalus » in aquis Scotis*].

2 tabl., VIIe Congr. Int. Aquicult. & Pêche, Paris 1931, Communications, III, 62-72, Impr. du Loiret. Orléans (1935). **b - 623**

It is the purpose of the present communication to show how close the relation may be between the movements of the water masses and the spawning migrations of the two species studied.

**Bretthofer W.** - Wanderung der Fischschwärme und ihr Einfluss auf die Hochseefischerei [*De piscium banchis quoad eorum migrationem pro influentia in piscationem in altum*]. Dtsch. Fischwirtsch., II, 38, 722-723. Berlin (1935). **b - 624**

Nach einigen allgemeinen Betrachtungen über die unberechenbaren Umstände, denen die Hochseefischerei unterworfen ist, bespricht Vf. eingehender das oft vorkommende plötzliche Auftauchen und Verschwinden der Fische mit besonderer Berücksichtigung des plötzlichen Auftauchens ungeheurer Schollenmengen vor der Elbemündung in den Monaten April bis Juni der Jahre 1913 und 1914.

**Chiappi T.** - Persistenza di un ciclo nella montata delle cieche (anguilline) e variazioni nelle piogge estive. III Nota [*Agitur de adsiduo quodam cyclo quoad anguillularum ascensum pro variationibus pluviarum aestivarum*]. Boll. Pesca, Piscicolt. Idrobiol., X, 6, 745-751. Roma (1934). **b - 625**

L'A. studia le variazioni periodiche nella montata delle anguilline in rapporto agli anni dispari e pari, alle stagioni e ai fenomeni fisici terrestri ed astronomici.

**Chiappi T.** - Variazioni quantitative nella montata delle cieche [*Variationes quantitativae quoad anguillarum caecarum ascensum*]. Riv. Biol., XIX, 2, 303-310. Perugia (1935). **b - 626**

In precedenti pubblicazioni l'A. ha segnalato una variazione periodica quantitativa nella montata annuale delle anguilline provenienti dal mare. In otto annate consecutive (1922-1929) riconobbe un ciclo completo costituito da una curva decrescente per i primi 4 anni e successivamente crescente, sulla quale veniva a sovrapporsi una oscillazione biennale; nel presente lavoro viene confermato il ciclo in corso. L'A. esamina le varie cause che possono influire e, basandosi sopra dati pluviometrici raccolti in varie località, viene a segnalare anche per le pioggie primaverili-estive un analogo ciclo e conclude con l'attribuire a questa causa il maggiore o minore quantitativo di cieche d'anguilla che rimontano dal mare in autunno.

**Hansen P. M., Jensen A. J. & Tåning Å. V.** - Cod Marking Experiments in the Waters of Greenland 1924-1933 [*Experientiae quoad marchaturas in « Gadus » in aquis Groenlandicis 1924-1933*]. Medd. Komm. Danm. Fisk.- o. Havunders., Ser. Fisk., X, 1. København (1935). **b - 627**

**Johnson M. W.** - Seasonal Migrations of the Wood-Borer *Limnoria lignorum* (Rathke) at Friday Harbor, Washington [*Migrationes pro anni temporibus speciei « L. lignorum » in* Friday Harbor, Wash.]. 1 fig., 5 tables, Biol. Bull., LXIX, 3, 427-438. Lancaster, Pa. (1935). **b - 628**

*L. lignorum* is a widely distributed marine wood-boring crustacean which is frequently found in vast numbers in infected areas where environmental conditions, especially salinity, are favorable to its requirements. In the paper some conclusions are drawn on account of the effective time to apply protective paints, etc.

**Leim A. H.** - Cod and Haddock Tagging [« *Gadus morrhua* » *et* « *G. aeglefinus* ». *Quaestio de marchatura*]. Progr. Rep. Atlant. Biol. Stat., 15, 3. St. Andrews, N. B. (1935). **b - 629**

**Maljatskij S. M.** - Sur la question des migrations de quelques poissons de la Mer Noire (Communication préliminaire) [*Agitur de migrationibus aliquorum piscium ad Pontum Euxinum pertinentium* (*Communicatio prior*)]. (En russe, rés. franç. & géorg.). 6 graph., 1 carte h. t., Trav. Stat. Piscic. & Biol. Géorgie, I, 1, 211-236. Batoum-Tiflis (1934). **b - 630**

Sur la base de recherches sur les migrations dans la Mer Noire des poissons tels que: *Caspialosa pontica typica* (Eichw.), *C. pontica* var. *danubii* Antipa, *C. maeotica* (Grimm), *C. tanaica* (Grimm), *C. nordmanni* Antipa, *Engraulis encrasicholus maeoticus* Pusanow, *E.* var. *ponticus orientalis* Mayorowa, *E.* var. *ponticus occidentalis* Mayorowa, *Mugil* sp. sp., *Mullus barbatus* L., l'A. distingue deux types de migrations des poissons, dont les unes dépendent des changements qui surviennent dans le genre de vie des poissons, tandis que les autres sont pour la plupart en fonction de certains procès physiologiques qui se déroulent dans l'organisme du poisson. Il étudie les caractéristiques particulières de ces deux formes de migrations avec référence spéciale à leur relation avec le système des courants dans la Mer Noire.

**McMottley C.** - A Note on the Rôle of Vision in the Spawning Migration of Trout [*Agitur de momento quod visio suscipit inter migrationem pro reproductione speciei « S. kamloops »*]. Copeia 2, 98. New York (1934). **b - 631**

The fact that a blind *Salmo kamloops* has undertaken a normal spawning migration upstream must be due to sensory stimuli rather than visual ones.

**Mikhajlov G.** - Les migrations du printemps et les objectifs de la flotte des chalutiers [*De migrationibus verninis deque propositis classiculae piscatoriae retis auxilio reptantis*]. (En russe). Tabl., Za Rybn. Ind. Severa, 5, 34-36. Leningrad (1935). **b - 632**

**Miyosi Kiyohide** - Influences of the Quantity of Flow, the Temperature of Water etc., upon the Ascent of Fish-way by *Plecoglossus altivelis* (T. & S.) [*Influentia quantitatis currentiae, aquae temperaturae etc., in ascensionem piscium migrantium et in eorum cursum. Perpenditur species* « *P. altivelis* »]. (Jap. Text, Engl. Rés.). 5 tabl., Bull. Jap. Soc. Scient. Fish., IV, 1, 47-53. Tokyo (1935). **b - 633**

Fairly systematic influences of the quantity of flow, the temperature of water, etc. upon the ascent of fish-way by *Plecoglossus altivelis* are recognizable, when the probabilities of actual coincidences are compared with those of accidental ones.

**Nall G. H.** - Sea-Trout of the Montrose District. Part III. - The Migrations of Sea-Trout [*De tructa marina in districtu* Montrose. *Tructae marinae migrationes*]. 5 tables, 1 map., Fish. Bd Scotl., Salmon Fish., III, 4-24. Edinburgh (1935). **b - 634**

The present paper, which forms the continuation of two previous ones, describes the migrations of sea-trout ascertained (*a*) by earlier marking operations, (*b*) by marking in the Montrose district. It is established that, though in some districts the majority of sea-trout may confine their range of travel chiefly to the estuarial and shore waters near their native rivers, in others they travel long distances in the coastal waters, and not a few of them far out into the open sea.

**Netchaeff A.** - Marking of Spring Mackerels (*Scomber scomber* L.) in the Spring of 1933 [*De marchaturis verninis speciei « S. scomber ». Vere*

*1933*]. (In Bulg., Engl. Rés.). Trav. Stat. Ichthyol. à Sozopol-Bulgarie, II, 14-26. Burgas (1934). **b - 635**

**Ricker W. E. & Robertson A.** - Observations on the Behaviour of Adult Sockeye Salmon during the spawning Migration [*Observationes quoad modum agendi adulti « Oncorhyncus » inter migrationes pro maturatione*]. Canad. Field-Natural., XLIX, 132-134. Ottawa (1935). **b - 636**

**Strubberg A. C.** - Marking Experiments with Cod at the Faroes. II. Second Report. Experiments in 1923-1927 [*De marchaturis in « Pleuronectes » in insulis* Faroe. *II. Relatio secunda. Experientiae peractae 1923-1927*]. Medd. Komm. Danm. Fisk. o. Havunders., Ser. Fisk. IX, 7. København (1933). **b - 637**

**Sugano Susumu** - The Shoreward Migration of Japanese King Crabs at a Fishing Ground in Western Kamtchatka [*De migrationibus ad oram maritimam speciei japonicae « Limulus moluccanus » in aquis piscosis in* Kamtchatka *occid.*]. (In Jap., Engl. Rés.). 2 fig., Bull. Jap. Soc. Scient. Fish., IV, 2, 98-100. Tokyo (1935). **b - 638**

Examination of set-net catches of Japanese King Crabs in Voroskaya fishing ground from mid-June to late-August 1934. Conclusions as to the direction and time of migration according to the catches found in the nets.

**Templeman W.** - Lobster Tagging in the Gulf of St. Lawrence [*De cancrorum marchatura in Sinu* St. Lawrence]. 4 figs., 3 tabl., Journ. Biol. Bd. Canada, I, 4, 269-278. Toronto (1935). **b - 639**

An individual lobster may occasionally move several kilometres in one day, yet the resultant of all the movements of a group of Lobsters during the year is an average removal of only about 8 kilometres from their point of liberation. An occasional lobster, however, may have wandered 30 to 40 kilometres away during this time. The Lobsters scatter equally in both directions along shore. Females apparently wander further than males. The intensity of fishing is very high in the areas examined, probably about 40 per cent of the larger Lobsters being caught during a two months' fishing season.

**Uno Michio** - Horizontal Migraton of the Japanese King-crab, *Paralithodes camtschatica* (Tilesius), of the West Coast of Kamtchatka [*De migrationibus horizontalibus speciei japonicae « P. camtschatica », ad litus occid. regionis* Kamtchatka *pertinentis*]. 1 fig., 2 tabl., Bull. Jap. Soc. Scient. Fish., III, 5, 239-241. Tokyo (1935). **b - 640**

Horizontal migration of the Japanese king-crab was studied by digesting the record of tagging experiments performed by H. Marukawa (Journ. Imp. Fish. Exp. Stat. 4, 1933). The method of treatment adopted in the present paper is as follows: for the tagged Crabs liberated in the northern, central and southern parts of the sea off the coast of Kamtchatka, the regional percentage distribution of recaptures was calculated separately in each successive season, i. e., the season of liberation, the next season, and so on. The migration was inferred from the difference of the distribution in a season from that in the preceeding season.

**An.** - Migrations of Animals [*Animalium migrationes*]. Nature, CXXXVI, 3439, 500-501. London (1935). **b - 641**

Account of a discussion at the zoological section of the British Association at Norwich on September 10, 1935. Dr. Mackintosh described the migrations of Whales, and Dr. Russell those of Fishes.

**An.** - Cod Tagging Experiments [*Experientiae pro merluccii marchatura*]. 1 map., Rep. Newfoundl. Fish. Research. Laborat., II, 3, 37-39. Newfoundland (1935). **b - 642**

Results of tagging experiments on cod undertaken in 1934, from which some conclusions are drawn on account of the major migrations of cod in the Newfoundland waters, as well as of the inter-relationship of bank and inshore cod.

**Deutsche Seewarte** - Zur Einschleppung der Wollhandkrabbe [*Introductio in Europam speciei « Eriocheir sinensis »*]. Seewart, IV, 6, 266. Hamburg (1935). **b - 643**

Einige Beispiele, welche zeigen, wie die Wollhandkrabbe durch Fahrzeuge mitgeschleppt worden ist.

## Animalium societas — Biocenosis — Symbiosis.

**Allee W. C.** - Concerning the Organization of Marine Coastal Communities [*De biocenosi in litoribus marinis*]. Ecol. Monogr., IV, 3, 541-554. Brooklyn (1934). **b - 644**

The existence of a superorganismic unity is pointed out showing the tendency not alone between plants and animals to form biotic communities but also between the biota and the environment. Importance of recognizing the essential unity of this united relationship for oceanic studies.

**Antipa G.** - L'organisation générale de la vie collective des organismes et du mécanisme de la production dans la biosphère [*Agitur de organisatione generali vitae socialis organismorum atque etiam reproductionis mechanismi in biosphaera*]. Acad. Roumanie études et rech , 25, 5-84. Bucarest (1935). **b - 645**

Exposé des résultats d'une longue série de recherches sur les problèmes biologiques et particulièrement sur le mécanisme de la production dans les eaux du Danube inférieur et de la Mer Noire, qui, des conditions ainsi variables et compliqués présentées par cette mer, ont ammené à des considérations biologiques générales sur la production dans d'autres mers et Océans et enfin sur la Biosphère entière. L'A. a pu arriver aux lois générales, gouvernant le déploiement de la vie animale et vegetale dans les eaux, la formation des biocénoses qui ne sont pas « un phénomène sporadique et facultatif, mais un lois général pour tous les êtres », pourvu que la vie individuelle soit subordonnée à la vie collective et à la résultante de l'activité vitale de tous les composants. Rôle de la « Biocénotique » et de la « Biosociologie ». Les principes fondamentaux de l'organisation sociale et économique de la vie collective, en sa totalité, sont généraux et universels.

**Arcangeli A.** - Il genere *Jaera* Leach nel Mediterraneo e la convivenza occasionale di *Jaera hopeana* A. Costa con *Sphaeroma serratum* (Fabr.) (Isopodi marini) [*Genus « Jaera » in mari Mediterraneo. Conviventia occasionalis speciei « J. hopeana » cum « S. serratum »*]. 2 tav., Boll. Mus. Zool. Anat. Comp. R. Univ. Torino, XLIV, serie 3, 56, 273-292. Torino (1934). **b - 646**

Descrizione delle due specie *J. hopeana* ed *J. marina* e loro area di diffusione. Osservazioni e deduzioni sulla associazione di *Jaera hopeana* con *Sphaeroma serratum*, riscontrata a Cagliari. Bari, Tunisia, Marocco, Francia Mediterranea ed Atlantica.

**Cecchini C. & Parenzan P.** - Anfipodi del Golfo di Napoli [*Amphipoda Sinus Neapolitani*]. 35 fig., Pubbl. Staz. Zool. Napoli, XIV, 2, 1934-1935, 153-250. Napoli (1935). **b - 647**

Ordinamento sistematico, distribuzione delle specie e studio delle diverse biocenosi degli Anfipodi raccolti in oltre mille dragaggi compiuti sistematicamente per quattro anni nell'esplorazione del Golfo di Napoli, allo scopo di conoscere la formazione delle biocenosi bentoniche. Dal materiale esaminato risultano 16 specie nuove per il Golfo di Napoli.

**Fischer-Piette E.** - Sur l'équilibre des faunes: interactions des moules, des pourpres et des cirripèdes [*De fauna quoad eius aequilibrium. Correlationes inter* «*Mytilus edulis*», «*Purpura lapillus*» et «*Balanus balanoides*»]. C. R. Soc. Biogéogr., XCII, 47-48. Paris (1934). **b - 648**

**Fraser H.** - The Fauna of the Liverpool Bay Shrimping Grounds and the Morecambe Bay Prawning Grounds as revealed by the Use of a Beam-Trawl [*De fauna regionum ubi invenitur* «*Cancer crangon*» *in Baja* Liverpool, *et* «*Palaemon*» *in Baja* Morecambe, *ut visa est per retia tracta*]. Proc. & Trans. Liverpool Biol. Soc., XLVIII, 65-78. Liverpool (1935). **b - 649**

A comparative discussion on the faunas of the Morecambe Bay and the Mersey Estuary, analysis and synoptic table. Relationship between fauna and physical conditions.

**Hiro F.** - A Study of Cirripeds Associated with Corals Occurring in Tanabe Bay [*Cirripedia cum Corallis consociata in baja* Tanabe]. 12 figs., 2 tabls. Rec. Oceanogr. Works Japan, Nat. Rés. Counc., VII, 1, 45-72. (Contr. Seto Marine Biol. Labor. n. 43). Tokyo (1935). **b - 650**

Key to species and varieties of Cirripeds associated with Corals occurring in Tanabe Bay. Description of a single species of *Creusia* and 15 species of *Pyrgoma*. Remarks on distribution.

**Kidder G. W. & Summers F. M.** - Taxonomic and Cytological Studies on the Ciliates Associated with the Amphipod Family *Orchestiidae* from the Woods Hole District. I. The Stomatous Holotrichous Ectocommensals [*Ciliata cum Amphipodis familiae Orchestiidae consociata in regione* Woods Hole. *I. Holotricha ectocommensales*]. 2 figs., Biol. Bull., LXVIII, 1, 51-68. Lancaster, Pa. (1935). **b - 651**

Three species of the amphipod family *Orchestiidae* were investigated for ectocommensals. These forms are *Talorchestia longicornis* (Say), *Orchestia agilis* Smith, and *O. palustris* Smith. The material was collected in the vicinity of Woods Hole, Mass. The stomatous, holotrichous Ciliates that live as ectocommensals on the Amphipods studied belong to two genera: *Allosphaerium* gen. nov., of which there are five species, and *Chilodonella* Strand, of which there are three new species. All species of Ciliates are well adapted to their environment, being small and flat and possessing ventrally placed thigmotactic cilia.

The binary fission of one species (*Allosphaerium convexa* gen. nov. sp. nov.) is described.

**Leloup E.** - Contributions à l'étude de la faune belge. V. Les Hydropolypes épizoïques du ver polychète *Aphrodite aculeata* (Linné) [*Contributio in faunam belgicam studendam. De Hydropolypis epizoicis in specie* «*A. aculeata*»]. Bull. Mus. R. Hist. Natur. Belgique, X, 41, 1-6. Bruxelles (1934). **b - 652**

Parmi ces Hydropolypes l'A. reconnu la présence d'espèces qui vivent à la côte belge: *Hydrallmania falcata Laomedea (Obelia) longissima, L. (O.) spinulosa, Campanularia Johnstoni, Hydractinia (Podocoryna) carnea, Bougainvillia ramosa* forme *muscus* et *Perigonimus repens*.

**Maury A.** - La biologie des crustacés [*De biologia Crustaceorum*]. Bull. Soc. Amis Inst. Océanogr., XVII, 48, 7-8; 49, 6-8. Le Havre (1935). **b - 653**

Description de quelques associations entre les méduses et les crustacés, les actinies et les crustacés et illustration de quelques cas particuliers d'association du Bernard l'Hermite avec des actinies, et avec les annélides du groupe des *Néreis*. L'A. distingue pour conclure les deux genres d'associations entre deux espèces différentes, c. à d. les associations mutualistes et les associations unilatérales, en ce qui concerne les avantages que chaque espèce en tire.

**Okada Yo K.** - *Amblyosyllis nigrolineata*, une nouvelle variété de *A. speciosa* Izuka [«*A. nigrolineata*», *varietas nova ex* «*A. speciosa*»]. 2 figs., Annot. Zool. Jap., XIV, 3, 317-320. Tokyo (1934). **b - 654**

Description de la nouvelle variété que l'on trouve en abondance à Misaki, toujours en association avec une éponge déterminée. L'A. donne la diagnose et illustre les caractéristiques de cette nouvelle forme.

**Pearse A. S.** - Inhabitants of certain Sponges at Dry Tortugas [*De inquilinis in Spongiis quibusdam in* Dry Tortugas]. Carnegie Inst. Washington Publ., 435, 119-134. Washington (1934). **b - 655**

Over 17000 animals have been found living in a large loggerhead sponge, *Speciospongia vespara*. A new pontonid shrimp *Coralliocaris pearsei* is described.

**Smith H. G.** - On the Presence of Algae in certain *Ascidiacea* [*De Algis in quibusdam Ascidiaceis*]. 5 figs., Ann. and. Magaz. Natur. Hist., XV, 90, 615-626. London (1935). **b - 656**

Discussion on the association between Algae and *Diplosoma virens, D. voeltzkowi, D. viride* and *Trididemnum cyclops*; origin and benefit of the association.

**Spärck R.** - On the Importance of Quantitative Investigation of the Bottom Fauna in Marine Biology [*Agitur de momento pro Biologia marina quoad investigationem quantitativam in faunam profundam*]. 3 tabl., Journ. Cons. Expl. Mer, X, 1, 3-19. Copenhague (1935). **b - 657**

The quantitative investigations of the bottom fauna by means of Petersen's grab has made it possible to distinguish fairly easily between waters with an abundance of bottom animals, i. e. fish-food, and those with a poor bottom fauna. It is possible to describe a few widely distributed communities characterized by a few dominant animals and to give a general appearance to the fauna of the particular area. These communities are not biocoenoses. They may be arranged in groups according to their geographical distribution, and can be further divided into types according to the substratum.

**Vatova A.** - The Fishery Grounds Near Alexandria. II. A Bottom Sample Taken at Alexandria [*De fundis piscosis Alexandriae. Specimen ex fundo Alexandriae depromptum*]. 1 fig., 2 tables. Fish. Research. Direct., Notes & Mem., 9, 1-3. Cairo, Egypt (1935). **b - 658**

Account of the analysis of a sample taken from the bottom at 3 metres depth on September 2, 1933 in the Eastern Harbour, Alexandria, which is important in a way, as the first one taken in the Eastern Mediterranean. Comparison of the percentage share of different animal groups in the sample described and their biocoenosis and in the samples taken respectively at Venice and Algiers.

## Parasiti, Patologia et Terathologia.

**Aliberti G. T.** - Sull'equilibrio funzionale degli organi studiato attraverso il parassitismo. Ricerche in *Merluccius vulgaris* Flem [*Aequilibrium functionale organorum, parasitismi auxilio perpensum. Investigationes in speciem « Merluccius vulgaris »*]. 10 fig., 2 tav., Boll. Mus. Lab. Zool. e Anat. Comp. Genova, XV, 81, 3-23. Genova (1935). **b - 659**

Riassunta brevemente la situazione attuale dei problemi connessi col parassitismo da elminti, l'A. prende in considerazione l'influenza del parassita *Ascaris capsularia* sul suo ospite: *Merluccius vulgaris*. Condizioni del parenchima epatico e della mucosa gastrica in relazione alla entità dell'infezione mentre le zone non infestate rimangono pressochè inalterate nella loro funzione: la massa totale del fegato sarebbe superiore alla quantità di tessuto necessaria alle esigenze ordinarie dell'organismo.

**Ankel W. E.** - Die Pantoffelschnecke, ein Schädling der Auster [« *Crepidula fornicata* » *Ostreis parasitus noxius*]. 2 Abb., Natur u. Volk, LXV, 4, 173-176. Frankfurt a. M. (1935). **b - 660**

Lebensgeschichte dieses aus Nordamerika stammenden Schädlings, der sich jetzt auf Austernbänken der englischen Süd–und Ostküsten verbreitet.

**Bennati-Mouchet S.** - Castration parasitaire de l'*Eupagurus prideauxi* par le *Peltogaster curvatus* [*De castratione parasitaria speciei « E. prideauxi » per speciem « P. curvatus »*]. 7 fig., Trav. Stat. Biol. Roscoff, 12, 11-19. Paris (1934). **b - 661**

Le *Peltogaster* fixé sur l'*Eupagurus prideauxi* étudié a entraîné: 1. L'inhibition presque totale du testicule. 2. L'arrêt des phénomènes musculaires du canal déférent. 3. La formation de spermatophores plus ou moins vides et toujours déformés le plus souvent unis entre eux. 4. Des altérations histologiques de l'assise glandulaire interne du canal. Ces conclusions viennent confirmer et complèter celles énoncées au debut du travail. (A.).

**Blegvad H.** - An Epidemic Disease of the Eel-Grass [*Morbus epidemicus speciei « Zostera marina »*]. 1 map., Rep. Danish. Biol. Stat., 1934, XXXIX, 3-8. Copenhagen (1935). **b - 662**

After a brief introduction, in which author points out the importance of *Z. marina* L. to the animal life of the sea and as an industrial article, he communicates some extracts from the answers sent by fishery assistants in Danemark to an inquiry about the disease of oel-grass observed in 1932 in several countries, with special regard to the whole of the Danish coast.

**Borcéa L.** - Nouvelle note sur *Acanthobothrium ponticum* [*Nota nova de « A. ponticum »*]. Ann. Scient. Univ. Jassy, XX, 480-481. Jassy (1935). **b - 663**

Dans l'intestin de *Trygon pastinaca* de la Mer Noire, l'A. a recuelli un nouvel exemplaire d'*Acanthobothrium ponticum*.

**Borcea L. & L.** - Sur la présence du Cestode: *Diphyllobothrium stemmacephalum* Cobbold comme parasite chez le Marsouin *Phocaena phocaena* de la Mer Noire [« *Diphyllobothrium* » *parasitus in* « *Phocaena* » *Ponti Euxini*]. Ann. Scient. Univ. Jassy, XXI, 524-525. Jassy (1935). **b - 664**

L'A. a trouvé pour la première fois, chez un seul exemplaire de *Phocaena phocaena* l'espèce *D. stemmacephalum*.

**Boschma H.** - Rhizocéphales (Supplément) [*Rizocephala* (*Additio*)]. 4 fig., Mém. Mus. R. Hist. Natur. Belgique; Résult. Scient. Voyage, aux Indes Orient. Néerl. de LL. RR. la Prince e la Princesse Léopold de Belgique, III, 16, 1-8. Bruxelles (1934). **b - 665**

On a trouvé des échantillons de *Trapezia cymodoce* Herbat infectés par des Sacculinidés, qui appartiennent à une nouvelle espèce de *Sacculina*: *S. irrorata* nov. sp., se distinguant des autres espèces du genre principalement par les particularités de la cuticule extérieure du manteau.

**Branch W. C.** - New Parasitic Copepods [*Copepoda nova parasitica*]. 3 pls. Smithson. Miscell., XCI, 19, 1-9. Washington (1935). **b - 666**

This collection contains an exceptionally large number of males with new information on that sex. Emendments. Description of new forms: *Caligus lobatus* n. sp., *Nesippus Crypturus* Heller, new male, *Krøyeria dispar*, n. sp.

**Brown E. M.** - On *Oodinium ocellatum* Brown, a parasitic Dinoflagellate causing epidemic Disease in Marine Fish [*De « Oodinium ocellatum » Dinoflagellato parasitico morbos ferente piscibus marinis*]. 3 pls., 3 figs., Proc. Zool. Soc. London 1934, 3, 583-607. London (1934). **b - 667**

The different stages of development of *Oodinium ocellatum* Brown, its mode of nutrition, comparison with other spp. of the genus. A. draws the attention to the existence of a complex canal which ressembles the pulsatile apparatus of the free forms without, however, explaining its function. Effect of temperature on infestation and multiplication. List of 28 spp. of Fishes infected by this parasite.

**Butcher R. W.** - Wasting Disease of *Zostera marina* [*Morbus vastator speciei « Z. marina »*]. Nature, CXXXV, 3414, 545. London (1935). **b - 668**

The A. believes that the narrow-leaved variety of *Zostera*, which is more resistant to the wasting disease, is produced by a change in « nutritional balance », and that the disappearance of the wide-leaved variety is due to a variety of circumstances. (Nature's abstract on page 549).

**Bytinski-Salz H.** - Un Policlado (*Stylochus pilidium* Lang.) dannoso ai parchi ostricoli [« *S. pilidium* » *Ostreis obnoxius*]. 3 fig., 3 tav. f. t., Thalassia, II, 1, 1-24. Venezia (1935). **b - 669**

Dati sull'ostricoltura e sulle condizioni idrografiche del Canal di Leme. Cenni sulla biologia delle Planarie, e distribuzione geografica dello *Stylochus pilidium*. Danni prodotti dalle planarie ai parchi ostricoli, e mezzi di lotta contro lo *S. pilidium* che ne è il maggior nemico: allontanamento di tutte le ostriche infette; appoggio degli stecchi su corde nuove; lavaggio delle corde con ostriche. Con questi metodi, se la planaria non si può completamente distruggere, per mancanza di un nutrimento adatto non potrà aumentare la sua diffusione e si riuscirà ad impedire una infezione in massa da parte delle larve.

**Carini A.** - Sobre una hemogregarine de um peixe do mar do Brasil [*De haemogregarina piscis cuiusdam marini Brasiliensis*]. 2 fig., Arch. Biol., XVI, 172, 13. (1933). **b - 670**

*Haemogregarina mugili*, n. sp. *Mugil brasiliensis*.

**Caroli E.** - La fissazione dei Bopiridi addominali, parassiti di Caridei, sull'ospite definitivo [*De Bopiridis abdominalibus parasiticis in Carideis quoad eorum fixationem in hospite ultimo*]. Boll. Zool., V, 6, 233-238. Napoli (1934). **b - 671**

Le larve di *Phrixus*, parassiti dei Caridei *Hippolyte* e *Processa*, si stabiliscono dapprima nella cavità branchiale dell'ospite. La spiegazione di questo comportamento del *Phrixus* starebbe nel fatto che la larva è meglio protetta e può trasformarsi in migliori condizioni nella cavità branchiale, anzi che sotto l'addome dell'ospite.

**Chatton E. & Lwoff A.** - Sur un Cilié Thigmotriche nouveau: *Gargarius gargarius* n. gen., n. sp., de *Mytilus edulis* [*Ciliatum novum Thigmotrichum. « G. gargarius » n. gen., n. sp. in « M. edulis »*]. Bull. Soc. Zool. France, LIX, 375-376. Paris (1934). **b - 672**

**Chatton E. & Lwoff A.** - Protistologica No 1. Les Ciliés apostomes. Morphologie, cytologie, éthologie, évolution, systématique. Première partie: Aperçu historique et général. Etude monographique des genres et des espèces [*Protistologica N. 1. Ciliata apostomata. Morphologia, cytologia, ethologia, evolutio, systematica. Pars Iª. Compendium historicum generale. Studium monographicum generum et specierum*]. 227 fig., 21 pl., Arch. Zool. Exp. et Gén., LXXVII, 1, 1-453. Paris (1935). **b - 673**

1) Apostomes phorétiques sur les Crustacés (Copépodes), évoluant à la faveur d'un traumatisme, dans leurs humeurs fraîches, avec ou sans intervention d'un prédateur. 2) Apostomes phorétiques sur les Crustacés, évoluant dans leur fluide exuvial. 3) Apostomes phorétiques sur les Crustacés, mais passant chez ceux-ci par un stade parasite interne précédant l'évolution exuviale. 4) Apostomes phorétiques et parasites sur les phorontes d'Apostomes. 5) Apostomes phorétiques sur les Crustacés, puis parasites durables dans la cavité gastro-vasculaire des Actinies. 6) Apostomes à cycles incomplètement connus, présumés phorétiques actuels sur les Crustacés, parasites digestifs des Ophiures et des Cténophores. 7) Apostome à cycle incomplètement connu, présumé phorétique actuel ou ancestral sur les Crustacés, parasite rénal des Céphalopodes. Annexe: Ciliés incertae sedis, réputés ou présumés avoir des relations avec les Apostomes. Bibliographie.

**Cole H. A.** - On Some Larval Trematode Parasites of the Mussel (*Mytilus edulis*) and the Cockle (*Cardium edule*) [*Trematodes quidam parasiti larvales in « M. edulis » et « C. edule »*]. 5 figs., Parasitol., XXVII, 2, 276-280. London (1935). **b - 674**

Account of some new forms discovered by the A. in Mussels and Cockles chiefly from the estuary at Conway and some other beds on the North Wales coast. Orange sickness of Mussels (*Cercaria tenuans* (Sporocyst. Cercaria). A new Bucephalus (*B. mytili*) from the Mussel.

**Cottom C.** - Wasting Disease of *Zostera marina* [*Morbus destructor in « Zostera marina »*]. Nature, CXXXV, 3408, 306. London (1935). **b - 675**

The A. agrees with Dr. Kathleen Blackburn that the narrow-leaved form of the eel grass is not a hybrid but a different form of *Zostera marina*. From observations on the Atlantic coast from Maine to North Carolina, he concludes that the variation cannot be accounted for simply as due to the depth at which the plant grows, but that other factors such as the age of the plant, temperature, salinity, water currents and conditions of soil or rock bottom may affect the width of the leaves. (Nature's abstract on page 310).

**Dangeard P.** - Présence à Roscoff d'une Chytridiale parasite des Ectocarpées [*Species « Eurychasma Dicksonii » parasitica in Ectocarpis*, Roscoff *reperta*]. Ann. Protistol., IV. Paris (1934). **b - 676**

Il s'agit de l'*Eurychasma Dicksonii*, qui se développe dans les cellules de certains *Ectocarpus*, surtout du *Stictyosiphon Corbierei*.

**Day J. H.** - The Life History of *Sacculina* [*Accretionis cyclus in « Sacculina »*]. 11 fig., Quart. Journ. Microsc. Sc., LXXVII, 549-583. London (1935). **b - 677**

Conclusions as to the different stages of development, infestation, moule and regeneration based on the research undertaken during a whole year on *Portunus holsatus* in the estuary of the Mersey.

**Dehorne A.** - Observations cytologiques sur une nouvelle espèce d'*Haplosporidium* parasite du coelome de *Nereis diversicolor* O. F. Müller [*Observationes cytologicae novae cuiusdam speciei ex Haplosporidibus parasiticae in coelomate speciei « N. diversicolor »*]. C. R. Acad. Sc., CC, 7, 589-592. Paris (1935). **b - 678**

Tous les segments de l'animal contiennent des plasmodies aux mêmes stades de la multiplication, mais aucun aspect de la production des sporoblastes. Le noyeau est quiescent. Phénomènes initiaux et consécutifs de la prophase. Aspects des phénomènes de reconstitution nucléaire. Comportement du nucléole au cours de la mitose.

**Dollfus R. Ph.** - *Tynnascaris Legendrei* n. gen., n. sp. de l'estomac du germon, *Germo alalonga* (Gmel.) [*« T. Legendrei » in stomacho speciei « G. alalonga »*]. 8 fig., Bull. Soc. Zool. France, LVIII, 1, 7-13. Paris (1933). **b - 679**

**Dollfus R. Ph.** - Sur quelques parasites de poissons récoltés à Castiglione. [*De piscium parasitis*, Castiglione *collectis*]. 48 fig., Stat. Aquic. et pêche de Castiglione (1933), 2, 199-279. Alger (1935). **b - 680**

Description des spécimens récoltés appartenant aux Trématodes, Cestodes, Nématodes, Copépodes et Isopodes, et poissons infestés. Bibl.

**Gallien L.** - Sur la larve de *Dactylocotyle luscoe* V. Ben. Hesse. Trématode monogénétique marin [*De larva speciei « D. luscoe » Trematodis monogenetici marini*]. 3 fig., Bull. Soc. zool. France, LIX, 68-73. Paris (1934). **b - 681**

Description de *Dactylocotyle luscoe*, ectoparasite des branchies de *Gadus luscus* L. Comparaison avec les larves de *Gyrodactylus* et de *Polystomum*. Morphologie, biologie larvaire, cycle évolutif.

**Guiart J.** - Cestodes parasites [*Cestoda parasitica*]. 12 fig., 5 pl., Rés. Campagnes Scient. du Prince Albert I, Fasc. 91, 105 pp. Monaco (1935). **b - 682**

Étude des Cestodes parasites de Sélaciens et particulièrement des Tétrarhynques. Plusieurs espèces nouvelles trouvées ont permis de créer 3 familles et 7 genres nouveaux, gen. *Rhopalothylax; Clujia; Grillotia; Pseudobothrium: Atelemerus; Diesingella; Trigonocothyle*. Répartition géographique des parasites. Index systématique des hôtes avec leurs parasites.

**Guiart J.** - Le véritable *Floriceps saccatus* de Cuvier n'est pas la larve géante de tétrarhynque vivant dans le foie du Môle (*Mola mola*) [*« F. saccatus » verus non idem est ac larva gigas*

*tetrarhynchi in hepate viventis speciei « M. mola »*]. 7 fig., Bull. Inst. Océanogr., 666, 1-15. Monaco (1935). **b - 683**

Le *Floriceps saccatus* n'a rien à voir avec la larve géante du foie du môle. L'A. réserve le nom de *Floriceps saccatus* Cuvier 1817 à la petite larve craspédote de tétrarhynque contenue dans les kystes sous-péritonéaux du seul *Mola mola*.

Les genres *Floriceps* Cuvier 1817 et *Callotetrarhynchus* Pitner 1931 sont synonymes.

**Gurney R.** - The Development of certain Parasitic Copepoda of the Families *Caligidae* and *Clavellidae* [*De progressione aliquorum Copepodorum parasiticorum ex familiis « Caligidae » et « Clavellidae »*]. 43 fig., Proc. Zool. Soc. London, 2, 177-217. London (1934). **b - 684**

Different larval stages; comparison with those of the *Decapoda*.

**Heding S. G.** - *Entocolax trochodotae* n. sp. A New Endoparasitic Gastropod [*« E. trochodotae » n. sp., gasteropodus novus endoparasiticus*]. 2 tabl., Vidensk. Medd., XCVIII, 207-214. København (1934-35). **b - 685**

Diagnosis. Description: Female, male, larvae. Distribution. Discussion. This endoparasitic snail has been found in the body-cavity of the antarctic Chiridotid *Trochodota purpurea*.

**Heldt** - Sur le mal dont périssent les muges de l'Ischkeul et sur les remèdes possibles [*Morbus in Mugilidis ad regionem* Ischkeul *pertinentibus atque remedia*]. Communications VII^e^ Congr. Int. Aquicult. & Pêche Paris 1931, III, 32-35. Impr. du Loiret. Orléans (1935). **b - 686**

Le mal et la mortalité des muges semblent être dûs à l'absence de courant marin pendant le temps de la maturation sexuelle. Moyen d'y remédier.

**Hsü H. F.** - A new Nematode, *Anisakis alata*, from the Walrus [*« A. alata » Nematodes novus, e specie « Trichechus rosmarus »*]. 1 pl., Peking Nat. Hist. Bull., VIII, 1, 59-62. Peking (1933). **b - 687**

**Ishii N.** - Q. Studies on the Family *Didymozooidae* (Monticelli, 1888) [*Studium familiae « Didymozooidae »*]. 65 figs., Jap. Journ. Zool., Trans., VI, 2, 279-386. Tokyo (1935). **b - 688**

Didymozooid Trematodes are known to occur on the gill or in the mouth, the mucous membrane of the mouth cavity, esophagus, and intestine, or in the peritoneal cavity or skin of marine Fishes or between their muscles.

*Didymocystis katsuwonicola* (Okada) encysted in the epidermis of the gills of certain marine Fishes; nomenclature; description, life history. Classification of *Didymozooidae*: historical review; revision with keys to subfamilies, genera, subgenera and species; list of *Didymozooidae*, with hosts, habitats and localities. Description of the species found in Japan.

**Iwasa P.** - Two Species of Whale-Lice (*Amphipoda, Cyamidae*) Parasitic on the Right Whale [*Balaenae pediculorum species duae (Amphipoda, Cyamidae) in balaena parasiticae*]. 4 pls., Journ. Fac. Sc., Hokkaido, Imp. Univ., III, Ser. 6, 1, 33-39. Hokkaido (1934). **b - 689**

Description of *Cyamus ovalis* and *C. erraticus* found attached to the skin of a right-whale captured in the North Pacific off Hokkaido. Morphological differences.

**Johnston T. H.** - New Trematodes from South Australian Elasmobranchs [*Trematoda nova in Elasmobranchiis australiensibus meridionalibus*]. 3 figs., Austral. Journ. Exp. Biol. & Med. Sc., XII, 1, 25-32. Sidney (1934). **b - 690**

*Calicotyle australis* and *Probolitrema rotundatum* from *Trigonorrhina fasciata*; *P. clelandi* and *P. simile* from *Mustelus antarcticus*.

**Kirtisinghe P.** - Parasitic Copepods of Fish from Ceylon [*Copepoda parasitica piscium ad* Ceylon *pertinentium*]. 46 figs., Parasitol., XXVII, 3, 332-344. London (1935). **b - 691**

*Pennella diodontis* Oken (1816), *Lernaeolophus sultanus* Nordmann (1864), *Pseudocycnus appendiculatus* Heller (1865), *P. armatus* Bassett-Smith (1898), *Brachiella thynni* Cuvier (1830), *Thysanote appendiculata* Steenstrup and Lütken (1861). For every sp. are given: Host and record, description of males or females, dimensions, remarks on synonymies etc.

**Krull Wendell H.** - *Cercaria bessiae* Cort and Brooks, 1928, an injurious Parasite of Fish [*« C. bessiae » piscibus parasitus obnoxius*]. 2 figs., Copeia, 2, 69-73. New York (1934). **b - 692**

Experiments show that *Cercaria bessiae* may be a cause of deaths of many fish fry. The sunfish, *Apomotis cyanellus*, is reported as a new 2nd intermediate host for *Neascus ambloplitis*, the mature phase of *Cercaria bessiae*.

**Ladreyt F.** - Sur un Epithélioma de la muqueuse palatine chez une murène avec quelques observations sur l'évolution des basales, des membranes cellulaires et du stroma dans certains cancers. Absence de glande venimeuse palatine chez la murène [*De epithelioma mucosae palati in « Muraena helena » cum observationibus quoad evolutionem basalium, membranarum cellularium et stromatis in tumoribus quibusdam. Absentia glandulae palatinae veneni, in « M. helena »*]. 3 fig., Bull. Inst. Océanogr., 677, 1-16. Monaco (Princ.) (1935). **b - 693**

Description d'une tumeur développée dans le tiers moyen de la muqueuse palatine observée chez une murène et qui a produit des lésions tissulaires très étendues; ontogénèse de la tumeur. Quelques considérations sur la sécrétion du venin dans la région palatine de la murène dans lesquelles l'A. affirme que la fonction venimeuse est en quelque sorte diffuse et généralisée à toute la muqueuse palatine, et pas due à une glande spéciale come on l'avait prétendu.

**Lebour M. V.** - *Hemiurus communis* in *Acartia* [*« Hemiurus communis » in genere « Acartia »*]. Journ. Mar. Biol. Assoc., XX, 2, 371-372. Plymouth (1935). **b - 694**

Former records of Trematods found in Copepods. Some theories on the life-cycle of *Acartia clausi*. Some common Fish Trematodes.

**Leigh-Sharpe H.** - A List of British Invertebrates with their Characteristic Parasitic and Commensal *Copepoda* [*Index Invertebratorum ad Britanniam pertinentium cum eorum peculiaribus parasitis et commensalibus Copepodis*]. Journ. Mar. Biol. Assoc., XX, 1, 47-48. Plymouth (1935). **b - 695**

*Porifera, Echinodermata, Annulata, Crustacea, Mollusca, Urochordata.*

**Leigh-Sharpe H.** - *Epibrachiella impudica* (Nordmann) (*Copepoda*) - 8 figs., Parasitol., XXVII, 1, 101-106. London (1935). **b - 696**

Two adult females bearing males have been found on the gills of *Trigla cuculus* at Plymouth. Record. Description. Note on generic diagnosis. Note on specific variation.

**Leigh-Sharpe H.** - Some New and Rare *Lernaeidae* (*Copepoda*) *from Plymouth* [*Aliquae Lernaeidae novae seu rarae ex* Plymouth]. 2 figs., Parasitol., XXVII, 1, 107-110. London (1935). **b - 697**

The following *Lernaeidae* are described in the present paper: *Haemobaphoides ambiguus, Saucissona* n. gen., *S. sanciatonis* n. gen. n. sp., *Lernaeocera mulli* n. sp.

**Leigh-Sharpe H.** - *Anchistrotos laqueus* n. sp. a parasitic Copepod of *Serranus cabrilla* [« *A. laqueus* » *n. sp. copepodus parasiticus in* « *S. cabrilla* »]. 3 figs., Parasitol., XXVII, 2, 266-269. London (1935). **b - 698**

Habitat and material. Body. Appendages.

**Leigh-Sharpe H.** - Two Copepods (*Lernaeenicus*) parasitic on *Clupea* [*Copepoda duo* (*Lernaeenicus*) *parasitica in* « *Clupea* »]. 8 figs., Parasitol., XXVII, 2, 270-275. London (1935). **b - 699**

*Lernaeenicus spratta* (Sowerby) and *L. encrasicholi* (Turton 1807) parasitic on respectively *Clupea spratta* and *Clupea* spp. Habitats and material. Dimensions. Body. Appendages.

**Lipska I.** - Les colibacilles et les coliphages chez les animaux invertébrés marins [*De colibacillis atque coliphagis in animalibus marinis invertebratis*]. 2 tabl., Bull. Inst. Océanogr., 675, 1-8. Monaco (Princ.) (1934). **b - 700**

Résultats de 39 analyses du contenu intestinal des animaux marins qui ont été nourris de différente façon, et disséqués avec toutes les précautions nécessaires dans le but d'examiner l'influence de la nourriture chez les animaux invertébrés marins où on pouvait penser que l'eau de mer, comme milieu ambiant, pourrait être un facteur annulant les différences de leurs microflores bactériennes. Les colibacilles furent isolés huit fois.

**Manter H. W.** - Some Digenetic Trematodes from Deepwater Fish of Tortugas, Florida [*Trematodes quidam digenetici ex piscibus in aqua peralta viventibus apud* Tortugas *in* (Florida)]. 15 pl., tabls., Carnegie Inst. Washington Publ., 435, 261-345. Washington (1934). **b - 701**

Description of 49 spp. of Trematodes, most of them new ones, from 80 spp. of marine fish from 40 to 582 fathoms deep. Depth distributions of 22 spp. of Trematodes shown in tables.

**Manter H. W.** - The Structure and Taxonomic Position of *Megasolena estrix* Linton 1910 (Trematoda) [*De structura et positione taxonomica speciei* « *M. estrix* »]. 7 fig., Parasitol., XXVII, 3, 431-439. London (1935). **b - 702**

Description of *Megasolena* and *Hapladena*, parasites from *Kyphosus* and *Acanthurus*, which possess the characters of fundamental taxonomic value for a new subfamily, *Megasoleninae*.

**Markowski S.** - Ueber den Entwicklungszyklus von *Bothriocephalus scorpii* (Müller 1776) [*De accretionis cyclo speciei* « *B. scorpii* »]. 4 Tab., 5 Abb., 1 Taf. a. T., Bull. Int. Acad. Polon. Sc. & Lettr., Sér. B, Sc. Mat. & Nat., 1-2, B II, 1-17. Cracovie (1935). **b - 703**

En étudiant expérimentalement l'évolution de *Bothriocephalus scorpii*, parasite du *Rhombus maximus* L., provenant des eaux polonaises de la Baltique l'A. a trouvé deux stades larvaires: le procercoïde dans la cavité abdominale de l'*Eurytemora hirundo* Giesbrecht, ainsi que le plérocercoïde dans le tube digestif du *Gobius minutus* Pallas.

**Markowski S.** - Die parasitischen Würmer von *Gobius minutus* Pall. des polnischen Balticums [*De vermibus parasitis in* « *Gobius minutus* » *ad Mare Balticum Polonum pertinente*]. 1 Taf., 2 Tab., Bull. Int. Acad. Polon. Sc. & Lettres, Cl. Sc. Math. & Nat., 6/7, B II, 251-260. Cracovie (1935). **b - 704**

Ergebnisse einer Forschung über die Infizierung von *G. minutus* in den polnischen Küstengewässern, an Hand der Analyse und Untersuchung von dem Verdauungskanal und der Leibeshöhle, sowie der oberflächlichen Muskeln und der Kiemen, ausgeführt bei 520 Exemplaren von *G. minutus*. Diagnose der vom Vf. festgestellten Würmer (*Trematoda, Cestoidea, Nematoda* und *Acanthocephala*), von denen die Form, *Asymphylodora demeli* sp. n., als neu zu betrachten ist.

**Mathias P.** - Sur quelques Trématodes de Poissons marins de la région de Banyuls [*Trematoda in Piscibus marinis apud* Banyuls]. Arch. Zool. Exp. et Gén., LXXV, 33, 567-581. Paris (1934). **b - 705**

Six espèces de Trématodes sont decrites vivant chez les poissons suivants: *Serranus cabrilla* L., *Lophius piscatorius* L., *Blennius ocellaris* L., *Trigla aspera* Cuv. Val., *Conger vulgaris* Cuv., *Uranoscopus scaber* L., *Scorpaena porcus* L.

**Mathias P.** - Cycle évolutif d'un Trématode Holostomide (*Cyathocotyle Gravier* n. sp.) [*De cyclo accretionis speciei* « *Cyathocotyle Gravier* »]. C. R. Acad. Sc., CC, 21, 1786-1788. Paris (1935). **b - 706**

L'œuf pondu dans l'eau, donne un miracidium qui penètre dans une *Bithynia tentaculata* L. y formant des sporocytes et puis les cercaires. Les cercaires mûres sortent du Mollusque et infectent des Poissons tels que *Gobius* en y formant des kystes qui sont puis absorbés par un oiseau aquatique et évolués en adultes qui pondent ses œufs dans l'intestin de l'oiseau, laquel les fait sortir dans l'eau. Ainsi le cycle recommence. (L. S.).

**Montpellier J. & Dieuzeide R.** - Tumeurs Parasitaires des Labridés [*De tumoribus parasitariis in Labridis*]. 7 fig., Stat. Aquicult. et Pêche Castiglione (1933), 2, 85-91. Alger (1935). **b - 707**

Examen histologique des tumeurs, qui sont à peu près exclusivement constituées par la colonie parasitaire.

**Nouvel H.** - *Dicyema Schulzianum* (Ed. van Ben.). Description et étude cytologique [« *D. Schulzianum* ». *Descriptio et studium cytologicum*]. 9 fig., Bull. Inst. Océanogr., 664, 1-11. Monaco (1935). **b - 708**

*D. Schulzianum*, que l'A. n'a jamais rencontré chez aucun autre céphalopode, semble être le seul Dicyémide parasite de *Sepia elegans* dans lequel on le trouve de façon constante.

**Nouvel H. & L.** - Sur deux Crevettes parasitées par un *Nectonema*. Evolution des parasites. Influence sur l'hôte [*Agitur de cancris duobus qui sustinent parasitum quiddam* « *Nectonema* ». *Quaestio de evolutione parasitorum, eorumque influentia in hospitem*]. 2 fig., 1 tab., Bull. Soc. Zool. France, LIX, 516-521. Paris (1935). **b - 709**

Influence du parasite *Nectonema* dans le coelome de *Leander* ♀. Compression des organes internes, arrêt du développement des produits génitaux.

**Nybelin O.** - Untersuchungen über den bei Fischen krankheits-erregenden Spaltpilz *Vibrio anguillarum* [*Investigationes in speciem* « *V. anguil-*

*larum » piscibus morbiferam*]. (In Dtsch., Schwed. Rés.). 2 Tab., 2 graph., Fig., Medd. fr. Stat. unders. – & förs.– Anst. f. sötvattensfisk., 8, 1-62. Stockholm (1935). **b - 710**

Bakteriologische Untersuchung der gefundenen Vibrionen. Beziehungen von *Vibrio anguillarum* zum Wirt. Allgemeine Schlussfolgerungen: In welcher Ausdehnung ist die Agglutinations-methode als diagnostisches Hilfsmittel verwendbar? Ist mit einer erworbenen Immunität bei Fischen nach überstandener Infektion zu rechnen? Ist eine Schutzimpfung gegen Bakterieninfektionen bei Fischen denkbar oder möglich?

**Nybelin O.** - En mystisk ålsjukdom i våra sötvatten [*Morbus arcanus in aquis nostris dulcibus*]. Ny Svensk Fiskeritidskr., 18, 205-208. Göteborg (1934). **b - 711**

**Okada Y. K. & Miyashita Y.** - Sacculinization in *Eriocheir japonicus* de Haan, with Remarks on the Occurrence of Complete Sex-Reversal in Parasitized Male Crabs [*Quaestio de sacculinisatione in specie « E. japonicus » cum observationibus quoad phenomenum totius reversibilitatis sexualis in cancris masculis parasitis infestis*]. 2 pls., Mem. Coll. Sc., Imp. Univ., Ser. B, X, 3, 169-208. Kyoto (1935). **b - 712**

The Authors describe the transformations of the grapsoid crab *E. japonicus* when parasitized by a *Sacculina* (*S. gregarina* n. sp.); the males become then intersexual in varying degrees. The changes which occur in such cases are dealt with in the paper.

**Palombi A.** - Gli stadi larvali dei Trematodi del Golfo di Napoli. I. Contributo allo studio della morfologia, biologia e sistematica delle Cercarie marine [*Stadia larvalia ad Trematodes Sinus Neapolitani pertinentes. Contributio in morphologiam, biologiam et systematicam Cercariarum marinarum*]. Fig. 34. Pubbl. Staz. Zool. Napoli, XIV, 1, 51-94. Napoli (1934). **b - 713**

Lavoro illustrativo degli stadi larvali dei Trematodi viventi in alcuni Molluschi e Crostacei del Golfo di Napoli. Elenco completo delle cercarie e delle specie ospiti. Vennero identificate quattro nuove cercarie: *Metacercaria* (*Gymnophallus*) *megacoela*, *M.* (*Himasthala*) *ambigua*, *Cercaria ophicer* e *Metacercaria acherusiae*; le altre specie descritte, o sono nuove per l'ospite o per la località.

**Patten R.** - The Life History of *Merocystis Kathae* in the Whelk, *Buccinum undatum* [*Curriculum vitae speciei « M. Kathae » in specie « B. undatum »*]. 56 figs. on 5 pls., 10 textfigs., Parasitol., XXVII, 3, 399-430. London (1935). **b - 714**

Introductory remarks on preceding studies. Material and methods. Periodicity. Life history. Nuclear divisions in *Merocystis*. Summary and references.

**Pérez C.** - Notes sur les Epicarides et les Rhizocéphales des côtes de France. VIII. Infection simultanée des Pagures par un Athelges et un Rhizocéphale [*De Epicarideis et Rhizocephalis ad litora Gallica pertinentibus. Duo parasiti in Paguridis*]. Arch. Zool. Exp. et Gén., LXXV, 541-565. Paris (1934). **b - 715**

Sur l'*Eupagurus cuanensis* l'A. a trouvé presque toujours les deux parasites ensemble. Influence de l'action parasitaire d'*Athelges* sur le Rhizocéphale *Clorogaster*. Présence de deux espèces d'*Athelges*.

**Pérez C.** - Sur une *Eriphia spinifrons* sacculinée [*De « E. spinifrons » sacculinis infesta*]. 2 fig., Stat. Aquicult. et Pêche Castiglione, 51-58. Alger (1934). **b - 716**

Etude sur la spécificité du parasitisme des Sacculinés et leur influence sur l'hôte.

**Pérez C.** - Non-spécifité du parasitisme du *Nectonema Agile* Verril [« *N. agile* ». *Quaestio de parasitismo non- specifico*]. 2 fig., Bull. Soc. Zool. France, LIX, 522-528. Paris (1935). **b - 717**

La plupart des espèces des Crustacés Décapodes sont infestés par ce parasite, qui n'a pas de strictes exigences de spécificité pour ses hôtes, et qui d'ailleurs ne semble pas les gêner trop.

Vie et époques d'infection chez *Nectonema*.

**Pérez C.** - Sort des racines du *Peltogaster* après la chute du sac viscéral [*De radicibus in « Peltogaster » post casum sacculi visceralis*]. 1 fig., C. R. Acad. Sc., CCI, 4, 286-288. Paris (1935). **b - 718**

Les différentes phases du processus de flétrissement du sac viscéral dans *Peltogaster*, parasite des Pagures; Comparaison avec le cas extrême présenté par *Chlorogaster*.

**Pettersen H. E.** - Preliminary Report of the Disease of the Eelgrass [*Relatio prior de morbo speciei « Zostera marina »*]. 4 figs., Rep. Danish Biol. Stat., XL, 3-8. Copenhagen (1935). **b - 719**

Survey of the results obtained by the author during an investigation carried out in August, 1933, in order to throw light on the disease that has appeared in the eelgrass of the Danish waters during recent times, and report on such knowledge of the cause of disease as has been acquired by investigators in other countries.

**Raabe Henryk** - Un *Microsporidium* dans des *Lymphocystis* chez les Plies [*Agitur de Microsporidio in Lymphocystis in Pleuronectidis*]. 4 fig., Bull. Inst. Océanogr., 665, 1-11. Monaco (1935). **b - 720**

Les Plies, dans la Baltique, la Mer du Nord et sur les côtes de Mourman de l'Océan, sont souvent atteintes d'une maladie qui se manifeste par des tumeurs sphériques ou ovales sur la peau. Ces tumeurs sont remplies par des kystes. L'A. se borne dans le présent rapport à présenter les stades évolutifs et quelques particularités du parasite qui provoque la création de ces kystes, bien connus sous le nom de *Lymphocystis*.

**Raabe Zdzislaw** - *Rhynchophrya cristallina* g. n., sp. n., nouvelle forme d'Infusoire de la famille des *Sphaeonophryidae* Chatton et Lwoff [« *R. cristallina* » *g. n., sp. n., forma Infusorii nova ad familiam « Sphaenophryidae » pertinens*]. 5 fig., Bull. Inst. Océanogr., 676, 1-6. Monaco (1935). **b - 721**

Description détaillée et multiplication de cet Infusoire, trouvé sur les branchies des Moules *Mytilus edulis* L.

**Ramult M.** - Observations on the Embryonic and Larval Development in *Sacculina* (*Rhizocephala*) in Changed Osmotic Conditions of Medium [*Observationes de progressione larvali et post embryonali in « Sacculina » cum osmoticae condiciones medio ambiente modificantur*]. 25 figs., 1 table. Bull. Int. Acad. Polon. Sc. & Lettres, Cl. Sc. Mathém. & Nat., 3/5, B II, 87-109. Cracovie (1935). **b - 722**

Results of investigations on *Sacculina carcini*, a common parasite of the crab, *Carcinus maenas*, especially concerned with 1) the extrusion of the eggs of *Sacculina* into the mantle cavity and development in the normal sea

water, 2) their development in hypotonic and hypertonic sea-water, 3) the cleavage of *S.* eggs in sodium chloride solution, and 4) the metamorphosis of *S.* larvae in a changed osmotic medium. (L. S.).

**Rees F. G.** - *Cercaria patellae* Lebour, 1911, and its Effect on the digestive Gland and Gonads of *Patella vulgata* [« *C. patellae* » *eiusque effectus in glandulam digestionis atque etiam in gonades speciei* « *P. vulgata* »]. 4 pls., Proc. zool. Soc. London, 1, 45-53. London (1934). **b - 723**

Analysis of the process of destruction in the digestive gland and gonads of *Patella vulgata.* Its resistance.

**Renn C. E.** - Eel-Grass Situation is Explained [*Condiciones speciei* « *Zostera marina* » *explicantur*]. Fish. Gaz., LII, 3, 29. New York (1935). **b - 724**

Summary of a plan outlined by the author for combatting the parasite, which provokes the disappearance of the eel-grass along the Atlantic seaboard.

**Renn C. E.** - A Mycetozoan Parasite of *Zostera marina* [*Agitur de* « *Mycetozoa* » *parasito in specie* « *Z. marina* »]. Nature, CXXXV, 3414, 544-545. London (1935). **b - 725**

Evidence that a slime-mould (similar to *Labyrinthula*) is responsible for the wasting disease of the Eel-grass, *Zostera marina,* along the Mediterranean Atlantic coast, is adduced by the A. A Fungus, *Ophiobolus,* has also been suggested as the causative agent, but the A. finds that it is not always associated with the disease (Nature's abstract on page 549).

**Rioja E.** - Sobre un copépodo parásito de *Sabella pavonina* Sav., hallado en la ria de Pontevedra [*De copepodo quodam* « *Sabelliphilus Sarsi* », *parasito in specie* « *S. pavonina* » *in flumine* Pontevedra]. 16 figs, Bol. Soc. Españ. Hist. Natur., XXXV, 5, 239-244. Madrid (1935). **b - 726**

Breve descripción de la especie *S. Sarsi* var. *branchialis* (Della Valle), fijada sobre los radios branquiales que forman el penacho respiratorio del anélido, *Sabella pavonina.*

**Rotschild M.** - The Trematode Parasites of *Turritella communis* Lmk. from Plymouth and Naples [*Trematodes parasiti in specie* « *T. communis* » *a* Plymouth *atque Neapoli provenientes*]. 2 tabl., 22 figs., Parasitol., XXVII, 2, 152-170. London (1935). **b - 727**

Detailed descriptions, measurements in microns, reproduction and behaviour of the *Cercariae* with the *Rhodometopa* group, identification table of 7 spp of *Cercaria,* 5 of which are new.

**Schäperclaus W.** - Fischkrankheiten [*De morbis piscium*]. 16 Taf., 72 S., Wenzel Verlag. Braunschweig (1935). **b - 728**

**Schnakenbeck W.** - Parasiten der japanischen Wollhandkrabbe [*De parasitis in specie* « *Eriocheir japonicus* »]. Fischmarkt, III, 6, 162-163. Cuxhaven (1935). **b - 729**

An Hand einer Arbeit von Y. K. Okada and Y. Miyaschita « Sacculinization in *Eriocheir japonicus* de Haan, with Remarks on the Occurrence of complete sex-reversal in parasitized male-crabs » (Mem. Coll. Sc., Kyoto Imp. Univ., Ser. B, X, 3, 1935) bespricht Vf. die Möglichkeit die chinesische Wollhandkrabbe mit dem Parasiten der Japanischen Wollhandkrabbe biologisch zu bekämpfen.

**Schnakenbeck W.** - Fadenwürmer bei Seefischen [*Nematodes in piscibus marinis*]. Fischmarkt, 5, 132-134. Cuxhaven (1934). **b - 730**

Einige Betrachtungen über die Bedeutung des Vorkommens von Fadenwürmern im Darme und ausserhalb des Darmes der Seefische; vollkommene Unschädlichkeit derselben für den Menschen; die antiästhetische Seite des Vorkommens der Fadenwürmer in dem Leibe der Fische; Unsicherheit unserer Kenntnisse über das Vorkommen der Fadenwürmer in Fischen, Ursachen des Befalles der Fische mit denselben, Wirtwechsel usw., mit besonderer Berücksichtigung der Schmarotzern von dem Eishai (*Laemargus borealis*) und der spitzschnäuzigen Roche (*Raja oxyrhynchus*).

**Schuurmans Stekhoven F. H. Jr.** - Copepoda parasitica from the Belgian Coast [*Copepoda parasitica a litoribus Belgicis provenientia*]. 5 Pls., Bull. Mus. R. Hist. Nat. Belgique, XI, 7, 1-13. Bruxelles (1935). **b - 731**

Classification of a small collection of parasitic Copepoda collected in the North Sea: *Acanthochondria soleae* on *Pleuronectes flesus* and *Onos mustela,* new host; *Caligus rapax, C. diaphanus*; *Lepeophtheirus pectoralis*; *Lernaeocera branchialis,* L. *minuta, L. lusci* with all the different stages and their description, *L. brevicollis*; *Lernaeeniscus sprattae.*

**Skrjabin K. I. & Andreewa N. K.** - Un nouveau Nématode: *Crassicauda giliakiana* n. sp. trouvé dans les reins de *Delphinoptera leucos* [« *C. giliakiana* » *in renis reperta speciei* « *D. leucos* »]. 13 fig., Ann. Parasitol. Humaine et Comp., XII, 1, 15-28. Paris (1934). **b - 732**

**Smith H. G.** - On the Presence of Algae in certain *Ascidiacea* [*De Algis in Ascidiaceis*]. Ann. & Mag. Nat. Hist., 10th Ser., XV, 615-626. London (1935). **b - 733**

**Souché G.** - Sur de nouveaux cas de parasitisme chez les Gadidés [*Parasitismi casus novi in Gadidis*]. Bull. Soc. Centr. d'Aquicult. et de Pêche, XLII, 34-40. Paris (1935). **b - 734**

**Spärck R.** - On the Occurrence of *Crepidula fornicata* (L.) in the Limfjord [*De specie* « *C. fornicata* » *in* Limfiord]. Rep. Danish Biol. Stat., XL, 43-44. Copenhagen (1935). **b - 735**

Brief account of the frequency of *C. fornicata L.,* which is extremely hurtful to the oyster fishery, in European and, especially Danish waters i. e. in the Limfjord.

**Stephensen K.** - Some Endoparasitic Copepods found in Echinids [*Copepoda quaedam endoparasitica in Echinidis reperta*]. 3 fig. Vidensk. Medd., XCVIII, 223-228. København (1934-35). **b - 736**

Description of 3 species found by Dr. Mortensen, one of which is new, *Calvocheres oblongus* n. sp.

**Timon-David** - Sur les *Wedlia* parasites de l'estomac du thon (Trématodes, *Didymozoonidae*) [*De genere* « *Wedlia* » *parasito in stomacho speciei* « *Thynnus thynnus* »]. 5 fig., Bull. Inst. Océanogr., 670, 1-11. Monaco (1935). **b - 737**

L'A. a trouvé, enkystés dans la paroi de l'estomac de *Thynnus thynnus* L. un grand nombre de parasites appartenant au genre *Wedlia* Cobbold. L'A. donne l'historique de ce genre, la description de la forme méditerranéenne de *Wedlia* aff. *orientalis* Yamaguti et une description des kystes à *Wedlia.*

**Yamaguti Satyû** - Studies on the Helminth Fauna of Japan. Part 8. *Acanthocephala*, I [*Fauna helminthologica Japonica. Acanthocephala*]. 30 figs., Jap. Journ. Zool. Trans., VI, 6, 247-278. Tokyo (1935). **b - 738**

22 species are described and figured in this paper of which 1 new family, 3 new genera, and 11 new species. Some of the species studied have been found in marine Fishes.

**Watanabe M.** - Studies on *Paragonimus westermani* (I. Report). Especially on the Encysted Larvae in *Eriocheir japonicus*. [*Studia speciei « P. westermani ». Agitur particulatim de larvis incystatis in specie « E. japonicus »*]. (In Jap.). 24 figs., Okayama Ig. Z., XLVI, 7, 1514-1532. Okayama (1934). **b - 739**

Life history of the larvae of *P. westermani*, the cysts of which after being formed in the body of the crab, do not come out by themselves, passively awaiting to be taken in by the final host. After the death of the host, the cysts may live for 5 or 6 weeks, remaining in the body of the host, but die after 10-30 days, if left free in water.

**Wilson C. B.** - Studies of Parasitic Copepods [*De Copepodis parasitis*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 38. Woods Hole, Mass. (1935). **b - 740**

Account of a work upon two collections of parasitic Copepods, one made by the Johnson-Smithsonian Expedition to the Porto Rican Deep, and the other by Dr. H. W. Manter at the marine station of the Carnegie Institution in the Dry Tortugas.

**Woolcock V.** - Digenetic Trematodes from some Australian Fishes [*Trematodes digenetici in piscibus Australiensibus*]. 6 figs., 2 pls., Parasitol., XXVII, 3, 309-331. London (1935). **b - 741**

Systematic and morphological study of seven new forms of entozoic trematodes of Australian fishes: *Helicometra tenuifolia, H. bassensis, Dactylostomum gracile, Parahemiurus australis, Erilepturus tiegsi, Probolitrema antarcticus, P. philippi, Otodistomum pristiophori.*

**Zobell C. E. & Wells N. A.** - An Infectious Dermatitis of Certain Marine Fishes [*Infectio quaedam nova in epidermide aliquorum piscium marinorum*]. Journ. Infectious Diseases, LV, November-December, 299-305. Chicago (1934). **b - 742**

The pathology of a highly fatal ulcerous dermatitis of *Fundulus parvipinnis* and other marine Fishes is described. The disease is infectious, *A. ichthyodermis* being the etiologic agent. A study of the temperature requirements of the pathogen and its host has been made. The hyperthermic treatment offers a satisfactory means of controlling the disease in aquariums.

**An.** - Oyster Parasite Threatens Industry in Apalachicola Bay [*Parasiti impendunt in Ostrearum industriam in baja* Apalachicola]. Fish & Oyst. Rep., XVI, 3, 10-11. Tampa, Fla. (1935). **b - 743**

Brief summary of investigations carried out on the parasitic natural ennemy of the oyster known as the wafer or so called « leech », being a turbellarian flatworm (*Stylochus inimicus*) and which has become a serious menace to the continued natural production und private cultivation of the oyster in Apalachicola Bay. Results of a study of the distribution and propagation of the parasite, which show that the high salinity of the water in the region investigated is the principal factor responsible for the rapid growth and spread of the wafer parasite in this region.

**An.** - Oyster Pest Investigation [*Investigationes in Ostrearum morbos*]. Fish & Oyst. Rep., XVI, 5, 15. Tampa, Fla. (1935). **b - 744**

Some information on the oyster pest investigation carried on by the Bureau of Fisheries; the three major problems to be dealt with under plans prepared by the Bureau.

**An.** - Protozoan Parasite of Oyster Associated with Mortalities in Virginia and Louisiana [*Agitur de protozoo quodam parasito in ostrea pro mortalitate Ostrearum in* Virginia *et* Louisiana]. Fish & Oyst. Rep., XVI, 7, 10-11. Tampa, Fla. (1935). **b - 745**

Results of cythological studies on Oysters from the Mobjack Bay, Va., and Terrebone Parrish, La., during the winters of 1929-30 and 1932-33 showing an unusual mortality, due to retarded and abnormal shell growth and an unusually weak condition of the muscle with inability to maintain closure of the shell during transplantation and shipping operations. The studies show that those Oysters were heavily infested with a parasitic protozoan which tentatively has been identified as one of the *Haplosporida.*

**An.** - Progress Made in Oyster Pest Studies [*De progressibus in Ostrearum morbos studendos*]. Fish & Oyst. Rep., XVI, 10, 6-7. Tampa, Fla. (1935). **b - 746**

The Bureau of Fisheries has succeeded in devising traps and methods for ridding the oyster beds principally from starfish, oyster drill and oyster leech.

# PLANCTON ET BENTHOS

## Zooplancton et Phytoplancton - Distributio et valor.

**Bigelow H. B. & Sears M.** - Zoöplankton Studies [*De Zooplancton*]. Woods Hole Oceanogr. Instit., Rep. 1934, 19. Woods Hole, Mass.(1935). **b - 747**

Summary of (I) the studies of the zoöplankton of the waters of the continental shelf, Cape Cod to Chesapeake Bay; (II) the study of Siphonophores collected on the « Thor » Expedition, 1908 and 1910, to the Mediterranean, and (III) the study of Siphonophores collected on the cruise of the « Dana » around the world, 1928-1930.

**Bogorov V. G.** - La biomasse du plancton [*De biomassa planctonica*]. (En russe, rés. angl.). 8 fig., 1 pl. h. t., Bull. Vses. Naoutchno-Issl. Inst. Morsk. Rybn. Choz. i Okeanogr., 1, 1-18. Moskva (1934).

(—) Voir aussi, ibid., 2, 26-29. (1934) **b - 748**

**Bogorov V. G. & Preobragenskaja E. N.** - Caractéristique du plancton de la Mer de Barents. II. *Copepoda* [*Peculiaritates planctonicae Maris Barentsii. II. Copepoda*]. (En russe, rés. angl.). 8 fig., Bull. Vses. Naoutchno-Issl. Inst. Morsk. Rybn. Choz. i Okeanogr., 2, 1-25. Moskva (1934). **b - 749**

**Braarud Trygve** - The « Øst » Expedition to the Denmark Strait 1929. II. The Phytoplankton and its Conditions of Growth (including some Qualitative Data from the Arctic in 1930) [*Agitur de navigatione navis « Øst » in fretum Danicum, A. 1929. II. De phytoplancton eiusque condicionibus quoad accretionem. (Includuntur data qualitativa pro Arctico, A. 1930)*]. 38 figs., 29 tabl., Hvalråd. Skr. Scient. Res. Mar. Biol. Research, 10, 1-173. Oslo (1935). **b - 750**

A consideration of the factors of Phytoplankton production in the sea: direct and indirect factors of productivity. The observations and their interpretation: metods and material: observations in the Norvegian Sea between Iceland and Norway, surface observations from Cape North to Angmagsalik, June 1929 and sub-surface observations. A discussion of the conditions of plant production in the Arctic, Atlantic and Polar waters. Remarks on the distribution and taxonomy of the population. Diatoms (*Chaetoceros, Amphiprora, Nitzschia, Navicula, Thalassiosira*); Flagellates (*Ceratium, Dinophysis, Exuviaella, Gonyaulax, Peridinium, Phalacroma, Corbicula*); Ciliates (*Laboea, Salpingella*).

**Dakin W. J. & Colefox A.** - The Marine Plankton of the Coastal Waters of New South Wales [*De plancton marino aquarum litorearum in regione* South Wales]. Proc. Linn. Soc. N. S. Wales, 58, parts 3-4, 186-222. Sydney (1935). **b - 751**

Similitary between the planktons of Northern and Southern waters with regard to the seasonal cycle: Two periods of maxima production.

**Fisch C. J.** - Zoöplankton of the Gulf of Maine [*De zooplancton in Sinu* Maine]. Woods Hole Oceanogr. Instit., Rep. 1934, 21. Woods Hole, Mass. (1935). **b - 752**

Summary of the results of field investigations, especially concerned with (I) the zoöplankton population, the relative numerical importance of the ecological groups and a consideration of each group, and (II) the biology of zoöplankton (biology of *Oithona similis* and *Microsetella norvegica*).

**Graham H. W.** - The Distribution of the Plancton of the Pacific as related to some physical and chemical Conditions of the Water [*De planctonica per Pacificum distributione quoad quasdam condiciones physicas atque chemicas aquae*]. Proc. 5 th Pacific Scient. Congr. Victoria and Vancouver B. C. Canada 1933, III, 2035-2043. Toronto & London (1934). **b - 753**

**Gran H. H.** - Plankton Committee 1934 [*Comitatus pro plancton studendo A. 1934*]. Rapp. Pr.-Verb. Cons. Expl. Mer., XCIV, 2ème partie, Rapp. administr. (1934-1935), 71-76. Copenhague (1935). **b - 754**

Belgium, Denmark, England, France, Germany, Holland, Irish Free State, Latvia, Norway, Poland, Portugal, Scotland, Spain, Sweden. Summary of Plankton investigations on 1934-cruises.

**Gran H. H. & Braarud Trygve** - A Quantitative Study of the Phytoplankton in the Bay of Fundy and the Gulf of Maine (including Observations on Hydrography, Chemistry and Turbidity) [*Studium quantitativum phytoplanctonicum in Baja* Fundy *et in Sinu* Maine. (*Includuntur observationes quoad hydrographiam, chemiam atque turbiditatem*)]. Num. tabl., Journ. Biol. Bd Canada, I, 5, 279-467. Toronto (1935). **b - 755**

This work is the results of the studies undertaken in 1931 in order to examine the effect that the projected Cooper dam might have on the general productivity of the Bay of Fundy, with special regard to phytoplancton production. Hydrographic characteristics of the region. Results of the chemical work. Light conditions. The phytoplankton. Remarks on the species, 11 new forms. The correlation of the phytoplankton with the physical and chemical conditions. General discussion of the conditions of production.

**Hada Yoshine** - On the Pelagic *Ciliata, Tintinnoinea*, from the East Indies with Considerations on the Character of the Plankton in the Seas [*De Ciliatis Tintinnoineis pelagicis ex Indiis orientalibus cum observationibus quoad planctonicas peculiaritates in maribus*]. (In Jap., Engl. Rés.). 3 figs, 2 tabl., Bull. Jap. Soc. Scient. Fish., IV, 4, 242-252. Tokyo (1935). **b - 756**

Description of 39 species of *Tintinnoinea*, two of which are new: *Poroecus rotundatus* and *Craterella retusa*. The distribution of plankton indicates the inflow of surface water from the Java Sea into the Indian Ocean.

**Hanzawa Shôshirô** - Diatom (*Ethmodiscus*) Ooze Obtained from the Southwestern North Pacific Ocean [*Diatomaea «Ethmodiscus» a zona proveniens meridionali occidentali Oceani Pacifici Septentrionalis*]. 2 pl., Rec. Oceanogr. Works Japan, VII, 1, 37-44. Tokyo (1935). **b - 757**

Detailed description of the samples of Diatom Ooze that are all similar in constituents and represent a distinct kind quite different from Diatom Ooze found in high latitudes. They are principally composed of fragments of extremely delicate frustules of *Ethmodiscus*, a diatom of unusually large size.

**Hardy A. C. & Gunther E. R.** - The Plankton of the South Georgia Whaling Grounds and Adjacents Waters 1926-27 [*De plancton in fundis marinis ad balaenam piscandam navigatis, in Georgia Merid. maribusque propinquis*]. 193 figs., & maps., Discovery Rep., XI, 1-456. Univ. Press. Cambridge (1935). **b - 758**

**Harvey H. W., Cooper L. H. N., Lebour M. V. & Russell F. S.** - Plankton Production and its Control [*De productione planctonica eiusque inspectione*]. 16 figs., 2 tabl., Journ. Mar. Biol. Assoc., XX, 2, 407-441. Plymouth (1935). **b - 759**

Phytoplankton and zooplankton organisms and their phosphorous contents based on samples from vertical hauls about 5 miles S. W. of Plymouth Breakwater in circa 50 m. depth of water. The Diatom population in different seasons. It is considered that much of the organic phosphorus compounds in Diatoms may pass undigested through animals and remain in solution in the sea until regeneration to phosphate takes place in late summer.

**Issel R.** - Ciclo annuale del microplancton di superficie nel Golfo di Napoli (Golfo interno) [*Agitur de cyclo annuo microplantonico ad superficiem in Sinu Neapolitano*]. 2 fig., 6 tav., Pubbl. Staz. Zool. Napoli, XIV, 1, 1-50. Napoli (1934). **b - 760**

Osservazioni sul ciclo annuale di circa 190 specie del microplancton, sistematicamente raccolte per un triennio nel Golfo interno di Napoli, e confronto delle varie fasi del ciclo con quelle caratteristiche di altre stazioni costiere del Tirreno.

**Issel R.** - I fattori che regolano la distribuzione del plancton nelle acque di Venezia e della Laguna veneta [*Agitur de factoribus qui moderantur distributionem planctonicam Venetiis et in lacuna veneta*]. Boll. Zool., VI, 1/3, 191-193. Napoli (1935). **b - 761**

Le condizioni della popolazione planctonica nelle acque dei porti-canali che mettono in comunicazione la Laguna col mare aperto sono sostanzialmente le stesse dell'Alto Adriatico. Addentrandosi nella Laguna si notano differenze evidenti nei valori termici, mentre l'acqua può dirsi normale nei riguardi biologici dal punto di vista della concentrazione ionica e dell'ambiente respiratorio. Il complesso planctonico si va riducendo e trasformando verso le parti più interne della laguna mentre si va sviluppando una fauna natante a facies salmastra, costituita soprattutto da Rotiferi e Copepodi. Il plancton vero e proprio si estingue in grandissima parte nella zona dei canali.

**Issel R.** - Plankton [*De plancton*]. Rapp. Pr.-Verb. Cons. Expl. Scient. Méditerranée, IX, (n. sér.), 85-94. Paris (1935). **b - 762**

Apparition de formes nouvelles dans la Méditerranée: *Phytoplancton, Copepoda, Cladocera, Amphipoda.* Contribution à la connaissance des cycles annuels du plankton de la Méditerranée. Distribution verticale et horizontale du plankton. Espèces particulières. Bibl.

**Iwanow A. W.** - Ueber die Erforschung des Benthos an den Küsten des Ussuri-Landes und der Tatarischen Meeresstrasse im Jahre 1931 [*Studium de benthon prope litora regionis* Ussurijskaja *et freti* Tatarskij, *A. 1931*]. (In Russ., Dtsch. Rés.). 2 tab., Expl. Mers URSS, 19, 93-113. Léningrad (1933). **b - 763**

Vorläufige allgemeine Bemerkungen über die verschiedenen Zonen des Benthos, Angabe der Arten und Tiefen, Vergleich unter den Zonen und Ursachen der verschiedenen Verteilung.

**Jespersen P.** - Quantitative Investigations on the Distribution of Macroplankton in Different Oceanic Regions [*Investigationes quantitativae in distributionem macroplanctonicam in Oceani diversis regionibus*]. 28 figs., charts, Carlsberg Found. Oceanogr. Exped. round the world 1928-30, and previous « Dana » Exped., Dana-Rep. N. 7, 1-44. Copenhagen & London (1935). **b - 764**

Determinations have been made in the North Atlantic and Caribbean Sea, Pacific and Tasmanian Sea, Indo-Malayan region, waters west of Sumatra, Indian Ocean, South Atlantic, Straits of Gibraltar and adjacent waters, and Mediterranean, each of which is described here separately. As a general conclusion A. finds that the quantity of macroplankton in the deeper layers (hauls with at least 1000 m. w.) is comparatively small and fairly uniform in most of the tropical and temperate oceanic regions. Exceptions are the Gulf of Panama and the northerly areas of the North Atlantic with a comparatively rich plankton fauna in the deeper layers.

**Kisselev I. A.** - The Arctic and Mediterranean Elements in the Phytoplankton of the Amur Delta, their Origin and Distribution [*Agitur de elementis arcticis et mediterraneis in phytoplancton ad deltam fluminis* Amur *pertinente. Agitur etiam de origine et distributione eorundem elementorum*]. (In Russ). Bull. Pacif. Comm. Acad. Sc., USSR, 3, 41-43. Leningrad (1934). **b - 765**

Report sent to the Fifth Pacific Science Congress. Brief comment on the influence of waters of different origin on the hydrological characteristics of the Amur estuary and on its phytoplankton, whose distribution clearly indicates the origin of the waters of the estuary which come from the River, the Arctic Sea and the Japan Sea.

**Kisselev I. A.** - Seasonal Variations of the Phytoplankton in the Patrocles Bay in the Japan Sea [*Agitur de variationibus, pro anni tempore, in phytoplancton in baja* Patrocles *in mari Japonio*]. (In Russ.). Bull. Pacif. Comm. Acad. Sc. USSR, 3, 45-48. Leningrad (1934). **b - 766**

Report sent to the Fifth Pacific Science Congress. Brief account on the investigation carried on by the hydrological station established by the Pacific Scientific Institute of Fisheries on the entrance in the Patrocles Bay in the Japan Sea at 43° 04′ l. N., and 131° 57′ l. 0. on the seasonal variations of the composition of the phytoplankton of the Bay intimately collegated with the variations of the hydrological elements, i. e. the currents, the temperature and the salinity of the water.

**Leavitt B. B.** - Quantitative Studies of the Vertical Distribution of the Larger Zoöplankton in Deep Water [*Studium quantitativum distributionis verticalis zooplanctonicae per aquas peraltas*]. 3 figs., 5 tabl., Biol. Bull. LXVIII, 1, 115-130. Lancaster, Pa. (1935). **b - 767**

The A. has measured the total volumes of all the catches and has identified and counted all the *Euphausiacea* that have been collected 100 to 300 miles south and east of Woods Hole during the summer of 1933. It has been sufficiently established at least for this part of the ocean and time of year that Euphausiids as a group reach their highest development in the upper water layers.

**Leavitt B. B.** - Investigations of Bathypelagic Zoöplankton and Experiments with Closing Nets [*Investigationes in plancton bathypelagicum et experientiae retium auxilio clausura praeditorum*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 24. Woods Hole, Mass. (1935). **b - 768**

Brief account on studies of the vertical distribution of the larger forms of the zoöplankton in deep water, on improvement of releasing devices for closing nets and on development of more satisfactory methods of rigging and handing large nets.

**Le Blanc R.** - Sur quelques Chaetocéros de l'Etang de Thau [*Agitur de quibusdam exemplaribus ad Chaetocera pertinentibus in Stagno* Thau]. 6 fig., C. R. Acad. Sci., CCI, 139-140. Paris (1935). **b - 769**

Le Plankton du juillet 1935 contient de nombreuses chaînes de *Chaetoceros Lauderi, C. pseudobreve, C. danicum, C. paradoxum,* pourvues d'auxospores. Comparaisons et remarques.

**Liebman E.** - Oceanographic Observations on the Palestine Coast [*Observationes oceanographicae apud litora Palestinae*]. 2 graphs, Rapp. Pr. Verb. Cons. Expl. Scient. Mediterranée, IX (n. série) 181-186. Paris (1935). **b - 770**

One table gives comparative values on the quantitative seasonal distribution of plankton collected at the Palestine Coast with two maxima periods (April and September). The great increase of Plankton in Autumn is of vital importance for sea-fisheries as is seen from the vaste shoals of fish which appear near the shores. Studies on the temperature and salinity of these waters.

**Mielck W. & Künne C.** - Fischbrut- und Plankton-Untersuchungen auf dem Reichsforschungsdampfer « Poseidon » in der Ostsee, Mai-

Juni 1931 [*Investigationes in ova piscium, atque etiam in plancton, peractae inter navigationem navis* «Poseidon» *per mare Balticum a mense Majo ad Junium A. 1931*]. 8 Taf. a. T., 12 Abb., Anh. v. 39 Tab., Wiss. Meeresunters. hrsg. Komm. wiss. Unters. Dtsch. Meere i. Kiel u. Biol. Anst. Helgoland, N. F., Abt. Helgoland. XIX, 3, 7, 120 S. Leipzig & Kiel (1935). **b - 771**

I. Teil (Mielck). Feststellung der Verbreitung und Mengenverhältnisse der Fischbrut (besonders Sprott, Dorsch und andere Nutzfische) und Planktons. Methoden und Geräte. Untersuchungen und Aufarbeitung des Materials an Bord. Feststellung von drei verschiedenen Laichgebieten. Allgemeine Beobachtungen über die Fischbrut: Volumenvergrösserung der planktonischen Fischeier in der Ostsee, verschiedene Herkunft der Eier an demselben Platze, Laichzeiten, Vergleich zwischen Ostsee–und Nordseelarven derselben Art. Hydrographische Beobachtungen.

2. Teil (Künne). Die Verbreitung der grösseren Planktontiere (ausser Fischbrut). Vertikal- und Horizontalverbreitung des Grossplanktons. Beziehungen zwischen Grossplankton und Fischbrut. *Coelenterata, Vermes, Arthropoda, Chaetognata, Tunicata*. Tabellanhang über die verschiedenen Fänge. Bibl.

**Pavillard J.** - Péridiniens et Diatomées pélagiques recueillis par Alain Gerbault entre les îles Marquises et les îles Galapagos [*Peridineae et Diatomeae pelagicae, collectae ab* Alain Gerbault *inter insulas* Marquises *et* Galapagos]. 2 fig., Bull. Inst. Océanogr., 669, 1-8. Monaco (1935). **b - 772**

L'A. met en évidence quelques-unes des particularités essentielles du plankton de Gerbault en ce qui concerne l'abondance et la distribution de quelques espèces. Enfin il donne les tableaux des espèces recueillies aux différentes stations.

**Retovskij L. O.** - Preliminary Data on the Plankton of the Obj Bay, the Tazova Bay and the Ghydo-Jamo Gulf [*Data priora de plancton in baja* Obj, Tazova *et Sinu* Ghydo-Jamo]. (In Russ.). Bull. Arct. Inst., 7, 195-96. Leningrad (1935). **b - 773**

Brief account of the composition of the plankton of the area under investigation, determined on hand of 80 samples, hauled from its waters. Author concludes that the plankton of the area contains fresh-water fluviatic organisms, fresh-water organisms belonging to the waters of the bays and the Gulf and several forms belonging to the brackish-water species.

**Russell F. S. & Colman J. S.** - The Zooplankton. (2): The Composition of the Zooplankton of the Barrier Reef Lagoon. (3): A Comparison of the Abundance of Zooplankton in the Barrier Reef Lagoon with that of some Regions in Northern European Waters. (4): The Occurrence and seasonal Distribution of the *Tunicata, Mollusca,* and *Coelenterata* (*Siphonophora*) [*De zooplancton.* (2): *De compositione zooplanctonica in lacuna* Barrier Reef *nomine.* (3). *Comparatio inter abundantiam zooplanctonicam a lacuna* Barrier Reef *provenientem et copiam a ceteris regionibus europaeis provenientem.* (4): *Praesentia et distributio, pro anni tempore, Tunicatorum, Molluscorum et Coelenteratorum*]. Brit. Mus. (Natur. Hist.). Great Barrier Reefs Exped., 1928-29. Scient. Rep. II, 6-7, 159-276. London (1934-35). **b - 774**

Discussion on the methods of collecting. Abundance of Copepods, other animals of importance: Tunicates, Molluscs, Echinoderm Larvae, Ostracods, Decapod Larvae and *Siphonophora*. Comparisons show that the Barrier Reef samples have more volume but fewer animals. Influence of temperature.

**Russell F. S.** - On the Value of Certain Plankton Animals as Indicators of Water Movements in the English Channel and North Sea. [*Agitur de valore aliquorum animalium planctonicorum pro motibus aquae Freti Britannici et Maris Nordici*]. 7 figs., Journ. Mar. Biol. Assoc., XX, 2, 309-332. Plymouth (1935). **b - 775**

It is shown that the planktonic indicators for «western» waters are *Sagitta elegans, S. serratodentata, Aglantha rosea, Stephanomia bijuga, Clione limacina, Meganyctiphanes norvegica, Thysanoessa inermis,* and *Cosmetira pilosella* (in spring and summer only). *Sagitta setosa* is regarded as an indicator of «Channel» water. *Muggiaea,* Salps, Doliolids, *Liriope exigua* and *Euchaeta hebes* are regarded as indicators of «south-western» water. The geographical distribution of *S. setosa* is discussed.

**Savage R. E. & Hardy A. C.** - Phytoplankton and the Herring. Part I. 1921 to 1932 [*De phytoplancton deque aringis. Pars I^a^ a 1921 ad 1932*]. Many tabl., 41 figs., Fish. Invest. 1934, XIV, Ser. II, 2, 1–73. London (1935). **b - 776**

The object of this paper is to give an account of the distribution and movements of any dense phytoplankton concentrations in the Southern North Sea and their influence on the herring fishery. Early work. Analysis of data for years 1921-23, 1924-32. The nature of phytoplankton barriers. Appendix A. Other Diatom concentrations. Appendix B. List of cruises.

**Tagatz W.** - Some Knowledge About Zooplankton of the Bay of Patrokl (Japan Sea, Near Vladivostok) in Summer 1926 [*Data de zooplancton in baja* Patrokl, *aestate 1926*]. (In Russ.; Engl. Summ.). 10 figs., 3 diagrs., Expl. Mers URSS, 19, 59-71. Leningrad (1933). **b - 777**

Account of meteorological, hydrological and hydrobiological observations carried out during the summer 1926 in the Bay of Patrokl. The influence of the Strait of East Bosphor on the hydrological regime of the Bay.

List on the general composition of the zooplankton as observed on 0-5, 5-10, 10-15, and 15-20 m. A. ascribes the strong luminousness of the water of the Bay of Patrokl to the *Dinoflagellata* of the plankton.

**Thompson H. & Frost N.** - The Plankton in 1934 [*De plancton A. 1934*]. 1 figs., 2 tables, Rep. Newfoundl. Fish. Research, Labor., II, 3, 19-23. Newfoundland (1935). **b - 778**

Results of observations on the fluctuations of the plankton; predominating influence of the Atlantic water on the increases and decreases of the plankton; results of the analysis of several groups of plankton, and in particular on the very important *Ceratium* group; some evidence on the unusual occurrence in 1934 of southern warm water along the Labrador coast.

**Ussatschew P. I.** - Die Zusammensetzung und Verteilung des Phytoplanktons des Barentsmeeres im Sommer 1931 [*De compositione et distributione phytoplanctonica per mare Barentsium, aestate 1931*]. (Russ. Text., dtsch. Rés.). Tab., 21 Abb., Trans. Arct. Inst., XXI, 5-94. Leningrad (1935). **b - 779**

Fangmethoden. Verzeichnis der gesammelten Planktonarten mit Tabelle über das gegenseitige Verhältnis der Hauptgruppen. Drei Hauptgruppen werden in Betrachtung der dominierenden Formen unterschieden, die damit zusammenhängenden ökologischen Faktoren besprochen und in Tabellen wiedergegeben.

**Woloszyńska J.** - Quelques remarques sur l'*Attheya decora* West, diatomée planctonique très rare [*Data de «Attheya decora» West, diatomaea planctonica rara praetermodum*]. Acad. Pol. Sc. et Lettr., C. R. Mensuels Cl. Sc. Mathém. et Natur., 3, 8. Cracovie (1935). **b - 780**

L'A. a noté et décrit pour la première fois cette diatomée dans la Baltique et precisément dans le Golfe de Gdańsk.

**Wulff A.** - Oekologische Untersuchungen der Biologischen Anstalt. *b*) Plankton [*Investigationes oecologicae stationis biologicae.* b) *Plancton*]. Biologe, III, 175-177. München (1934). **b - 781**

# ZOOLOGIA SYSTEMATICA ET DESCRIPTIVA

## Bacteria.

**Bertel R.** - Les Bactéries marines et leur influence sur la circulation de la matière dans la mer [*De Bacteriis marinis eorumque influentia in circulationem substantiae in mari*]. 3 fig., Bull. Inst. Océanogr., 672, 1-12. Monaco (1935). **b - 782**

L'A. a fait la culture des plus importants types de Bactéries marines et a exploré leurs fonctions biologiques et biochimiques dans la circulation de la matière dans la mer.

**Burke V.** - Interchange of *Bacteria* between Fresh Water and the Sea [*Bacteria. Quaestio de permutatione inter aquam dulcem et mare*]. Journ. Bacteriol., XXVII, 201-205. Baltimore (1934). **b - 783**

**Kimata Masao** - Decomposition of Fish Muscle and Rate of Growth of Bacteria in Relation to the Number of Seeding Bacteria [*Agitur de decompositione musculi piscis deque velocitate accretionis Bacteriorum pro numero eorumdem bacteriorum satorum*]. 4 figs., Bull. Jap. Soc. Scient. Fish, IV, 4, 215-216. Tokyo (1935). **b - 784**

Results of the experiments undertaken on *Trachyurus japonicus* inoculated with *Pseudomonas fluorescens*.

**Mariani G.** - Studio di un ceppo batterico isolato dal fango marino [*Agitur de quodam stipite bacterico a luto marino separato*]. Giorn. Batteriol. e Immunol, XV, 3, 469-474. Torino (1935). **b - 785**

L'A. ha studiato un ceppo batterico isolato dal fango del fondo marino, classificandolo fra gli antracoidi. Ritiene utile rendere note le sue ricerche perchè dimostrano le difficoltà incontrate nella classificazione che attualmente si deve fare tenendo conto dei recenti studi sopra le mutazioni del *B. carbonioso*.

**Parisi R.** - Una nuova matrice dello *Schizophyllum commune* Fr. [*Matrix quaedam nova speciei «Schizophyllum commune»*]. Atti Soc. Ital. Progr. Sc. (XXIII Riun., Napoli), III, 138. Roma (1934). **b - 786**

Si comunica il rinvenimento dello *Schizophyllum* su una matrice insolita, quale lo scheletro di una balenottera (*Balaenoptera physalus* L.).

**Pierantoni U.** - Sulle cause della luce nei batterii fotogeni [*Quaestio de luce in Bacteriis photogenis*]. Riv. Fis. Nat. e Sc. Nat., X, 1/2, 53-54. Napoli (1935). **b - 787**

L'A. discute le recenti scoperte sull'origine batterica della luce negli organi fotogenici degli animali marini, e sulla fotogenesi nei batteri. Conclude affermando che la luminiscenza nei batteri è strettamente associata alla struttura cellulare e non alla produzione e reazione di speciali sostanze.

**Waksman S. A.** - The Distribution and Conditions of Existence of *Bacteria* in the Sea [*De distributione et condicionibus pro existentia Bacteriorum in mari*]. Ecol. Monogr., IV, 3, 523-529. Brooklyn (1934). **b - 788**

Two necessary factors are considered: the supply of available nutrients and the environmental conditions. The importance of the marine *Bacteria* for the plant and animal life in the sea.

**Waksman S. A. & Carey C. L.** - Decomposition of organic Matter in Sea Water by Bacteria. I. Bacterial Multiplication in Stored Sea Water. II. Influence of Addition of organic Substances upon bacterial Activities [*De decompositione materiae organicae in aqua marina per Bacteria. I. Multiplicatio Bacteriorum in areis clausis aquae marinae. II. Influentia adiunctionis substantiarum organicarum ad activitates bactericas*]. 6 figs., Journ. Bacteriol., XXIX, 5, 531-543; 545-561. Baltimore (1935). **b - 789**

Time and temperature of maximum development of Bacteria. Importance of O concentration for bacterial activities. Parallelism between the decomposition of the organic matter in the water by Bacteria and bacterial multiplication.

**Waksman S. A., Carey C. L., Ostroff R. & Renn C. E.**, assisted by **Kirsch D.** - Studies in Marine Bacteriology [*De bacteriologia marina*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 35-36. Woods Hole, Mass. (1935). **b - 790**

Brief account of the investigations in marine bacteriology carried out during the summer 1934 and centered around four general problems: (1) decomposition of the organic matter in sea water, (2) the rôle of Bacteria in the cycle of nitrogen in the sea, (3) associative growth of Diatoms and Bacteria, (4) the specific nature of the organism responsible for the disappearance of the eel-grass, *Zostera marina*.

**Zobell C. E.** - Microbiological Activities at Low Temperatures with particular Reference to Marine *Bacteria* [*De activitate microbiologica, demis-*

*sis temperaturis. Agitur particulatim de Bacteriis marinis*]. Quart. Rev. Biol., IX, 4, 460-466. Baltimore (1934). **b - 791**

**Zobell C. E. & Feltham C. B.** - The Occurrence and Activity of Urea-splitting *Bacteria* in the Sea [*De praesentia et activitate in mari Bacteriorum quae uream dissolvunt*]. Science, LXXXI, 2096, 234-236. New York (1935). **b - 792**

Observations have been made to ascertain if there are any significant numbers of urea-splitting *Bacteria* that are functional in and indigenous to the sea, or if those found in the sea are merely passive terrestrial contaminants. The relative abundance of urea-splitting *Bacteria* was estimated and pure cultures were obtained.

The three different types of urea-splitting *Bacteria* isolated from the sea.

**Zobell C. E. & Allen E. C.** - The Significance of Marine *Bacteria* in the Fouling of Submerged Surfaces [*Quae Bacteria significant quoad putredinem rerum submersarum*]. 2 figs., 3 tabl., Journ. Bacteriol., XXIX, 3, 239-251. Baltimore (1935). **b - 793**

The observations made by the AA. show quite conclusively that *Bacteria* and, to a lesser extent, other microörganisms are the primary film-formers on submerged glass slides, and that such films favor the subsequent attachment of the larger and more inimical fouling organisms (Barnacles). The film of *Bacteria* may promote the attachments of macroscopic organisms in different ways. Description of three new Bacteria: *Acromobacter marinoglutinosus*, *A. membranoformis* and *Flavobacterium amocontactus*.

**Zobell C. E. & McEwen G. F.** - The Lethal Action of Sunlight upon *Bacteria* in Sea Water [*De lucis solaris actione letali in Bacteriis marinis*]. 2 figs., 6 tabl., Biol. Bull., LXVIII, 1, 93-106. Lancaster, Pa (1935). **b - 794**

Observations on the vertical, diurnal, and seasonal distribution of *Bacteria* in the sea fail to show evidence of a lethal action of sunlight. While the seasonal fluctuation in the bacterial population is more or less inversely proportional to the intensity of sunlight, it is recognized that there are multifarious interlinked biological, physical, and chemical factors which also influence the bacterial population of sea water.

## Protozoa.

**Bohn G.** - La Cellule et les Protozoaires. Leçons de Zoologie et Biologie Générale [*De cellula et Protozois. Praecepta zoologiae et biologiae generalis*]. I. Actualités Scient. et Industr., 43 fig., CVI, 1-121. Paris (1934). **b - 795**

Organisation chimique physique et multiplication de la cellule. *Flagellata*, *Amoebae*, *Foraminifera*, *Infusoria ciliata*, *Radiolaria* et *Heliozoa*, *Sporozoa* et *Cnidosporida*.

**Casasnovas Colom G.** - Notas sobre Foraminíferos. Las especies de la familia *Peneroplidae* actuales y fósiles de las Baleares [*De Foraminiferis. Species praesentes et fossiles ad familiam « Peneroplidae » pertinentes, insularum Balaearium*]. 5 figs., 9 láms., Bol. Soc. Españ. Histor. Natur., XXXV, 1/2, 83-102. Madrid (1935). **b - 796**

Historia de la fam. *Peneroplidae*, Subfam. *Spirolininae*, gen. *Peneroplis*: *P. pertusus*, *P. carinatus*, *P. planatus*, *P. loevigatus*; gen. *Spirolina*: *S. semi-litmes*, *S. arietinus*, *S. navarroi n. sp.*

Especies fósiles: *Peneroplis* cf. *planatus*, *P.* cf. *discoideus*, *Spirolina* cf. *cylindrica*; sufam. *Orbitolitinae*: *Amphisorus hemprichii*.

**Chatton E. & Biecheler B.** - Les *Amoebophrya* et les *Hyalosaccus*; leur cycle évolutif. L'ordre nouveau des *Coelomastigina* dans les Flagellés [*« Amoebophrya » et « Hyalosaccus ». Cyclus evolutionis. Novus ordo Coelomastiginorum in Flagellatis*]. C. R. Acad. Sc., CC, 7, 505-507. Paris (1935). **b - 797**

Parenté très étroite sinon l'identité des deux genres *Amoebophrya* et *Hyalosaccus* relevée par la connaissance de l'évolution complète dans l'hôte y compris la formation des spores flagellées. Placement des *Amœbophrya* dans la classe des Flagellés, création d'un nouvel ordre *Coelomastigina* (L. S.).

**Chatton E. & Lwoff A.** - Les Ciliés apostomes. I. Aperçu historique et général; étude monographique des genres et des espèces [*Ciliata apostomata. I. Compendium historicum generale. Studium monographicum generum et specierum*]. Arch. Zool. Exp. et Gén., LXXVII, Fasc. 1. Paris (1935). **b - 798**

**Clemens W. A.** - Red « Water-Bloom » in British Columbia Waters [*Coloratio rubra aquarum Columbiae Britannicae*]. Nature, CXXXV, 3412, 473. London (1935). **b - 799**

Occurrence of blood-red water at Nanaimo, British Columbia, during the week of April 28, 1933, caused by *Mesodinium rubrum*, Lohman. This ciliate has also been found in Oysters in Ladysmith Harbour, fifteen miles south of Nanaimo and in local Clams.

**Cushman J. A.** - *Foraminifera*, their Classification and Economical Use [*Foraminifera. Quaestio de distributione in classes deque utilitate oeconomica*]. 2nd Ed., 31 pls. & text-figs., Cushman Labor. Foramin. Res., Spec. Publ. 4, 349 pp. Sharon, Mass. (1933). **b - 800**

Second edition improved and brought up to date of the widely used handbook of living and fossil *Foraminifera*. The key of the genera has been amplified and the 45 families and 412 genera of the first edition have grown into 47 families and 532 valid genera and subgenera. The families of *Fusulinidae* and *Orbitoididae* are described by Carl O. Dunbar and T. Wayland Waughan respectively.

**Cushman J. A.** - An Illustrated Key to the Genera of the Foraminifera [*Foraminifera. Aditus scientificus ad genera explicanda*]. 40 pl., Cushman Labor. Foramin. Res. Spec. Publ., 5, 24 pp. Sharon, Mass. (1933). **b - 801**

This key now published in a separate volume has been presented in the first edition of « Foraminifera, their Classification and Economic Use », of which also a new second improved and amplified edition has been issued.

**Cushman J. A.** - Fourteen New Species of Foraminifera [*Foraminifera. Species novae XIV*]. 3 pls., Smiths. Miscell. Collections, Publ. 3327, XC, 21, 1-9. Washington, D. C. (1935). **b - 802**

This material completes that formerly obtained by the Challenger-expedition in the area on the north coast of Puerto Rico. Description of 14 new species with holotypes.

**Dangeard P. A.** - Mémoire sur l'*Apistonema submarinum* sp. nov. et considérations générales sur la structure des Protozoaires et des Protophytes [*Memoria de specie « Apistonema submarinum » considerationesque generales de structura*

*quoad «Protozoaria» et «Protophyta»*]. 4 pl., 6 fig., Botaniste, XXVI, 3, 261-345. Paris (1934). **b - 803**

Cette nouvelle espèce a été trouvée au milieu d'autres organismes d'eau salée; Morphologie, cytologie, reproduction. Expériences des réactions de couleur avec *Apistonema submarinum* et *Monas biocellata* n. sp., *M. longicilia*, *M. vorax* n. sp., *Chromulina maxima* n. sp., *Oxyrrhis marina*, *Synedra*, *Rhodochorton*, *Ectocarpus reptans* et *Vaucheria*.

**Deflandre G.** - Sur un Silicoflagellé aberrant, *Dictyocha recta* (Schulz), à squelette non tubulaire [*De quodam silicoflagellato aberrante «Dictyocha recta» scheletro praedito nontubulari*]. 5 fig., Bull. Soc. Franç. Microsc., III, 4, 115-118. Paris (1934). **b - 804**

L'A. trouve que la forme connue jusqu'ici sous le nom de *Dictyocha triacantha* Ehr. var. *recta* Schulz est un silicoflagellé vrai, bien que le caractère fondamental du squelette soit absent. Enfin, il remanie la diagnose de la famille des Silicoflagellés.

**Dons C.** - *Echinofolliculina Mortenseni* n. gen., n. sp., – 2 fig., Kgl. Norsk. Vidensk. Selsk. Forh., 1934, VII, 9, 28-30. Trondheim (1935). **b - 805**

Diese Art ist dem Material von Folliculiniden, die von Dr. Th. Mortensen während seiner Südsee-Expedition 1914 gesammelt war, entnommen und an der NO-Küste von New Zealand gefunden worden. Diagnose, Vergleich mit anderen Karaffentierchen, Verpflanzung.

**Dons C.** - Uebersicht der Folliculiniden [*Folliculinida*]. Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 10, 31-32. Trondheim (1935). **b - 806**

Kurze Uebersicht der wichtigsten und sicheren Arten mit Bestimmungsschlüsseln für die Genera.

**Frisch J. A.** - Experimental Adaptation of Fresh-water Ciliates to Sea Water [*Ciliata aquae dulcis et aquae marinae. Quaestio de adaptatione experimentali*]. Science, LXXXI, 2109, 537. New York (1935). **b - 807**

Short note on experiments undertaken with *Paramecium caudatum* and *P. multicronucleatum*. Negative results.

**Georgévitch J.** - Protistologie. Les Myxosporidies des Poissons de la Mer [*Protistologia. Myxosporida piscium marinorum*]. Rapp. Pr.-Verb. Cons. Expl. Scient. Méditerranée, IX (n. sér.), 137-144. Paris (1935). **b - 808**

Après quelques remarques générales sur l'organisme des Myxosporidies l'A. concentre ses études sur le rôle du cycle chromosomique dans le processus de la sporogénèse en citant aussi les recherches faites par Naville. Selon l'A. les Myxosporidies sont des organismes à noyaux diploïdes.

**Giambra R.** - Alcune Peridinee del mare di Palermo [*Peridineae maris Panormitani*]. Boll. Pesca, Piscicolt. e Idrobiol., XI, 1, 33-35. Roma (1935). **b - 809**

L'A. prende in esame il fitoplancton del mare di Palermo; comunica l'elenco delle specie di Peridinee fin qui determinate.

**Hall R. P.** - A Note on the Flagellar Apparatus of *Peranema trichophorum* and the Status of the Family *Peranemidae* Stein [*Nota de apparatu flagellari speciei «Peranema trichophorum» deque condicionibus familiae Peranemidarum*]. Trans. Amer. Microsc. Soc., LIII, 3, 237-244. Lancaster, Pa. (1934). **b - 810**

Previous reports of the biflagellate condition of *P. trichophorum* are confirmed. Discussion on the behaviour of the flagellar apparatus in binary fission. Criticism of Calkins' classification of *Euglenida*.

**Lackey J. B.** - Studies on Marine Protozoa [*Protozoa marina*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 23. Woods Hole, Mass. (1935). **b - 811**

Brief summary of the investigation, during which over 250 species of marine Protozoa were identified from the inshore waters of the Woods Hole area. Their abundance, as well as their succession during the summer months were determined.

**Lacroix E.** - *Discammina fallax* et *Haplofragmium emaciatum*. – 9 fig., Bull. Inst. Océanogr., 667, 1-16. Monaco (1935). **b - 812**

D'après l'étude de la texture et de la structure de ces deux espèces l'A. a pu non seulement les identifier, mais tirer au clair, par des techniques variées, plusieurs points intéressants de la morphologie et de la biologie des Arenacés labyrinthiques.

**Lalicker C. G.** - Two New *Foraminifera* of the Genus *Textularia* [*Foraminifera duo nova ad genus «Textularia» pertinentia*]. 1 pl., Smiths. Miscell. Collections, Publ. 3328, XCI, 22, 1-2. Washington, D. C. (1935). **b - 813**

*Textularia calva* n. sp. and *T. lateralis* n. sp. obtained during the Johnson-Smithsonian Expedition of 1933.

**Le Calvez J.** - Sur quelques Foraminifères de Villefranche et de Banyuls - Protistologica LV [*De quibusdam Foraminiferis ad* Villefranche, *et* Banyuls *pertinentibus. Protistologica LV*]. 11 fig., Arch. Zool. Expér. et Gén., XXVII, 2, 79-98. Paris (1935). **b - 814**

Description et distribution de quelques espèces de Foraminifères dont certaines sont nouvelles. Fam. *Allogromiidae*, *Astrorhizidae*, *Rhiizamminidae*, *Saccaminidae*, *Lituolidae*, *Ophtalmidiidae*.

**Le Calvez J.** - Flagellispores du Radiolaire: *Coelodendrum ramosissimum*. Protistologica LVI [*Flagellisporae Radiolarii «Coelodendrum ramosissimum». Protistologica LVI*]. 2 fig., Arch. Zool. Expér. et Gén., LXXVII, 2, 99-103. Paris (1935). **b - 815**

Prise de plancton, effectuée à 200 mètres de profondeur; étude des flagellispores de ce Radiolaire qui ne doit pas être considéré comme un parasite.

**Myers E. H.** - Morphogenesis of the Test and the Biological Significance of Dimorphism in the Foraminifer *Patellina corrugata* Williamson [*De morphogenesi quoad concham deque significatione biologica quoad dimorphismum in Foraminifero «Patellina corrugata»*]. 1 fig., Bull. Scripps Instit. Oceanogr. Univ. Calif., La Jolla, Calif., Techn. ser., III, 16, 393-404. Berkeley, Calif (1935). **b - 816**

Systematic position of this species. Organization and development of test. The addition of new chambers. Rate of reproduction. Dimorphism.

**Savage R. E., More A. & Lumby J. R.** - A Note on *Amoebae* living in a Sea Water Sample [*De Amoebis viventibus repertis in specimine aquae*

*marinae*]. Journ. Cons. Expl. Mer., X, 2, 185-186. Copenhague (1935). **b - 817**

The specimens, which the AA. concluded to be *Entamoeba*, have probably come into the sampler from the bilge of the ship.

**Schott W.** - Die Foraminiferen in dem äquatorialen Teil des Atlantischen Ozeans [*De Foraminiferis in regione aequatoriali Oceani Indiani*]. 40 Abb., 40 S., Wiss. Ergebn. Dtsch. Atlant. Exped. « Meteor », 1925-1927. B. III, 3. Teil, Lief. 1 B., Walter de Gruyter & Co., Berlin & Leipzig (1933-35). **b - 818**

Wichtige Schlussfolgerungen in Bezug auf die Verteilung der pelagischen Foraminiferen.

**Schreiber G.** - Primi risultati di ricerche biometriche sui Radiolari [*Resultatus priores ex investigationibus biometricis in Radiolaria*]. Boll. Zool., VI, 1/3, 71-74. Napoli (1935). **b - 819**

Limiti di variabilità delle forme tipica e batibia di alcune specie di Feodari del genere *Protocystis*, e precisamente: *P.* (*Challengeria*) *xiphodon* Haeckel, *P. tritonis* Haeckel e *P. naresi* Murray.

**Schreiber G.** - Ricerche biometriche sui Radiolari. I. Variabilità e distribuzione del *Challengeron diodon* Haeckel [*Investigationes biometricae in « Radiolaria ». De variabilitate et distributione speciei « Challengeron diodon »*]. 3 fig., 1 tav., Pubbl. Staz. Zool. Napoli, XV, 1, 1-15. Napoli (1935). **b - 820**

La ricerca biometrica sulla variabilità del diametro della gabbia nella popolazione di *Challengeron diodon* Haeckel del Golfo di Napoli, mostra nettamente l'esistenza di due forme, una piccola e una grande, ognuna variabile entro limiti di grandezza propri e nettamente distinti. La forma grande è esclusiva degli strati profondi (1000 m.) mentre la piccola è distribuita in tutti i livelli, pur essendo più frequente nelle pescate a 600 metri.

Non sembrano esservi differenze morfologiche apprezzabili fra le due forme, nè nelle sculture della gabbia nè nella disposizione delle spine. La distribuzione stagionale è differente in superficie e in profondità. La forma tipica ha un massimo in primavera ed uno in autunno a 600 metri mentre sembra più frequente in estate che in inverno a 1000. La forma batibia è più costante.

**Sorrentino S.** - Considerazioni sulla variabilità dei caratteri di *Alveolina* e *Flosculina* dal punto di vista del loro raggruppamento e determinazione I. [« *Alveolina* » *et* « *Flosculina* »: *considerationes quoad variabilitaten caracterum ex eorum conglobatione scientifica et determinatione*]. 3 graf., Boll. Soc. Natur. Napoli, XLVI, 121-152, Napoli (1934). **b - 821**

Caratteri di variabilità delle Alveolinidi in base ai quali si precisa e si giustifica l'istituzione della « Famiglia ». Si dimostra la possibilità di tradurre in « quantitativi » i caratteri qualitativi allo scopo di tracciare dei grafici che permettano e rendano più evidente la distinzione di forme affini e dubbie.

**Steemann N. E.** - Untersuchungen über die Verbreitung, Biologie und Variation der Ceratien im südlichen Stillen Ozean [*Ceratia. Investigationes in distributionem, biologiam et variationem in Oceano Pacifico Meridionali*]. 11 Karten, 37 Abb., Carlsberg Foundation's Oceanogr. Exped. round the world 1928-30 and previous « Dana » Exped. Dana-Rep. N° 4, 1-67. Reitzels Forlag. C. A., Oxford Univ. Press., Copenhagen & London (1934). **b - 822**

Die Hydrographie des südlichen Stillen Ozeans. Beschreibung von etva 60 bisher festgestellten Ceratienarten von denen 4 neu sind. Schematische Uebersicht über die biologischen Typen; die Variation und die darauf einwirkenden Faktoren. Die Ceratienbevölkerung des südlichen Stillen Ozeans im Verhältnis zu denjenigen der übrigen Ozeane. Appendix: Stationsliste und die horizontale und vertikale Verbreitung der Ceratien.

**Thomas Dighton H.** - The Economic Importance of the Foraminifera. [*Foraminifera. Quaestio de eorum momento oeconomico*]. 1 fig., Nature, CXXXVI, 3430, 130-132. London (1936). **b - 823**

Some information on the value of the *Foraminifera* as indicators of oil-bearing soil. (See also post-script by Heron-Allen, the same rev. pp. 132-133).

## Porifera.

**Arndt W.** - Porifera (Systemat. Teil.) [*Porifera. Pars systematica*]. 239 Abb., Die Tierwelt der Nord–und Ostsee gegr. v. G. Grimpe & E., Wagler. Hrsg. v. G. Grimpe., Lief. 27, Teil 3-*a*, Akad. Verlagsg. Leipzig (1935). **b - 824**

**Breitfuss L.** - Le spugne calcaree dell'Atlantico con riflesso a tutto il Mediterraneo [*De Spongiis calcariis Oceani Atlantici. Nota extenditur ad Mediterraneum*]. 1 tav., 3 tab., Mem. R. Comit. Talassogr. Ital. (C. N. D. R.), N° CCXXIII, 1-46. Venezia (1935). **b - 825**

Prospetto generale delle singole specie di spugne e dei loro sinonimi; in tutto vengono elencate 42 spugne calcaree dell'Adriatico e 74 di tutto il Mediterraneo, compreso il Mare Egeo, il Mar di Marmara ed il Mar Nero. Le specie sono elencate secondo il sistema di Hentschel: sono citati soltanto i sinonimi più importanti. In apposite tabelle è riportata la distribuzione geografica e batimetrica delle Spugne calcaree. Di 67 specie di Spugne calcaree del Mediterraneo, 36 s'incontrano anche nell'Oceano Atlantico, 24 nell'Oceano Pacifico e 21 nell'Oceano Indiano, globalmente dunque 40 specie, cioè il 72 %; di 34 specie adriatiche si rinvengono altrove 22 specie, cioè il 60 %.

**Burton M.** - Sponges [*Spongiae*]. 8 pls., 8 figs., Res. Swedish Antarctic Exped. 1901-1903, III, 2, 1-58. Stockholm (1934). **b - 826**

The following forms (from Falkland Isl.) are new: *Hoplochalina glacialis*, *Pachypellina fistulata*, *Isodictya delicata* v. *megachela*, *Rhaphidophlus lissocladus*, *Stylostichon tuberculata* and *Microciona basispinosa*.

**Burton M.** - Notes on some Marine Sponges from the Belgian Congo [*Notae de Spongiis marinis ad Congo Belgicum pertinentibus*]. Rev. Zool. Bot. Afric., XXIV, 4, 410-411. Bruxelles & Gand (1934). **b - 827**

*Spongia officinalis* and *Plocamia plena*.

**Burton M.** - Notes on British Sponges, with a Description of a new Genus and Species [*Nota de Spongiis britannicis cum descriptione novi cuiusdam generis novaeque speciei*]. Ann. and Magaz. Hist., XV, 90, 651-653. London (1935). **b - 828**

11 spp. from the west coast of Scotland are recorded, of which *Rhaphidostyla* n. gen. and *R. kitchingi* n. sp.

**Ferrer Hernández F.** - Primera Campaña biológica a bordo del « Xauen » en aguas de Mallorca (Abril de 1933). Esponjas [*De prima navigatione biologiae causa per navem* « Xauen » *peracta in Balearem Majorem.* (*Mense Aprili 1933*). *Spongiae*]. Notas y Resúm., ser. II, 80, 1-3. Madrid (1934). **b - 829**

Lista de las Esponjas capturadas: *Calcarea. Tetraxonida. Keratosa.*

**Laubenfels (de) M. W.** - Some Sponges of Lower California (Mexico) [*De Spongiis ad Californiam Meridionalem pertinentibus*]. 9 figs., Amer. Mus. Novit., 779, 1-14. New York (1935). **b - 830**

The present collection consists chiefly of Sponges manifesting one or other of two types of relationships; either to those from the north of them in California, or to Sponges of the Indo-Australian region. One new genus, *Hypsispongia*, is established, and eight new species and one new variety are described.

**Laubenfels (de) M. W.** - A Collection of Sponges from Puerto Galera Mindoro, Philippine Islands [*Collectio quaedam Spongiarum a* Puerto Galera *provenientium ex insulis Philippinis*]. Philipp. Journ. Sc., LVI, 3, 327-337. Manila (1935). **b - 831**

Nine species representing nine genera of the class *Demospongiae* collected in very shallow water, two of which are new: *Lissodendoryx roxasi* n. sp., *Monanchora dianchora* n. sp.

## Coelenterata – Insulae et scopuli coralliferi.

**Carlgren O.** - Some *Actinaria* from Bering Sea and Arctic Waters [*Actinaria ad mare* Bering *aquasque arcticas pertinentia*]. 1 fig., Journ. Wash. Acad. Sc., XXIV, 8, 348-353. Washington (1934). **b - 832**

13 spp. belonging to 6 families are reported. *Cnidopus ritteri* is new.

**Carlgren O.** - Di alcune Attinie e Zoantari raccolti nel Golfo di Genova (trad. dall'inglese di Issel) [*Actiniae et Zoantharia collecta in Sinu Genuensi*]. 4 fig., Boll. Mus. e Lab. Zool. e Anat. Comp. Genova, XV, 81, 3-14. Genova (1935). **b - 833**

Descrizione di una collezione di Anemoni di Mare raccolti ad una profondità di 200-300 metri. *Hormathia mediterranea* n. sp., *Epizoanthus mediterraneus* n. sp., Fam. *Parazoanthidae.*

**Deichmann E.** - Report on Coelenterates, Worms etc. [*Relatio de Coelenteratis, Vermibus etc.*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College 1934-1935, 47-49. Cambridge U. S. A. (1935). **b - 834**

Revisional work of Marine Worms *Acropora*, and *Pennatulacea* collections; exchange of collections of Sponges; new exhibits of deep sea deposits and plankton; gifts.

**Fraser McLean C.** - Hydroids from the Queen Charlotte Islands [*Hydroidea insularum* Queen Charlotte]. 1 table, Journ. Biol. Bd Canada, I, 6, 503-507. Toronto (1935). **b - 835**

*Tubularia aurea, Ophiodes corrugata* and *Selaginopsis trilateralis* are described as new. The gonangium of *Thuiaria distans* is described. *Tubiclava cornucopiae, Turris neglecta, Perigonimus serpens, Campanularia gigantea* and *Clytia minuta* are now first reported from the Pacific. (A: s abstr.).

**Gudger E. W.** - Coelenterates as Enemies of Fishes. II. Jellyfishes as Fish-eaters [*Coelenterata piscibus obnoxia. II. Medusae piscium edaces*]. 16 figs., Bull. New. York Zool. Soc., XXXVII, 2, 47-58. New York (1934). **b - 836**

**Hill D.** - British Terminology for Rugose Corals [*Terminologia britannica Coralliorum rugosorum*]. Geol. Magaz., LXXII, 481-519. London (1935). **b - 837**

This terminology is based on one proposed by Milne Edwards and Haime and includes also a critical review of the usage of terms. Skeletal formation, simple and compound coralla, increase of the corallum, calice, epitheca septa, stereozones, tabulae and dissepiments, axial structures and ontogeny of the *Rugosa* are dealt with. Bibl.

**Komai Taku** - On the Structure of *Ctenoplana* [*Ctenoplana. Quaestio de structura*]. 8 figs., Mem. Coll. Sc., Kyoto Imp. Univ., IX, ser. B, 4, 245-256. Kyoto (1934). **b - 838**

Introductory notes on the discovery of *Ctenoplana.* General structure in creeping and floating attitudes shown by diagrammatic figures. Anatomy and histology. Discussion on the tentacular apparatus. Systematic position.

**Komai Taku** - On *Stephanoscyphus* and *Nausithoë.* — 43 figs., 2 pls., Mem. Coll. Sc., Kyoto Imp. Univ., X, ser. B, 5 (Art. 14), 290-339. Kyoto (1935). **b - 839**

Historical. *Stephanoscyphus* (= *Spongicola*): external appearance; structure; strobilation. *Nausithoë*: materials examined; *Ephyra* and young medusa; development of gonad; fate of germ cells of *Stephanoscyphus*; irregular specimens of Seto as compared with those from other localities. Remarks on *Stephanoscyphus* as a scyphopolyp.

**Krempf A.** - Enregistrement du cycle marégraphique de 18 ans 2/3 par le polypier en voie de croissance de quelques Coralliaires [*Inscriptio per 18 annos et 2/3 cycli mareographici per crescentem polyparium quorumdam Corallariarum*]. Ann. Sc. Nat., 10e Sér., Zool., XVIII, 135-143. Paris (1935). **b - 840**

**Leloup E.** - Contribution à la répartition de *Tetraplatia volitans* (Busch) [*Contributio in partitionem speciei* « *T. volitans* »]. 1 carte, 1 tabl., Bull. Mus. R. Hist. Nat. Belgique, XI, 4, 1-7. Bruxelles (1935). **b - 841**

Résultats d'une étude d'exemplaires adultes de *T. volitans* (Busch) récoltés par l'expédition du « Météor » lors de son exploration, en 1925-27, de l'océan Atlantique tropical et austral jusqu'aux terres antarctiques, avec référence spéciale à l'extension géographique de cette ptéroméduse, à l'époque et à la profondeur de ses captures, et à l'éthologie de *T. volitans.*

**Leloup E.** - *Halammohydra* et les siphonophores chondrophorides [*Quaestio de* « *Halammohydra* » *et Siphonophoris condrophoridicis*]. Bull. Mus. R. Hist. Nat. Belgique, XI, 23, 1-4. Bruxelles (1935). **b - 842**

Note critique sur la première partie du travail de R. Weill publié dans le Bull. Soc. Zool. de France, LX, 1 1935, pp. 73-87, dans laquelle M. Weill affirme que la *Halammohydra* Remane par son cnidome et sa position systématique présente des affinités avec les siphonophores

chondrophorides et avec *Protohydra leuckarti* Greef; l'A. de la présente Note démontre que « malgré l'identité du cnidome, *Halammohydra* ne se rapproche nullement des Chondrophorides, mais, selon l'hypothèse de A. Remane, ce genre aberrant se rattache aux Narcoméduses.

**Leloup L. & Hentschel E.** - Die Verbreitung der Calycophoren Siphonophoren im südatlantischen Ozean [*Siphonophora calycophora Oceani Atlantici Meridionalis. Quaestio de distributione*]. Wiss. Ergebn. Dtsch. Atlant. Exped., « Meteor » 1925-1927, XII, 2 Teil, Lief. 1. Walter de Gruyter & Co., Berlin & Leipzig (1933-35). **b - 843**

**Philbert M.** - Le phénomène de stolonisation chez trois espèces d'Hydraires fixés sur des Posidonies en Méditerranée [*Quaestio de stolonisatione in tribus ex Hydrariis speciebus fixatis in Posidoniis maris mediterranei*]. 2 pl., Bull. Inst. Océanogr., 663, 1-8. Monaco (1935). **b - 844**

Etude de trois espèces intéressantes par leur stolonisation, à savoir: *Orthopyxis asymetrica* Stechow, *Sertularia perpusilla* Stechow et *Plumularia obliqua* (Saunders). Ces trois espèces présentent un ensemble de caractères qui montrent qu'elles sont bien adaptées à vivre sur les feuilles de Posidonies.

**Philbert M.** - Les Hydraires de la région malouine [*Hydraria ad regionem apud* Saint-Malo *pertinentia*]. 6 fig., Bull. Inst. Océanogr., 673, 1-36. Monaco (1935). **b - 845**

Dans la première partie de cette note l'A. a étudié les divers points explorés de la côte en énumérant pour chacun d'eux les Hydraires qui y furent récoltés, dans la seconde partie il a étudié les Hydraires eux-mêmes au point de vue soit morphologique, soit biologique.

La plupart des Hydraires récoltés appartiennent à des espèces communes, cependant certains d'entre eux n'avaient pas encore été cités sur la côte nord de Bretagne.

**Philbert M.** - Contribution à l'étude des Hydraires dans les Iles Anglo-Normandes [*Hydraria ad insulas Anglico-Normannas pertinentia. Contributio in eadem studenda*]. 1 fig., Bull. Mus. Nat. Hist. Natur., VII, 1, ser. 2, 85-88. Paris (1935). **b - 846**

Une excursion faite aux îles Anglo-Normandes au mois d'août 1934, montre que, dans la zone de balancement des marées, toute cette région est riche en Hydraires; mais le grand intérêt n'est pas tellement la diversité des espèces que la prolifération de certaines d'entre elles. Tel est le cas d'*Orthopyxis integra*, trouvé à l'île Lihon, de *Tubularia indivisa* et de *Campanularia flexuosa*, trouvés dans les grottes du Gouliot.

**Ranson G.** - Contribution à l'interprétation objective des formes et de leurs rapports dans la classe *Hydrozoa* (A suivre) [*Hydrozoa. Contributio in obiectivam interpraetationem formarum earumque correlationum*]. Bull. Mus. Nat. Hist. Natur., VII, 2 sér., 4, 247-253. Paris (1935). **b - 847**

Remarques introductoires sur la nécessité de recourir à toutes les techniques modernes en faisant de la Systèmatique la synthèse des résultats de nos études sur le déterminisme protoplasmique des particularités morphologiques. Discussion sur les relations entre les Méduses et les Hydroïdes et leur groupement. Exemple d'examination: *Campanularia caliculata* Hincks.

**Rawlinson R.** - *Edwardsia callianthus* spec. nov. A New British Species from Menai Straits [« *Edwardsia callianthus* » *species nova Anglica a freto proveniens* Menai *nomine*]. 11 figs., Journ. Mar. Biol. Assoc., XX, 1, 129-146. Plymouth (1935). **b - 848**

Diagnosis (colour, size, occurrence), description (external features, anatomy), habitat, habits, larvae and young individuals of the new species.

**Roever (de) J. W.** - Koraalriffen en -eilanden (in de baai van Batavia) [*De scopulis coralliferis insulisque in baja Batava*]. Onze Aarde, 147-155. Amsterdam (1935). **b - 849**

**Stephenson T. A.** - The British Sea Anemones. II. [*Anemones maris Britannici*]. 18 pls., 67 fig., xii + 426 + 16. Ray Soc. Vol. for the year 1934, CXXI, Dulau and Co., Ltd. London (1935). **b - 850**

Life habits with a special regard to the parasitism and burrowing habits in *Peachia*; reproduction, feeding and action of tentacles; distribution and ecology. Keys and summaries of the most important features of 40 spp. of British *Actinaria*. *Nematostella vectensis* n. sp. and *Edwardsia callianthus* Rawlinson are new for Great Britain.

**Stiasny G.** - I. *Acromitus hardenbergi* nov. spec., eine neue Rhizostome Meduse aus dem Malayischen Archipel. II. Ueber eine Anomalie von *Acromitus flagellatus* (Stiasny) [« *Acromitus hardenbergi* » *species nova ex Medusis rhizostomatibus ad archipelagus* Malacca *pertinentibus. II. De anomalia nova speciei* « *Acromitus flagellatus* » (Stiasny)]. 6 Abb., Zool. Meded., XVII, 1/2, 1-7; 8-10. Leiden (1934). **b - 851**

**Stiasny G.** - Die *Gorgonacea* der Siboga-Expedition. Supplement 1: Revision der *Plexauridæ* [*Gorgonaceae ad expeditionem* Siboga *pertinentes. Supplementum. I. Recognitio Plexauridarum*]. 7 Taf., vi + 106 S., E. J. Brill. Leiden (1935). **b - 852**

**Thiel M. E.** - Die Besiedlung des südatlantischen Ozeans mit Hydromedusen [*Hydromedusae. Quaestio de populatione in Atlantico Meridionali*]. Wiss. Ergebn. Dtsch. Atlant. Exped. « Meteor », 1925-27. XII, 2 Teil, Lief. 1, Walter de Gruyter & Co., Berlin & Leipzig (1933–35). **b - 853**

Die hier behandelten Hydromedusen gehören fast alle den Trachylinen an, deren ganzer Generationscyklus pelagisch ist. Drei verschiedene horizontelle Verbreitungsgruppen werden unterschieden. Die von Vf. frühere verfochtene Theorie über die Bipolarität pelagischer Organismen wird hier bestätigt.

**Weill R.** - *Halammohydra* Remane, genre d'hydrozoaires aberrant. Son cnidome et sa position systématique: affinités avec les siphonophores chondrophorides et avec *Protohydra leuckarti* Greef [« *Halammohydra* » *ex Hydrozoariis aberrantibus. Quaestio de cnidomate eiusque positione systematica affinitateque cum siphonophoris condrophoricis atque etiam cum specie* « *P. leuckarti* »]. 5 fig., Bull. Soc. Zool. France, LX, 1, 73-87. Paris (1935). **b - 854**

Dans le présent travail l'A. s'oppose catégoriquement à l'hypothèse de A. Remane qui a classé *Halammohydra*, le singulier hydrozoaire qu'il a découvert et décrit, parmi les Narcoméduses. L'étude du cnidome amène l'A. à rapprocher cette hydrozoaire aberrant aux siphonophores chondrophorides.

## Vermes.

**Allgén C.** - Freilebende Nematoden aus dem Trondhjemsfjord [*Nematodes liberi a fiordo* Trondhjem *provenientes*]. 1 Karte, 19 Taf., Capita Zool. IV, 2, 1-162. 's-Gravenhage (1933). **b - 855**

Beschreibung, Verteilung, Geschlechtsverhältnisse von etwa 177 Arten auf 76 Genera und 5 Familien verteilt. Viele neue Arten. Bibl.

**Allgén C.** - Ueber einige freilebende marine Nematoden aus den Sammlungen des Hamburger Zoologischen Museums [*Nematodes marini liberi ad collectiones musei zoologici Hamburgensis pertinentes*]. 4 Abb., Fol. Zool. & Hydrobiol., VIII, 1, 25-33. Riga (1935). **b - 856**

Die hier behandelten etwa 25 Arten stammen aus Neufundland, Island, Norwegen, der Murmanküste, Spitzbergen, Franz Josephs Land, den Nordfriesischen Inseln, der Kielerbucht, Helgoland, der Jadebucht und der Elbe-Mündung. *Viscosia Strandi* n. sp.

**Allgén C.** - Zur Kenntnis norwegischer Nematoden I [*De cognoscendis Nematodibus Norvegicis. I*]. Kgl. Norsk Vidensk. Selsk. Forh. 1934, VII, 6, 16-19. Trondheim (1935). **b - 857**

Verzeichnis über 29 Arten von *Enoploidea, Chromadoroidea, Araeolaimoidea* und *Monhysteroidea*.

**Allgén C.** - Zur Kenntnis Norwegischer Nematoden. II. Neue und wenig bekannte freilebende Nematoden aus Tarva [*De cognoscendis Nematodibus Norvegicis. II. Nematodes novi et parum cogniti liberi: Nematodes ex* Tarva]. Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 12, 35-38. Trondheim (1935). **b - 858**

Ergänzung einer vorhergehenden Arbeit über Nematoden aus Tarva (vgl. diese Verhandl. 1934, nr. 7). Beschreibung von 10 Formen, von denen die folgenden neu sind: *Dignathonema norvegicum* n. sp., *Tarvaia* n. g.: *T. Donsi* n. sp., *Penzancia paravelox* n. sp. und *Enoploides cephalophorus* (Ditl.) var. *tarvaensis* n. v.

**Allgén C.** - Zur Kenntnis Norwegischer Nematoden. III. Weitere Nematoden aus Tarva. [*De cognoscendis Nematodibus norvegicis. III. Nematodes ulteriores ex* Tarva]. Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 21, 74-77. Trondheim (1935). **b - 859**

Beschreibung von 6 Arten, von denen eine neu ist: *Desmoscolex litoralis* n. sp. Verwandtschaft und Unterscheidung.

**Augener H.** - Polychaeten aus den zoologischen Museen von Leiden und Amsterdam. I. II. III. IV [*Polychaeta ad musea zoologica Leidense et Amstelodamiense pertinentia*]. 32 Abb., Zool. Meded., XV, 3/4, 177-260; XVI, 1/2, 107-108; 3/4, 129-162 (1933); XVII, 1/2, 67-160 (1934). Leiden (1933-34). **b - 860**

Beschreibung und Verteilung von 271 Spezies von 130 Gattungen und 34 Familien. Die folgenden Formen sind neu: *Nephthys digitifera, Sphaerodorum philippi* v. *malayana, Nereis goajirana, N.* (*Perinereis*) *tobeloana, Ophelina hachaënsis, Asychis javanica, Sabellaria javanica, Hydroides* (*Eupomatus*) *gairacensis, Lumbriconereis janeirensis.*

**Baltzer F.** - *Echiurida.* — 85 Abb., Kükenthals Handb. Zool., II, Lief. 14, Teil 9, 62-160 (1931); II, Lief. 18, Teil 9, 161-168 (1934). Berlin (1931-34). **b - 861**

Vergleichende Morphologie, Anatomie, Embryologie, Entwicklung, Geschlechts-Dimorphismus, Regeneration, Oekologie, Biologie, Verteilung und Klassifikation.

**Cernosvitov L.** - *Oligochæta.* — Expéd. Antarctique belge, Résultats du Voyage de la « Belgica » en 1897-99 sous le Commandement de A. de Gerlach de Gomery. Rapp. Scient. Zool. Anvers (1935). **b - 862**

Huit espèces, toutes connues, ont été reportées.

**Coe W. R.** - New Nemerteans from Hawaii [*Nemertini novi ex insulis* Hawai]. 4 figs., Bernice P. Bishop. Mus., Occas. Papers, X, 18, 3-9. Honolulu (1934). **b - 863**

The collection studied contains: two species of *Baseodiscus* (*Taeniosoma*) reported from the off-shore waters, one hitherto undescribed species of the same genus (*B. Edmondsoni*) and one new species of *Lineus*: *L. albifrons* n. sp.

**Fauvel P.** - Sur quelques Syllidiens du Japon [*De Syllidibus Japonicis*]. 12 figs., Annot. Zool. Jap., XIV, 3, 301-315. (Contr. Seto Mar. Biol. Labor., n. 39). Tokyo (1934). **b - 864**

Description de 8 espèces de *Syllis*, et de quatre espèces appartenant à *Trypanosyllis, Odontosyllis, Exogone* et *Autosyllis*. L'A. donne la diagnose de *Syllis Okadai* n. sp. qui ressemble à *S. torquata*, et il considère que la *S. torquata* de Misaki ne représente qu'une variation de couleur de *S. Okadai* et qu'elle n'est pas identique aux espèces méditerranéennes.

**Fauvel P.** - Annélides polychètes de l'Annam [*Annelida polychaeta ex* Annam *provenientia*]. 8 fig., Mem. Pont. Acad. Sc. Novi Lyncaei, II, 3, 279-354. Città del Vaticano (1935). **b - 865**

**Holly M.** - *Polychaeta* from Hawaii [« *Polychaeta* » *insularum* Hawaii]. 15 fig., 1 pl., Bernice P. Bishop. Mus. Bull., 129, 1-33. Honolulu (1935). **b - 866**

This is the fifth in a series of publications resulting from investigations by Dr. Pietschmann, in different locations of Hawaii 1927-1928. Systematic list and diagnosis of about 15 species belonging to 6 families, 10 species and 2 subgenera of which are new. Most specimens are pelagic forms of nereids captured on the surface of the sea, especially by night.

**Horst C. J.** (van der) - Die Enteropneusten aus den Meeren der U. S. S. R. [*Enteropneusta in maribus ad URSS pertinentibus*]. (In Russ., Dtsch. Rés.). 7 Abb., Expl. Mers URSS, 19, 73-78. Léningrad (1933). **b - 867**

Kurze Uebersicht der dem Vf. von Prof. K. M. Derjugin, P. Uschakov und N. Tarassow zur Bearbeitung überlassenen Sammlung von Enteropneusten, in welcher folgende 3 verschiedene Arten erkannt worden sind: *Saccoglossus mereschkowskii* (Nic. Wagner), *Harrimania maculosa* Ritter und *Balanoglossus proterogonius* Belichov.

**Karling T. G.** - Ein Beitrag zur Kenntnis der Nemertinen des Finnischen Meerbusens [*De cognoscendis Nemertinis Sinus Finnici. Contributio*]. 24 Abb., Mem. Soc. pro Fauna et Flora Fennica 1933-1934, 10, 76-90. Helsinki (1933-35). **b - 868**

Untersuchungen von drei Arten, von denen eine neu ist: *Prostoma obscurum* Schultze, *Stichostemma graecense* Böhmig und *Sacconomertes arenosa* n. gen. n. sp. Morphologische Bemerkungen. Systematische Bemerkungen. Vergleich zwischen den drei Arten mit Beschreibungen. Nachtrag: Bemerkungen zu einer Arbeit von H. Friedrich, in welcher das Blutgefässsystem bei *Amphiporus cordiceps* Jensen mit dem von *Prostoma obscurum* und *Sacconemertes* verglichen wird.

**Karling T. G.** - *Haplobranchus balticus* n. sp. eine neue sedentäre Polychäte aus dem Finnischen Meerbusen [« *Haplobranchus balticus* » *nova species sessilis Sinus Finnici*]. 1 Abb., Mem. Soc. pro Fauna et Flora Fennica 1933-1934, 10, 242-244. Helsinki (1933–35). **b - 869**

Beschreibung der neuen Art. Verwandten. Andere Fundorte der *Halobranchus*-Arten.

**Karling T. G.** - Mitteilungen über Turbellarien aus dem Finnischen Meerbusen. *Dalyella nigrifrons* n. sp. [*Notitiae de Turbellariis Sinus Finnici. I.* « *Dalyella nigrifrons* »]. Mem. Soc. pro Fauna et Flora Fennica 1933-1934, 10, 388-391. Helsinki (1933–35). **b - 870**

Charakteristika, Vergleich mit anderen *Dalyellia*-Arten, Fundort.

**Karling T. G.** - Mitteilungen über Turbellarien aus dem Finnischen Meerbusen. 2. *Promesostoma cochlearis* n. sp. [*Notitiae de Turbellariis Sinus Finnici. II.* « *Promesostoma cochlearis* »]. 3 Abb., Soc. pro Fauna et Flora Fennica 1933-34, 10, 391-395. Helsinki (1935). **b - 871**

Beschreibung mit besonderer Berücksichtigung des männlichen Genitalapparates.

**McGuire I. P.** - Note on a New Species of Polychaete (*Ophelia cluthensis*] [*Nota de specie quadam nova ex Polychaetis:* « *Ophelia cluthensis* »]. Scott. Natur., 212, 45-46. Edinburgh (1935). **b - 872**

**Michaelsen W.** - Ein neuer Strand-Enchyträide von Helgoland [*Species quaedam nova ex Enchytraeidis in ora maritima insulae* Helgoland]. Zool. Anz., CVIII, 135-141. Leipzig (1934). **b - 873**

**Monastero S.** - Resistenza al digiuno e diminuzione di peso in un nemertino. (*Cerebratulus marginatus* Ren.) [*Patientia jejuni et deminutio ponderalis in quodam Nemertino:* « *Cerebratulus marginatus* »]. 1 tabl., Boll. Soc. Sc. Nat. e Econ., XVII, 1-7. Palermo (1935). **b - 874**

Breve descrizione del *Cerebratulus marginatus*. Tenuto un esemplare a digiuno per 14 mesi, l'A. constatò una diminuzione in peso a circa 1/12 di quello iniziale.

**Okada Yo K.** - *Amblyosyllis nigrolineata*, une nouvelle variété de l'*A. speciosa* Izuka [« *Amblyosyllis nigrolineata* », *varietas nova speciei* « *Amblyosyllis speciosa* »]. Annot. Zool. Jap., XIV, 3, 317-320. (Contr. Seto Mar. Biol. Lab. N 40). Kyoto (1934). **b - 875**

Aux Syllidiens japonais rapportés par Fauvel on peut aussi ajouter un nouveau type d'*Amblyosyllis* qui se trouve abondamment à Misaki. Description de la nouvelle variété.

**Okuda Sh.** - Two Species of the Sedentary Polychaete *Pectinaria* [*Descriptio specierum* « *Pectinaria bocki* » *et* « *Pectinaria japonica* » *ad Polychaeta sessilia pertinentium*]. 6 figs., Annot. Zool. Jap., XIV, 3, 321-326. Tokyo (1934). **b - 876**

Revised description of *Pectinaria bocki* and *P. japonica.*

**Okuda Sh.** - On a Tubicolous Polychaete living in Commensal with a Pycnogonid [«*Lecythorhynchus hilgendorfi*» *commensalis cum pycnogonide quodam*]. 3 figs., Annot. Zool. Jap., XIV, 4, 437-439. Tokyo (1934). **b - 877**

Information on a pycnogonid *Lecythorhynchus hilgendorfi* and his commensal *Spirorbis spirillum.*

**Onoda K.** - On *Pseudobonellia*, a New Genus of the Bonellian Echiuroids [« *Pseudobonellia* », *genus novum ex Echiuroideis Bonellianis*]. 1 fig., 1 pl., Annot. Zool. Jap., XIV, 4, 405-411. Tokyo (1934). **b - 878**

Author proposes the new generic name *Pseudobonellia* for *Bonellia misakiensis* Ikeda on account of the absence of ventral hooks. The diagnosis of the form is given. Type species: *P. misakiensis* (Ikeda).

**Prashad B.** - On a Collection of Echiuroids of the Genus *Thalassema* Lamarck in the Indian Museum, Calcutta [*Echiuroidea ad genus* « *Thalassema* » *pertinentia. Agitur de eorum collectione in museo Indiano,* Calcutta]. 1 pl. o. t., Records Ind. Mus., XXXVII, 39–43. Calcutta (1935). **b - 879**

Description of 5 spp. of *Thalassema*, 2 of which are new: *T. arkati*, and *T. marshalli.*

**Prenant M.** - Leçons de zoologie: Annélides [*Lectiones zoologicae. Annelida*]. 91 fig., 4 tabl., 95 pp., Actualités scient. et industr., 196, Hermann et Cie. Paris (1935). **b - 880**

Classification; écologie; organes de reproduction et d'excrétion, reproduction asexuelle et régénération. Détermination du sexe de *Bonellia*; descriptions particulières de plusieurs expèces; le prototype *Polygordius* et *Nereis* (L. S).

**Reisinger E.** - Ergebnisse einer von E. Reisinger & O. Steinböck mit Hilfe des Rask-Ørsted Fonds durchgeführten zoologischen Reise in Grönland 1926. *Proporoplana jenseni* nov. gen. nov. spec., ein morphologisch bedeutsamer Turbellarientyp [*Resultatus ex navigatione zoologiae causa in Groenlandiam, sumptibus* τοῦ Rask-Oersted *peracta, A. 1926. Agitur de* « *Proporoplana jenseni* » *nov. gen. nov. sp. inter Turbellaria, typo notando quoad morphologiam*]. 10 Abb., Vidensk. Medd., XCVIII, 243-259. København (1934–35). **b - 881**

Vorkommen, äussere Gestalt, Gehaben. Anatomie und Histologie. Systematische Stellung. *Proporoplana* und die Phylogenie der Turbellarien.

**Remane A.** (bearb. v.) - *Vermes.* - Dr. H. G. Bronns Klass. u. Ordn. d. Tier-Reichs wissenschaftl. darg. in Wort u. Bild. IV, Abt. 2: Aschelminthen. Buch 1: Rotatorien, Gastrotrichen und Kinorhynchen. Lief. 2, 3, 4; S. 161-576. Akad. Verlagsg. Leipzig (1932-34). **b - 882**

**Rioja E.** - Anélidos poliquetos procedentes de las campañas del Instituto Español de Oceanografia [*Annelida polychaeta provenientia a naviga-*

*tionibus oceanographicis per Institutum Hispanicum Oceanographicum peractis*]. 57 fig., Inst. Españ. Oceanogr., Trab. 13, 5-44. Madrid (1935). **b - 883**

Estudio de un interesante lote de anélidos poliquetos recogidos en las costas del litoral de la Peninsula, costas de Marruecos, etc. Su estudio ha conducido a determinar 80 especien distintas, algunas de las cuales son nuevas par la fauna español. Fam. *Aphroditidae, Phyllodocidae, Syllidae, Nereidae, Glyceridae, Eunicidae, Aricidae, Terebellidae, Sabellidae,* y *Serpulidae.*

**Schuurmans Stekhoven J. H. Jr.** - Additional Notes to my Monographs on the Freeliving Marine Nemas of the Belgian Coast. I and II [*Notae additiciae ad monographiam eiusdem auctoris de Nematodibus marinis liberis qui in litoribus Belgicis vivunt*]. 5 pls., 13 tabls., Mém. Mus. R. Hist. Nat. de Belgique, Mém. 72, 1-36. Bruxelles (1935). **b - 884**

Composition of the studied biocoenoses. Ecological remarks. Survey of the marine and brackwaterspecies. Systematic division of the orders *Chromadoroidea, Araeolaimoidea, Monhysteroidea;* and *Anguilludoidea.* About 30 species new to the Belgian fauna are listed.

**Sciacchitano I.** - Sulla distribuzione geografica degli Oligocheti in Italia [*Oligochaeta. Quaestio de eorum distributione geographica per Italiam*]. Arch. Zool. It., XX, 1-31. Napoli (1934). **b - 885**

L'A. ha riassunto tutto ciò che si è fatto sulla distribuzione geografica degli Oligocheti in Italia dopo la pubblicazione del Catalogo del Chinaglia, tenendo conto anche di quanto si era trovato prima, ma di cui non era stato fatto cenno da detto autore. Infine ha elencato in speciali tabelle tutte le notizie che si hanno sinora sulla distribuzione degli Oligocheti nelle varie regioni d'Italia.

**Sheppard E. M.** - On *Paradrepanophorus crassus* (Quatr.), a Nemertean Worm new to the British Fauna [« *Paradrepanophorus crassus* » *vermis Nemertinus novus pro fauna Britannica*]. Ann. and Magaz. Nat. Hist., 10 th. ser., XV, 86, 232-236. London (1935). **b - 886**

This species, commensal of *Staurocephalus rubrovittatus,* has been found at the south coast of Ireland.

**Skrjabin K. I.** - *Kutassicaulus* n. g., nouveau représentant des Nematodes de la sousfamille des *Dictyocaulinae* Skrjabin 1933 [« *Kutassicaulus* » *repraesentans novus inter Nematodes subfamiliae Dictyocaulinarum* Skrjabin *1933*]. 13 figs., Ann. Parasitol. Humaine et Comp., XI, 5, 359-363. Paris (1934). **b - 887**

*Kutassicaulus* (*Metastrongylidae, Dictyocaulinae*] basé sur *K. andreewoi* a été trouvé dans les organes de respiration et de circulation des *Phoca* dans la mer d'Okhotsk.

**Steinböck O.** - Die Turbellarienfauna der Umgebung von Rovigno. [*Turbellaria Arupinensia*]. (In tedesco, riass., ital.). 13 fig., 1 tav., Thalassia, I, 5, 1-35. Jena (1933). **b - 888**

Dal 24 marzo al 12 aprile 1932, venne constatata la presenza di numerose specie certe di Nematodi e di 12 specie incerte. La posizione sistematica di 4 delle 43 specie certe non è definitiva, non essendo ancora note in tutti i loro dettagli. Alle 43 specie certe raccolte dall'A. si devono aggiungere altre 6, già note per Rovigno. Durante l'estate verranno effettuate ulteriori ricerche, che completeranno i risultati ottenuti in primavera ed appena allora sarà possibile dare un quadro zoogeografico di questo territorio.

**Steinböck O.** - Turbellarien aus Ostgrönland [*Turbellaria Groenlandiae orientalis*]. 5 fig., Vidensk. Medd., XCVIII, 235-241. København (1934-35). **b - 889**

Beschreibung von vier Arten, von denen zwei neu sind: *Protomacrostomum groenlandicum* n. g. n. sp., *Notocaryoplana arctica* n. g. n. sp.

**Stiasny G.** - Beiträge zur Kenntnis der Enteropneusten des Golfes von Neapel [*Enteropneusta Sinus Neapolitani. Contributio in eadem cognoscenda*]. 10 Abb., Pubbl. Staz. Zool. Napoli, XV, 1, 71-105. Napoli (1935). **b - 890**

Uebersicht früherer Studien über *Tornaria*- Larven und deren Verhältnis zu den adulten Enteropneusten. Eingehende Beschreibung von vier verschiedenen *Tornaria*-Arten, von denen zwei für den Golf von Neapel neu sind. Die Lebensweise und das Vorkommen von *Glossobalanus minutus* Kow. im Golf von Neapel und im Golf von Pozzuoli.

**Stolte H. A.** - *Oligochaeta.* 310 Abb. Bronns Kl. u. Ordn. d. Tierreichs: Vermes IV, Abb. III, Buch 1, Lief. 1, 1-160; Lief. 2, 161-359. (1935). **b - 891**

**Wesenberg-Lund E.** - A Viviparous Brackish-water Ampharetid, *Alkmaria romijni* Horst from Ringkøbing Fjord [*De quodam Ampharetide viviparo in aqua salmacida:* « *Alkmaria romijni* » *in Fiordo* Ringkøbing]. 4 fig., Vidensk. Medd., XCVIII, 215-222. København (1934-35). **b - 892**

This species seems to be the first known true brackish-water annelid among the Ampharetids. Former founds. Description and comparison with *Samytha.* Geographical distribution and hydrological conditions in Ringkøbing Fjord.

**Zachs I.** - Polychaeten vom Nordjapanischen Meere (Bucht Peter der Grosse) [*Polychaeta regionis septentrionalis maris Japonici*]. (In Russ., Dtsch. Rés.). Expl. Mers URSS, 19, 125-137. Léningrad (1933). **b - 893**

Bearbeitung des seit 1925 im Nordjapanischen Meere, sowie in anderen Gewässern des Fernen Ostens der URSS, während planmässiger, hydrobiologischer Untersuchungen gesammelten Materials zum Studium der Polychaetenfauna des betreffenden Gebietes. Es sind 159 Arten beschrieben, von denen 28 als neue Formen aufgestellt sind.

## Echinodermata.

**Bassler R. S.** - The Classification of the *Edrioasteroidea* [*Edrioasteroidea. Distributio in classes*]. 1 pl., Smiths. Miscell. Collect. (Publ. 3301), XCIII, 8, 1-11. Washington, D. C. (1935). **b - 894**

Through the study of the Springer and Ulrich collections of *Edrioasteroidea* in the National Museum, and of material lent by other Institutions, the writer has been enabled to review the structure of most of the known genera and species of this group. The old genera are briefly redefined and six new generic names are proposed.

**Boone** - *Echinodermata.* Scientific Results of the World Cruise of the Yacht « Alva » [*Echinodermata inter navigationem pamphilii* « *Alva* » *collecta*]. Bull. Vanderbilt Mar. Mus., VI, 264 pp. Richmond, Va. (1935). **b - 895**

The *Echinodermata* (four Starfishes and ten Sea-Urchins) are described in the second part as particularly as the *Crustacea.* They belong to the littoral fauna of the Indo-Pacific region, e. g. the coral reefs and tidal zone of

the Palm Islands, Queensland, Durian Straits, Bali, New Caledonia, Fijj Archipelago, Marquesas Islands, Samoa, Society Islands and the volcanic shores of Galapagos. New distribution records presented. Index.

**Chang Feng-Ying** - Report on the Holothurians collected from the Coast of China [*Relatio de Holothuriis collectis in litoribus Sinensibus*]. 20 figs., 3 pls., Contr. Inst. Zool. Nat. Acad. Peiping, II, 1, 1-52. Peiping (1934). **b - 896**

Diagnosis, description and distribution of every species, keys to families and genera. *Molpadia chinensis* n. sp.

**Clark A. H.** - On a Collection of Crinoids from the Raffles Museum, Singapore [*Crinoidea. Collectio nova ad Museum* Raffles, Singapore, *pertinens*]. Proc. Biol. Soc. Washington, 47, 9-14. Washington (1934). **b - 897**

12 spp. are reported. *Reometra* n. gen. (*Oreometra* Clark).

**Clark H. L.** - Some new Echinoderms from California [*Echinodermata nova Californiensia*]. Ann. and Magaz. Natur. Hist., XV, 85, 120-129. London (1935). **b - 898**

*Dendraster excentricus* v. *elongatus* n. sp., *Ophiacantha eurythra* n. sp., *Amphiodia psara* n. sp.

**Clark H. L.** - The Holothurian Genus *Caudina* [*Caudina genus Holothurianum*]. Ann. and Magaz. Natur. Hist., XV, 86, 267-284. London (1935). **b - 899**

Author criticizes the old classification of Heding giving here a new definition of *Caudina* with key to 7 spp. of *Caudina* and to 3 spp. and 3 vars. of *Paracaudina*.

**Dieuzeide R.** - Les Échinides réguliers de la Baie de Castiglione [*Echinidae regulares ad bajam* Castiglione *pertinentes*]. 1 fig., Stat. Aquicult. et Pêche Castiglione (1933), 2, 75-81. Alger (1935). **b - 900**

Énumération des Echinides: *Dorocidaris papillata*, *Centrostephanus longispinus*, *Arbacia aequituberculata*, *Echinus acutus*, *E. melo*, *Psammechinus microtuberculatus*, *Paracentrotus lividus*, *Sphaerechinus granularis*.

**Domantay Josè S.** - Four additional Species of littoral *Holothurioidea* of Port Galera Bay and adjacent Waters [*Holothurioidea ad bajam* Port Galera *aquasque adiacentes pertinentia. Species quatuor additiciae*]. 1 pl. Univ. Philipp. Nat. and Appl. Scient. Bull. IV, 1, 109-115. Manila (1934). **b - 901**

2 spp. of *Holothuria*, 1 sp. of *Labibodemas* and 1 sp. of *Pseudocucumis*, *P. roxasi* n. sp.

**Fisher W. K.** - Note on a Starfish from Christmas Island, Indian Ocean [*Nota de « Asterias » ab insula proveniente nomine* Christmas, *in Oceano Indiano*]. Bull. Raffles Mus. 9, 74. Singapore (1934). **b - 902**

New type locality (Indo-Pacific) for *Neoferdina cumingii* Gray.

**Heding S. G.** - *Myriotrochus eurycyclus* n. sp. A New Apedate Holothurian from the Kara-Sea [« *Myriotrochus eurycyclus* » *n. sp. ex Holothuriis sine pedibus a Mare Karensi proveniens*]. Figs. on pl., Vidensk. Medd., XCVIII, 229-234. København (1934-35). **b - 903**

Diagnosis, comparison with *M. rinkii* and *M. mitsukurii* Ohshima.

**Heding S. G.** - *Holothurioidea*. Pars I. *Apoda*. - *Molpadioidea*. - *Gephyrothurioidea*. — 8 tabl., The Dan. Ingolf-Exped., IV, 9, 84 pp., Zool. Mus. Univ. Copenhagen (1935). **b - 904**

**Mortensen Th.** - *Echinodermata*. – 1 fig., Contr. à l'étude de la Faune de Madagascar. III, ed. par G. Petit, Faune Colon. Franç., IV, 5, 590-596. (1934). **b - 905**

22 espèces ont été reportées.

**Mortensen Th.** - New *Echinoidea*. Preliminary Notice [*Echinoidea nova. Nota prior*]. Vidensk. Medd., XCVIII, 161-167. København (1934-35). **b - 906**

Personal remarks. Preliminary description of about 24 new genera, species and var., which will be described in detail in the forthcoming Part II of the Monograph of the *Echinoidea*.

**Mortensen Th.** - A Monograph of the Echinoidea. II. *Bothriocidaroida*, *Melonechinoida*, *Lepidocentroida* and *Stirodonta* [*Monographia de Echinoideis*]. 89 pl., 377 fig., 647 pp. Copenhagen (1935). **b - 907**

This work dealing with the taxonomy of the Echinoids departs widely from the scheme of classification now current; so for instance, the old Paleozoic order *Perisschoechinoidea* is broken down and some of its families united with younger groups to form new orders, to three of which most of this monograph is dedicated. *Bothriocidaris* is no more considered as the ancestral type but only a resembling form not genetically connected with the Echinoids.

**Nümann W.** - Untersuchungen der Skelette an Varianten, Bastarden und Chimären von regulären und irregulären Seeigeln (*Echinus miliaris*, *E. microtuberculatus*, *Echinocyamus pusillus*, *Echinocardium cordatum*) [*Inquisitiones de scheletro in larvis Echinoideorum permixtis et chimaeris, regularibus et irregularibus*]. 49 Abb., Ztschr. Indukt. Abstamm. - u. Vererb.-lehre, LXV, 3/4, 447-522. Berlin (1933). **b - 908**

Eingehende Beschreibung und Verschiedenheiten im Bau der Skelette, Einfluss der Temperatur auf die Skelettbildung. Kreuzungsversuche und deren Bedeutung für die Identifikation der Hybridtypen.

**Ohshima H.** - Eine Holothurie mit zwei Afteröffnungen [*Agitur de Holothuria, duobus praedita foris analis*]. 2 Abb., Annot. Zool. Jap., XIV, 3, 327-330. Tokyo (1934). **b - 909**

Beschreibung eines getrockneten Exemplares von *Holothuria argus* von 45 mm. Länge, welches zum Verkauf vorbereitet war. Nach einer Einwässerung von zwei Tagen erreichte es eine Länge von 80 mm., und Vf. konnte feststellen, dass das beobachtete Spezimen zwei Afteröffnungen besass.

**Ohshima H.** - A Gourd-Shaped Sea-Urchin [*Agitur de Echino instar cucurbita*]. 1 pl., Annot. Zool. Jap., XIV, 3, 331-337. Tokyo (1934). **b - 910**

This specimen, referred with some doubt to *Strongylocentrotus intermedium*, possesses an elongated body axis and the ambulacral and interambulacral plates are arranged obliquely or bent here and there. The actinostome is small.

**Reid D. M.** - The Range of the Sea-Urchin, *Echinus esculentus* [*Spatium in quo habitat « Echinus esculentus »*]. Journ. Animal. Ecol., IV, 7-16. Cambridge (1935). **b - 911**

**Rivera Gallo V.** - Adición a las notas sobre « Algunos Equinodermos de Groenlandia » [*Additio ad Notas « De Echinodermatis Groenlandicis »*]. 2 fig., 5 fotos. Inst. Españ. Oceanogr., Notas y Résum., II, 87, 1-8. Madrid (1935). **b - 912**

Una más minuciosa separación del material heterogéneo remitidos da D. José J. Maffei (v. publ. en 1931 de las « Notas ecc. ») permite a lo autor de ampliar aquellos datos, agregando a las especies ya citadas algunas otras. Las especies están distribuídas en las clases Astéridos, Ofiúridos y Holotúridos.

**Rivera G. V.** - Primera campaña biológica a bordo del « Xauen » en aguas de Mallorca (Abril 1933). Equinodermos [*De prima navigatione biologica navi* « Xauen » *peracta ad Balearem Majorem* (*Mense Aprili 1933*). *Echinodermata*]. Trab. Inst. Españ. Oceanogr., 10, 83-86. Madrid (1934). **b - 913**

Crinoides, Astéridos, Ofiuridos, Equinidos, Holoturidos.

**Russo A.** - La classificazione degli Echinodermi e l'opera didattica di C. Emery nel 50º anno del suo Trattato di zoologia [*Echinodermata. Agitur de eorum distributione in classes atque etiam de opere praeceptivo professoris* C. Emery, *Lº recurrenti anno ab eius Tractatu de Zoologia*]. Monit. Zool. Ital., XLVI, 4, 97-101. Firenze (1935). **b - 914**

**Russo A.** - *Crinoidea, Asteroidea, Ophiuroidea, Echinoidea* raccolti dalla R. N. Amm. Magnaghi in Mar Rosso e zone viciniori nel 1923-24 [*Crinoidea, Asteroidea, Ophiuroidea, Echinoidea collecta a R. N.* « Magnaghi » *in navigando per Mare Rubrum regionesque adiacentes a 1923 ad 1924*]. Rel. Cons. Soc. Gioeniae Catin. Nat. Scient., 68, serie II, 16-20. Catania (1935). **b - 915**

Sono riprodotte in un solo elenco le specie di Echinodermi, già pubblicate in tre note nel 1929, 1931, 1932 (R. Comit. Talassogr., Mem. CLXVI, Mem. CLXXXV, Mem. CXCIV). Sono rappresentati esemplari della fam. *Comatulidae* (Crinoidea), fam. *Astropectinidae, Echinasteridae, Linckiidae, Asterinidae* (Asteroidea), fam. *Ophiolepididae, Amphiuridae, Ophiotrichidae, Ophiacanthidae* (Ophiuroidea), fam. *Diadematidae Toxopneustidae, Echinidae, Cidaridae, Clypeastridae, Laganidae, Scutellidae, Spatangidae* (Echinoidea).

**Saveljeva T.** - Zur Kenntnis der Holothurienfauna des Japanischen und Ochotskischen Meeres [*Contributio in cognoscendam faunam Holothuriarum Maris Japonii et Maris* Okhotsk]. (In Russ., Dtsch. Rés.). 11 Abb., Expl. Mers URSS, 19, 37-58. Léningrad (1933). **b - 916**

Vorläufige Uebersicht der Ergebnisse des Studiums einer Sammlung von Holothurien aus dem Japanischen und Okhotskischen Meere, welche aus den Expeditionen des Hydrologischen Instituts zu Leningrad und des Pazifischen Instituts für Fischwirtschaft zu Wladivostok stammen. Die Sammlung besteht aus 314 einzelnen Exemplaren, welche 24 verschiedenen Arten angehören. Von den beschriebenen Arten sind die zwei folgenden, *Pannychia moseleyi mollis* n. subsp. und *Trochostoma orientale* n. sp., neu.

**Tortonese E.** - Gli Echinodermi del Museo di Torino. Parte II. Ofiuroidi [*De Echinodermatis Musei Taurinensis*]. 8 tav., Boll. Mus. Zool. e Anat. Comp. R. Univ. Torino, XLIV, ser. III, 45, 13-65. Torino (1934). **b - 917**

Nota illustrativa e zoografica sulla piccola raccolta di Ofiure (53) conservate nel Museo Zoologico di Torino.

**Tortonese E.** - Asterie ed Echini della Patagonia e Terra del Fuoco [*Asteriae et Echini Patagonici et ad* Tierra del fuego *pertinentes*]. 2 fig., Boll. Mus. Zool. Anat. Comp. R. Univ. Torino, XLIV, ser. III, 51, 203-212. Torino (1934). **b - 918**

Il materiale studiato comprende due specie di Asterie (*Sporasterias antarctica* Lütk e *Cosmasterias lurida* Phil.) e cinque Echini (*Arbacia Dufresnii* Blainv., *Pseudechinus magellanicus* Phil., *Loxechinus albus* Mol., *Caenocentrotus gibbosus* Ag. Des., *Abatus cavernosus* Phil.) provenienti dalla Patagonia, particolarmente dal Chubut e dallo stretto di Magellano.

## Mollusca.

**Abe Noboru** - The Colony of the *Littorina*: *Littorivaga brevicula* (Philippi) [*De colonia Littorinis formata: « Littorivaga brevicula »*]. 5 figs., 9 tabl., Sc. Rep. Tôhoku Imp. Univ., fourth ser., Biol., 279–296 (Contr. Mar. Biol. Stat. No. 115. Asamushi, Aomori–Ken). Sendai (1935). **b - 919**

Distribution, positions and directions of the colonies compared with those of *Acmaea dorsuosa* Gould in relation to the high-water line. Experiments on colony formation. General remarks on the habitats and movements of *Littorina*.

**Adam W.** - Notes sur les Céphalopodes. V. *Ozaena cirrhosa* (Lamarck, 1798) sur la côte belge [*De cephalopodis. V. « Ozaena cirrhosa » in litoribus Belgicis*]. Bull. Mus. R. Hist. Natur. Belgique, X, 43, 1-3. Bruxelles (1934). **b - 920**

Description et dimensions d'un exemplaire mâle d'*Ozaena cirrhosa* recueilli à marée basse dans une mare, sur l'estran à l'Est d'Ostende. Cette espèce n'avait jamais été signalée sur la côte belge.

**Baba Kikutarô** - A Pelagic Nudibranch, *Cephalopyge orientalis* n. sp. from Japan [*De Nudibranchiatis pelagicis. « Cephalopyge orientalis » a Japonia proveniens*]. 1 pl., Annot. Zool. Jap., XIV, 1, 157-163. Tokyo (1933). **b - 921**

Comparison with other spp. of *Cephalopyge*.

**Bertolini F.** - Nota sulla sistematica dei *Phylliroidae* [*Phylliroidae. Notae de systematica*]. 4 fig., Pubbl. Staz. Zool. Napoli, XV, 1, 60-70. Napoli (1935). **b - 922**

Notati per la prima volta nel plancton del Golfo di Napoli vari esemplari di *Phylliroë*, l'Autore ritiene di identificarli con la *Ph. atlantica* e la *Ph. Sanzoi*, che sarebbero fra loro sinonimi.

La fam. *Phylliroidae* comprende il gen. *Phylliroë*, con le specie *Ph. bucephala, Ph. atlantica, Ph. amboinensis, Ph. punctulata, Ph. rosea:* il gen. *Acura*: *A. pelagica* e *A. lanceolata*; il gen. *Boopsis*; *B. mediterranea, B. trematoides:* il gen. *Ctilopsis: C. picteti*.

**Bouxin J. & Legendre R.** - Céphalopodes du genre *Vitreledonella* trouvés dans des estomacs de Germons, au large du Golfe de Gascogne [*De Cephalopodis ad genus «Vitreledonella» pertinentibus repertis in stomachis alicuius tynni speciei, longe a litoribus Vasconicis*]. C. R. Acad. Sc., CC, 8, 692-694. Paris (1935). **b - 923**

En se basant sur l'examen des proies contenues dans les estomacs de Germons pêchés au large du Golfe de Gascogne, l'Auteur signale trois Céphalopodes appartenant au genre *Vitreledonella* Joubin, dont on ne connaissait

jusqu'à présent que 5 individus répartis en 4 espèces. Les individus observés se rapprochent à *V. translucida*, mais en même temps, étant donné la disposition des ventouses sur les bras, se rapprochent également de *V. pellucida*.

**Brown H.** - A Study of a Tectibranch Gasteropod Mollusc: Life-history of *Philine aperta* (L.). [*Studium mollusci cuiusdam Gasteropodi tectibranchiati. Historia speciei « Philine aperta »*]. Trans. R. Soc. Edinburgh, LVIII, Pt. I, 9, 179-210. Edinburgh (1934). **b - 924**

Detailed anatomical description of the development of *Philine*: the egg, the veliger, the larva, the metamorphosis, the adult.

**Clemens W. A.** - The *Cephalopoda* of British Columbia Waters [*Cephalopoda Columbiae Britannicae*]. Ann. Rep. Biol. Bd. Canada, 1933, 74. Ottawa (1934). **b - 925**

Brief account of the results of an examination of the collection of *Cephalopoda* occurring along the coast of British Columbia, belonging to the Museum of the Pacific Biological Station, Nanaimo.

**Clench W. J.** - Report on the Mollusks [*Relatio de Molluscis*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College, 1934-1935, 11-12. Cambridge U. S. A. (1935). **b - 926**

Expeditions. Collections: new valuable accessions and revisional work.

**Coen G.** - Due nuovi Lamellibranchi adriatici [*De duobus novis Lamellibranchiatis hadriaticis*]. 2 tav., Notiz. Ist. Biolog. Rovigno, 14, 3-6. Venezia (1934). **b - 927**

L'Autore descrive due nuove specie di Lamellibranchi raccolti presso Rovigno: *Uncidens arupinensis* e *Clathroconcha istriensis*.

**Coen G.** - Recente rinvenimento adriatico della *Mitra* (*Episcomitra*) *zonata* Marryatt [*De recentiore inventione in Hadriatico conchae « Mitra (Episcomitra) zonata-concolor »*]. 1 tav., Notiz. Ist. Biolog. Rovigno, 15, 3-5. Venezia (1934). **b - 928**

Descrizione di *Mitra* (*Episcomitra*) *zonata-concolor*, che rappresenta una nuova varietà di questa rarissima conchiglia, trovata presso Rovigno. L'animale, di mm. 86 di lunghezza, è il più lungo fra i 20 esemplari sino ad oggi conosciuti.

**Cuénot L.** - La seiche commune de la Méditerranée. Etude sur la naissance d'une espèce [*Sepia communis maris Mediterranei. Studium de ortu speciei*]. 1 fig., Arch. Zool. Exp. et Gén. 310-330. Paris (1933). **b - 929**

Comme il existe deux espèces de seiches dans l'Atlantique bien divisée par leurs mœurs et qui ne se croisent pas entre elles, ainsi il existerait dans la Méditerranée deux formes de seiches séparables par leurs caractères sexuels.

**Dalmon J.** - Note sur la biologie du pétoncle. (*Chlamys varia* L) [*De biologia speciei « Chlamys varia »*]. 8 fig., Rev. Trav. Off. Scient. Pêches Marit., VIII, 3, n. 31, 268-281. Paris (1935). **b - 930**

Le pétoncle (*Chlamys varia* L.) est un mollusque dont la biologie est peu connue; l'Auteur résume sa bionomie et indique les caractères spécifiques qui permettent de le distinguer des autres bivalves voisins, et surtout la croissance de la coquille, puisque c'est, en effet, sur cette dernière que s'inscrivent toutes les phases de la vie de ce mollusque. Observation, d'une manière pratique, des zones d'accroissement de la coquille, qui fournissent d'utiles renseignements sur l'âge et la valeur comestibles de l'animal. Le matériel a été récolté sur le Banc de la Flotte (Ile de Ré) à différentes saisons, pour avoir tous les stades d'évolution du test.

**Dautzenberg Ph.** - Gastéropodes marins. 1º *Terebridae*. 2º *Mitridae*. Résultats Scientifiques du voyage aux Indes Orientales Néerlandaises [*Gasteropoda marina. 1º Terebridae. 2º Mitridae. Resultatus e navigatione in Indias orientales Hollandicas scientiae causa*]. 4 Pls., Mém. Mus. R. Hist. Natur. Belgique, II, 17, 1-208. Bruxelles (1935). **b - 931**

On a traité les familles des *Terebridae* et des *Mitridae*, cette dernière avec les genres *Mitra*, *Strigatella*, *Turricula*, *Cylindromitra* et *Imbricaria*. Pour chaque espèce l'Auteur a donné la liste des synonymes, la localité, la dispersion géographique et les remarques.

**Dieuzeide R.** - Contribution à l'étude de deux types de Gastéropodes Pulmonés marins: *Siphonaria algesirae* Quoy et Gamiard; *Gadinia garnoti* Payrandeau [*Contributio in typos duos ex Gasteropodis pulmonatis marinis studendos: « Siphonaria algesirae », « Gadinia garnoti »*]. 13 pl., 41 fig., Stat. Aquic. et Pêche Castiglione (1934), 1/2, 7-196. Alger (1935). **b - 932**

Étude anatomique et biologique sur *Siphonaria algesirae et Gadinia garnoti*. L'Auteur a pu suivre les mœurs, la fonte et la segmentation de l'œuf jusqu'à l'éclosion de la larve véligère. Observations personnelles, à l'aide aussi de l'histologie, sur les rapports des organes entre eux. Comparaison entre *Gadinia* et *Siphonaria;* les divergences ne sont pas suffisantes pour séparer les deux types, qui doivent être considérés comme des Pulmonés ayant fait retour à la vie marine. Bibl.

**Dons C.** - Norges strandfauna V. Chitonider [*De fauna litorea Norvegica. V. Chitonida*]. 1 Karte, Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 2, 4-7. Trondheim (1935). **b - 933**

*Callochiton laevis* Mont., *Acanthochiton fascicularis* Lin., *Trachydermon cinereus* Lin., *Lepidopleurus asellus* Spgl., *Tonicella marmorea* Fabr., *T. rubra* Lin., *Chondropleura alba* Lin. Fundorte und Grenzen.

**Erdmann W.** - Untersuchungen über die Lebensgeschichte der Auster. Ueber die Entwicklung und die Anatomie der «ansatzreifen» Larve von *Ostrea edulis* mit Bemerkungen über die Lebensgeschichte der Auster [*Investigationes in Ostreae cyclum vitalem. Agitur de progressione corporea deque anatomia larvarum maturarum quae sunt paratae ut Ostreae eduli adherescant. Observationes adiunguntur de Ostreae cyclo vitali*]. 8 Taf., 5 Abb., Wiss. Meeresunters. hrsg. Komm. wiss. Unters. Dtsch. Meere i. Kiel u. Biol. Anst. Helgoland, N. F., Abt. Helgoland, XIX, 3, 6, 25 S. Kiel & Leipzig (1935). **b - 934**

Ueberblick über die Entwicklung bis zur planktonischen Larve und Bemerkungen zur Lebensgeschichte. Konservierungs-und Färbemethoden. Ausrichtung des Larvenkörpers im Raum. Die Entwicklung der ansatzreifen Larven: morphologische Uebersicht, Entwicklung der einzelnen Organe. Bibl.

**Friedberg W.** - *Turritella scalaria* de Buch und einige Bemerkungen über evolute Gastropodenschalen [*Species « T. scalaria » observationesque quoad conchas evolutas Gasteropodorum*]. 1 Fig., 1 Taf. a. T., Bull. Int. Acad. Polon. Sc. & Lettres,

Cl. Sc. Mathém. & Natur., 3/5, B II, 137-144. Cracovie (1935). **b - 935**

Vf. hatte in zwei seiner Arbeiten *T. scalaria* als eine Varietät der *T. bicarinata* beschrieben; im vorliegenden Artikel, an Hand eines grösseren Materials, schlägt er vor, diese Form als eine selbständige Art zu betrachten.

**Grabau Amadeus W.** - Studies of *Gastropoda* [*De Gasteropodis studia*]. viii + 159 pp., Nat. Univ. Press. Peking (1935). **b - 936**

**Haas F.** (bearb. v.) - *Mollusca* - Dr. G. Bronns Klass. u. Ordn. d. Tier–Reichs wissenschaftl. darg. in Wort u. Bild. III, Abt. 3, *Bivalvia*. Lief. 4, 385-544. Akad. Verlagsg. Leipzig (1933-34). **b - 937**

**Hertling H.** - Der Seehase (*Aplysia*) bei Helgoland [*Aplysia apud* Helgoland]. 1 Abb., Natur u. Volk., LXV, 3, 103-108. Frankfurt a. M. (1935). **b - 938**

Während der Monate Juni-September 1933 wurden auf der Nord-Binnenreede von Helgoland verschiedene Exemplare von *Aplysia punctata* gefangen und dann in das Aquarium der Biologischen Anstalt geführt. Beobachtungen über das Leben der Tiere im Aquarium: Laichablage usw.

**Hobson A. D., Storrow B., Leach T. S. & Wright F. S.** - A Survey of the Mussel Beds at Blyth, Budle Bay and Holy Island [*De inspectis banchis Molluscorum in* Blyth, *Baja* Budle *in* Holy Island]. 3 maps, Dove Mar. Labor., Rep. Year End. July 31st., 1935, Ser. 3, 3, 27-36. Newcastle o. Tyne (1935). **b - 939**

Results of the survey of the three areas in order to determine their importance as sources to add to the bait supplies of the district. Some considerations concerned with attempt to develop these beds.

**Hoffmann H.** (bearb. v.) - *Mollusca* (Weichtiere). Dr. G. Bronns Klass. u. Ordn. d. Tier-Reichs wissenschaftl. darg. in Wort u. Bild. III. Abt. 2: *Gastropoda*. Buch 3: *Opisthobranchia*. Lief. 1, S. 152. Akad. Verlagsg. Leipzig (1932-1934). **b - 940**

**Jensen A. S. & Spärck** - Blöddyr. II. Saltvandsmuslinger [*Mollusca II. Bivalvia aquae salsae*]. 175 figs., Danmarks fauna 40, 1-208. Gads forlag. København (1934). **b - 941**

Descriptions with keys to families, genera, and species of *Lamellibranchiata, Bivalvia, Pelecypoda,* and *Acephala.*

**Johnson Ch. W.** - List of marine Mollusca of the Atlantic Coast from Labrador to Texas [*Index Molluscorum marinorum ad litora atlantica pertinentium a* Labrador *ad* Texas]. Proc. Boston Soc. Nat. Hist., XL, 1, 1-204. Boston (1934). **b - 942**

**Joubin L.** - Sur les Céphalopodes planctoniques de l'Océan Atlantique (croisières du «Dana», 1921-1922) [*De Cephalopodis planctonicis Oceani Atlantici* (*Navigatio navis* «Dana» *1921-1922*)]. C. R. Acad. Sc., CC, 23, 1896-1897. Paris (1935). **b - 943**

Ces Céphalopodes, exclusivement planctoniques, forment la plus grande collection du monde, environ 30.000 échantillons. Leur étude conduit l'Auteur à formuler la conclusion que les Céphalopodes planctoniques sont des animaux abondants, très prolifiques, dont les larves peuplent en foule les eaux éclairées de l'Océan Atlantique.

**Keep J.** (rev. by Bailey J. L. Jr.) - West Coast Shells [*Mollusca ad litora occidentalia pertinentia*]. 334 figs., xi + 350 pp. Stanford Univ. Press (Stanford Univ. Calif.) & Humphrey Milford & Oxford Univ. Press. (London). (1935). **b - 944**

New edition recommended by the American Malacological Union of the well–known book appeared in 1887. Manual of the principal marine and other Molluscs of Alaska, British Columbia, and the United States west of the Sierra. The nomenclature has been brought up to date und several new illustrations added.

**Kolesnikov V.** - Ueber die Sarmatische Fauna Bulgariens [*De fauna sarmatica Bulgariae*]. (In Russ. u. Deutsch). 1 Tab., C. R. Acad. Sc., U. R. S. S., II, 7, 428-430. Léningrad (1934). **b - 945**

Ergebnisse eines Studiums der dem Vf. aus Bulgarien übersandten sarmatischen Muscheln. Namen der Muscheln mit Ortbenennung ihres Vorkommens sind in der beigelegten Tabelle angegeben. Die folgenden Arten sind als neu bezeichnet: *Cardium lithopodolicum* Dub. var. *bulgarica* nov. var., *C. gočevi* n. sp.; sie sind vom Vf. in seiner Arbeit « Neue Arten sarmatischen Mollusken » beschrieben worden.

**Kubo Itsuo** - Catch of Octopods in Relation to Precipitation and Air-Temperature in Inland Sea of Japan [*De captandis Octopodis pro praecipitatione et aëris temperatura in mari japonico*]. (In Jap., Engl. Rés.). 2 tabl., 1 graph, Bull. Jap. Soc. Scient. Fish, IV, 4, 253-258. Tokyo (1935). **b - 946**

From the researches undertaken it seems that the precipitation during the breeding season of a certain year has a certain influence on the size of the next year's catch of Octopods (*Polypus vulgaris*) especially in the prefecture Hirosima, and also in Kagawa and Okayama.

**Kuroda T.** - A list of the Genera of Japanese *Mollusca* [*Index generum Molluscorum Japoniensium*]. (In Jap. and Engl.). Venus III, 5, 281-289 (1932); IV, 1, 44-54; 3, 184-191; 4, 258-265 (1933-34). Kyoto (1932 & 1934). **b - 947**

**Kuroda T.** - On Some Rare Shells from Sagami Bay Collected by His Majesty the Emperor of Japan [*De quibusdam Molluscis raris a baja* Sagami *provenientibus collectis ab Imperatore Japoniensium*]. (In Jap.). Venus, IV, 4, 204-208. Kyoto (1934). **b - 948**

**Lamy E.** - Sobre algunos Moluscos procedentes de la campañas del Instituto Español de Oceanografia [*De quibusdam Molluscis a navigatione provenientibus per Institutum Oceanographicum Hispanicum peracta*]. Notas y Resúm., ser. II, 78, 1-13. Madrid (1934). **b - 949**

Lista de los Moluscos capturados: *Gastropoda, Amphineura, Scaphopoda, Pelecypoda.* Lista de pescas.

**Lamy E.** - Primera campaña biológica a bordo del «Xauen» en aguas de Mallorca (Abril 1933). Moluscos [*De prima navigatione biologica navis* «Xauen» *ad Balearem Majorem* (*mense Aprili 1933*). *Mollusca*]. Trab. Inst. Españ. Oceanogr. 9, 80-82. Madrid (1934). **b - 950**

Lista de las especies de las siguientes familias: *Calyptraeidae, Turbinidae, Trochidae, Fissurellidae, Pectinidae, Arcidae, Carditidae, Cardiidae, Cyprinidae, Veneridae, Myidae, Tellinidae.*

**Lamy E.** - Notes sur les espèces Lamarckiennes des genres *Crenatula, Malleus* et *Vulsella* [*Notae de speciebus Lamarchianis generum « Crenatula », « Malleus »* et *« Vulsella »*]. Bull. Mus. Nat. Hist. Natur., VII, 1, 64-70. Paris (1935). **b - 951**

Considérations au sujet des sept espèces de *Crenatula*, des six espèces de *Malleus* et sept de *Vulsella* admises par Lamarck.

**Lamy E.** - Notes sur les espèces Lamarckiennes des genres *Avicula* et *Meleagrina* [*Notae de speciebus Lamarchianis generum « Avicula » et « Meleagrina »*]. Bull. Mus. Nat. Hist. Natur., VII 2, 127-134. Paris (1935). **b - 952**

Considérations au sujet des 15 espèces d'*Avicula* et 2 de *Meleagrina* décrites par Lamarck dans l'« Histoire Naturelle des Animaux sans vertèbres ».

**Lebour M. V.** - The Breeding of *Littorina neritoides* [*Reproductio speciei «Littorina neritoides»*]. 11 figs., Journ. Mar. Biol. Assoc., XX, 2, 373-378. Plymouth (1935). **b - 953**

The A. reports her own researches as well as those of Dr. Linke, by which it has been ascertained that *Littorina neritoides* undoubtedly lays planktonic egg capsules. Description and figures of the egg capsules.

**Leloup E.** - Contribution à la connaissance de la faune des Chitons de Villefranche-sur-mer et des environs (France, Méditerranée) [*Contributio in cognoscendam faunam Chitonidarum ad* Villefranche-sur-mer *et vicina loca pertinentium*]. 16 fig. Bull. Mus. R. Hist. Natur. Belgique, X, 47, 1-20. Bruxelles (1934). **b - 954**

Les Chitons qui font l'objet de cette note se répartissent en cinq espèces: *Lepidopleurus cajetanus, Ischnochiton Rissoi, Callochiton laevis, Chiton olivaceus, Acanthochiton aeneus.* Ces espèces sont connues en Méditerranée.

**Le Souef A. S. & Joyce K. A.** - Habits of the Sydney Octopus (*Octopus cyaneus*) in Captivity [*Consuetudines speciei «Octopus cyaneus» in captivitate*]. 1 pl., Austral. Zool., VII, 5, 373-376. Sydney (1933). **b - 955**

Description of the egg mass and brooding of the ♀.

**Lowe H. N.** - New Marine *Mollusca* from West Mexico, together with a List of Shells collected at Punta Penasco, Sonora, Mexico [*Mollusca marina Mexicana. Index adiungitur Molluscorum collectorum*]. 4 pl., Trans. San Diego Soc. Natur. Hist., VIII, 6, 15-34. San Diego (1934). **b - 956**

**MacDonald R. & Clench W. J.** - Descriptions of a New Genus and two New Species of Squids from the North Atlantic [*Descriptio novi generis novarum duarum specierum ex Sepiis Atlantici Nordici*]. Occ. Pap. Boston Soc. Nat. Hist., VIII, 145-152. Boston (1934). **b - 957**

*Bigelowia* n. gen., type *B. atlanticus*, and *Mastigoteuthis iselini.*

**Magaz J.** - Catálogo provisional de los Moluscos cefalópodos vivientes en las costas de la Península Ibérica y Baleares [*Catalogus provisorius Molluscorum cephalopodorum viventium in litoribus paeninsulae Hibericae et in insulis Balearibus*]. Notas y Resúm. Inst. Españ. Oceanogr., ser. II, 82, 1-53. Madrid (1934). **b - 958**

Antes de entrar en una examen detenido de las especies de las costas españolas, el A. ha creído interesante recoger lo ya publicado. Como apéndice ha puesto una clave lo bastante sencilla para poder llegar a clasificar los géneros de las especies consignadas en el presente catálogo. Las especies llevan, aparte, la sinonimia y localidad de la costa donde se la encuentra, una sinopsis y, a veces, una cita o comentario en aquellas que han suscitado diversos problemas de orden biológico.

**Makarov W. W.** - Eine neue Gattung der Familie *Lithodidae* aus dem Japanischen Meer [*Genus quiddam novus ex Lithodidis ad mare Japonicum pertinentibus*]. Zool. Anz., CVIII, 251-254. Leipzig (1934). **b - 959**

**Murayama S.** - On the Development of Japanese Abalone *Haliotis gigantea* [*De accretione corporea speciei « Haliotis gigantea » Japonicae*]. Journ. Coll. Agric. Tokyo Imp. Univ., XIII, 227-234. Tokyo (1935). **b - 960**

**Myers E. H.** - The Life History of *Patellina corrugata* Williamson, a Foraminifer [*Cyclus vitae in Foraminifero « Patellina corrugata »*]. 6 pl., 1 fig., Bull. Scripps Inst. Oceanogr. Univ. California, Techn. ser., III, 15, 355-392. Berkeley, Calif. (1935). **b - 961**

The account presented here, which is opposed to other theories concerning the life cycle of *Patellina corrugata*, is based on permanent cytological preparations and photographs of living organisms reared in cultures under continuous laboratory control and prolonged observations of individuals *in situ*. Methods. Ecology. Cysts in the life cycle. Observations of reproductive activities in life. Cytology.

**Nau Dam L.** - On the Utilisation of Oxygen by *Mya arenaria* [*De utilitate percipienda ab oxygeno speciei « Mya arenaria »*]. Journ. Exper. Biol., XII, 80-94. London (1935). **b - 962**

Study on the variations of oxygen absorption by the Lamellibranchs at low tide. Description of a new method applied at the experiments.

**Nikitin V. V.** - The Gudaut Oyster Bank (Essay of Ecological and Fishery Investigations) [*Banchus ostrearum in* Gudaut. *De tentata quadam investigatione oecologica et piscatoria*]. (In Russ., Engl. & Georg. Summ.). 38 figs., 21 tabls., 5 pls. Trav. Stat. Piscic. & Biol. Géorgie, I, 1, 51-179 Batoum-Tiflis (1934). **b - 963**

Part I: Ecology of the oyster bed biocenosis of the Gudaut Bank: 1. Methods of gathering and working up material: 2. Distribution of the bottom fauna in the sea region near Gudaut;. 3. Conditions of oyster bed formation; 4. Lower and upper limits of oyster bank; 5. Hydrological conditions in the area of the Gudaut oyster bank; 6. Composition of the oyster bed fauna; 7. Components of the oyster bed biocenosis; 8. Quantitative relation of the « basic » components of the biocenosis.

Part II: Quantitative distribution and size of the oyster-stock on the Gudaut-Bank: 1. Taxonomical position of the Gudaut-Bank oysters; 2. Method of the quantitative determination of the oyster-stock; 3. Age composition and fishery-stock of the Gudaut-Bank oysters.

Appendix 1: List of stations and gathered materials.

Appendic 2: Tables of measurement and weighing of oysters caught in 1930, 1931 and 1932. Bibl.

**Nomura S.** - Miscellaneous Notes on Shells [*Miscellanea de conchis*]. Venus, IV, 6, 374-379. Kyoto (1934). **b - 964**

**Nomura S. & Hatai K.** - On Some Recent Brachiopods from Northeast Japan [*De Brachiopodis viventibus in Japonica regione nord-occidentali*]. 2 pls., Saitô Hô-on Kw. Mus. Res. Bull., 2, 20 pp. Saitô Hô-on, Jap. (1934). **b - 965**

Description of the recent Brachiopoda of the collection of the Saitô Hô-on Kw. Museum. Author enumerates also for comparison the other forms collected from Northeast Japan. *Hemithyris psittacea, Terebratulina crossei, T. japonica, T. coreanica, Laqueus rubellus.*

**Nomura S. & Hatai K.** - Catalogue of the Shell-Bearing Molluscs Collected from the Kesen and Motoyoshi Districts, Northeast Honsyû, Japan, Immediately after the Sanriku Tunami, March 3, 1933, with Descriptions of Five New Species [*Catalogus Molluscorum cum conchis collectorum in districtis* Kesen *et* Motoyoshi *postquam ventus halitavit* tunami *nomine, in regione* Sanriku *die 3 mensis Martii 1933. Descriptio adiungitur quinque novarum specierum*]. 2 pls., Saitô Hô-on Kw. Mus. Res. Bull., 5, 1-47. Saitô Hô-on, Jap. (1935). **b - 966**

List of 74 species of *Pelecypoda*, 3 of *Scaphopoda*, 138 of *Gastropoda*, and 5 of *Amphineura*, found upon the shore. Description of the most important features of the collected material and summary of data, from which authors conclude that, in spite of the great magnitude of the waves, their digging and shearing activities are restricted to the littoral zone roughly within the depth of 10 meters.

**Nomura S. & Hatai K.** - On the Fathomic Records of Some Species of Mollusca from the Continental Shelf Bordering Mostly Northeast Japan [*Profunditatis tabulae aliquarum specierum Molluscorum ad plateam continentalem pertinentium quae limitat litora nord-occidentalia Japoniae*]. Saitô Hô-on Kw. Mus. Res. Bull., 5, 49-53. Saitô Hô-on, Jap. (1935). **b - 967**

List of the depths at which several common marine *Mollusca* have been found in the area considered.

**Orton J. H.** - On the Biological Condition of Relaid Oysters [*De biologicis condicionibus Ostrearum translatarum*]. Econ. Proc. R. Dublin Soc., II, 533-540. Dublin (1935). **b - 968**

**Ostergaard J. M.** - Recent and Fossil Marine Molluscs of Tongatabu [*Mollusca recentiora et fossilia ad regionem* Tongatabu *pertinentia*]. 1 map, 1 pl., 59 pp., Bernice P. Bishop Mus. Bull., 131. Honolulu (1935). **b - 969**

The chief purpose of this paper is to form a basis for the determination of the geological age of the limestone and its climatic and ecological conditions.

Geography and geology of Tongatabu; list of living and fossil Molluscs of the different zones. Systematic treatment.

**Paris P.** - Faune de la Saône moyenne [*De fauna medii Araris*]. Bull. Scient. Bourgogne (1934), IV, 100-113. Bourgogne (1935). **b - 970**

Présence dans la Saône moyenne de *Lithoglyphus naticoides*, immigré récemment de la Mer, qui s'étend de plus en plus dans la Saône. On ne rencontre plus *Margaritana auricularia*.

**Powell A. W. B.** - New Species of Marine Molluscs from the Subantarctic Islands of New Zealand [*Species novae Molluscorum marinorum ab insulis subantarcticis Novae Zelandiae provenientes*]. 1 pl., 4 figs., Proc. Malac. Soc. London, XX, 5, 232-236. London (1933). **b - 971**

*Perrierina mestayerae* n. sp., *Zeadmete subantarctica* n. sp., *Legrandina aucklandica* n. sp., *Macquariella aucklandica* n. sp., *Subonoba delicatula* n. sp., *S. tenuistrata* n. sp. and *Hypermastus bountyensis* n. sp.

**Powell A. W. B.** - Marine Molluscs from the Bounty Islands [*Mollusca marina insularum* Bounty]. 1 pl., 3 figs., Rec. Canterbury Mus., IV, 1, 29-39. Christchurch, N. Z. (1935). **b - 972**

86 spp. of *Condylocardiidae* are listed, the following of which are new: *Benthocardiella obliquata bountyensis, Scissurella fairchildi, S. bountyensis, Notosetia fairchildi, N. tenuisculpta, Estea minutula* and *Socienna aureola.*

**Pruvot-Fol A.** - De quelques suppressions de genres jugés inutiles parmi les Mollusques Opisthobranches [*Suppressio generum quae inutilia habita fuerunt inter Mollusca Opisthobranchiata*]. Bull. Mus. Nat. Hist. Natur., VII, 2 sér., 4, 254-257. Paris (1935). **b - 973**

Corrections et remarques sur *Micrella dubia* Bergh *Phlegmodoris* Bergh, *Aplysiopsis, Phyllidiella, Fenrisia* Bergh., *Chromodoriella* Eliot, *Timorella perplexa, Doto, Coecinella* etc.

**Reinhart Ph. W.** - Classification of the Pelecypod Family *Arcidae* [« *Arcidae* ». *Quaestio de distributione in classes*]. 5 pls., 68 pp., Bull. Mus. R. Hist. Nat. Belgique, XI, 13. Bruxelles (1935). **b - 974**

This paper is the outgrowth of a study of the species of *Arcidae* represented on the Pacific Slope of North America. It considers: 1) the relation of the *Arcidae* to the class *Pelecypoda*; 2) the family, and specific characteristics of the *Arcidae*; 3) the time of differentiation and the classification based both upon a study of the literature and an examination of specimens of hundreds of species, including the type species of the various groups dealt with, except in the few cases where these were not available. It includes two new systematic names: the subgenus *Larkinia* and the subfamily *Anadarinae.*

**Renouf L. P. W.** - Tectibranchs and Nudibranchs on the South Coast of Cork [*Tectibranchiata et Nudibranchiata in litoribus meridionalibus regionis* Cork]. Ann. & Magaz. Natur. Hist., 10th ser., 399-400. London (1934). **b - 975**

**Robson G. C.** - On *Architeuthis clarkei*, a new species of giant Squid, with Observations on the Genus [*Agitur de « Architeuthis clarkei » ex Dibranchiatis Decapodis specie nova, cum observationibus circa genus*]. Map, 1 pl., 8 figs., Proc. Zool. Soc., 3, 681-697. London (1933). **b - 976**

The species described here has been found stranded on the coast of Yorkshire. Distribution of *Architeuthis* in the Atlantic.

**Roch F.** - Die Teredinidcn des Schwarzen Meeres [« *Teredo* » *Ponti Euxini*]. 12 Abb. a. T., 2 Abb. i. T., Mitt. Kgl. Naturwiss. Inst. Sofia, VIII, 1-18. Sofia (1935). **b - 977**

Allgemeiner geschichtlicher Ueberblick der Angaben von Teredíniden von Altertum her. Biographisches Verzeichnis, Diagnose und Fundort von *Teredo utriculus* Gmelin und *T. navalis* Linné. Verbreitung im Schwarzen Meere.

**Roch F. & Moll F.** - Ueber einige neue Teredinidenarten [*Teredinidae. Agitur de novis speciebus*]. 10 Abb., 2 Taf., 2 Tab., Akad. Wiss. Wien, Abt. 1, CXLIV, 5/6, 263-279. Wien (1935). **b - 978**

Schematische Uebersicht der Teredinidenschale. Beschreibung von 29 Arten, von denen 27 neu sind.

**Russel H. D.** - Some Nudibranchs of Bermuda with a Description of a New Species [*Nudibranchiata quaedam ad* Bermuda *pertinentia. Speciei novae descriptio*]. 1 pl. (Contr. Bermuda Biol. Stat., No. 28, 59-61. St. Georges West, Bermuda 1935.) Nautilus, XLIX, 2. Philadelphia (1935). **b - 979**

*Glossodoris clenchi* n. sp., *Facelina agari* (Smallwood).

**Schenck H. G.** - Valid Species of the Nuculid Pelecypod *Acila* [*Pelecypoda Nuculida, generis « Acila ». Species certae*]. 2 tables. Bull. Mus. R. Hist. Nat. Belgique-Meded. K. Natuurhist. Mus. België, XI, 14, 1-3. Bruxelles (1935). **b - 980**

Author presents an artificial key which may aid to the identification of the specimens of nuculid pelecypods of the genus *Acila*, and completes his note on « Classification of Nuculid Pelecypods », published in the same Bulletin, X, 20, p. 41, June 1934.

**Seki H.** - Description of *Ostrea nippona* n. sp. with Remarks on *Ostrea circumpicta* Pilsbry [*Descriptio novae speciei « Ostrea nippona » cum observationibus circa speciem « Ostrea circumpicta »*]. 25 figs., Venus, IV, 5, 275-284. Kyoto (1934). **b - 981**

Emendations of *O. circumpicta* and *O. multistriata*, creation of a new sp.

**Spärck R.** - Investigations on the Biology of the Oyster, XI [*Investigationes in Ostreae biologiam. XI*]. 4 tabls. Rep. Danish Biol. Stat., XL, 39-41. Copenhagen (1935). **b - 982**

This XI$^{th}$ issue of the « Investigations » deals with the size and age-composition of the stock of native oyster in 1935.

**Teichert C.** - Untersuchungen an Actinoceroiden Cephalopoden aus Nordgrönland [*Investigationes in Actinoceroidea Cephalopoda ad Groenlandiam septemtrionalem pertinentia*]. 22 Abb., Medd. Grønl. (Jubilaeumseksped. nord om Grønland, 1920-1923), XCII, 10, 1-47. København (1934). **b - 983**

Terminologie. Einführende Bemerkungen über die Organisation der Actinoceroideen und Systematische Uebersicht. Strukturbeobachtungen an nordgrönländischen Actinoceroideen. *Actinoceras* Bronn, *Kochoceras* Troedsson. Bemerkungen zur Ontogenie der Actinoceroideen. *Leurorthoceras* Foerste, *Armenoceras* Foerste, *Huronia* Bigsby, *Gonioceras* Hall, *Lambeoceras* Foerste, *Westonoceras* Foerste, *Calhounoceras* Troedsson. Einige nichtactinoceroide Gattungen: *Troedssonoceras* Foerste, *Diestoceras* Foerste. Zusammenfassung der Ergebnisse. Bibl.

**Teichert C.** - Structures and Phylogeny of Actinoceroid Cephalopods [*De structura et phylogenia Cephalopodorum Actinoceroideorum*]. 4 figs., 1 scheme. Amer. Journ. Sc., XXIX, 169, 1-23. New Haven, Conn. (1935). **b - 984**

The present paper is mainly devoted to a résumé of the results of former studies of the author, which were reached by observations on North American and Canadian actinoceroid Cephalopods. It deals with the nomenclature and classification of these Cephalopods and describes further their shell morphology, with special regard to the siphuncle and the intracameral deposits. The author illustrates also the mode of life and the ontogeny of the Actinoceroids.

**Tomlin J. R. & Schilder F. A.** - Reports on the Marine Mollusca in the Collections of the South African Museum. IX. Family *Triviidae* [*Relationes de Molluscis marinis ad Musei collectiones Sud africani pertinentibus. IX. « Triviidae »*]. 3 figs., Ann. South. Afric. Mus., XXX, 3, 477-479. Cape Town (1934). **b - 985**

Description and diagnosis of *Triviella splendidissima* n. sp.

**Vokes H. E.** - Notes on the Variation and Synonymy of *Ostrea idriaensis* Gabb. [*De variatione et synonymia speciei « Ostrea idriaensis »*]. 3 pl., Bull. Dpt. Geol. Sc., XXIII, 9, 291-304. Berkeley, Calif. (1935). **b - 986**

Some confusion as to the identity of this species, comparison with three other species. Diagnosis of *Ostrea idriaensis* Gabb.

**An.** - Oysters' Marvellous Mechanism [*Ostrea. Agitur de earum mechanismo mirando*]. Dr Orton's Buckland Lectures No. 1. Fish. News, 16. Aberdeen (1935). **b - 987**

## Arthropoda varia.

**Derjugin K. M.** (edited by) - *Pantopoda* of the Polar Seas Within USSR [*Pantopoda in maribus arcticis ad USSR pertinentibus*]. (In Russ., Engl. Summ.). 17 figs., 41 tables. Mater. Study of the Arctic, 4, 5-140. Arct. Inst. USSR. Leningrad (1935). **b - 988**

Systematic diagnosis: Table for the determination of the families and species of *Pantopoda* (list of 30 different forms) and their geographical distribution: northern aera of the Barents Sea, west coast of Novaja Zemlja and its straits, the White Sea, the Petschora Sea, the Kara Sea, the Laptev and the Ost-Siberian Seas. Local distribution of *Pantopoda* in the arctic seas. Data on the variability and post-larval development of some species of *Nymphon* fam. Correlation between the shape of the body of the *Pantopoda* and their habitat. List of *Pantopoda* collected on different stations of the Governmental Arctic Expedition of 1929-1930 and the Expeditions of the Arctic Institute, 1931 and 1932.

**Giltay L.** - Note sur quelques Pycnogonides de Villefranche-sur-mer (Alpes Maritimes) [*Notae de Pycnogonidis ad* Villefranche-sur-mer (*In Alpibus maritimis*) *pertinentibus*]. 1 fig., 1 table. Bull. Mus. R. Hist. Natur. Belgique, X, 35, 1-5. Bruxelles (1934). **b - 989**

L'A. signale quelques Pycnogonides recueillis avec des Hydraires sur des feuilles de *Posidonia oceanica*.

**Giltay L.** - A New Pycnogonid from Bermuda [*Exemplar novum e Pycnogonidis a* Bermuda *proveniens*]. 5 figs., Bull. Mus. R. Hist. Natur. Belgique, X, 42, 1-3. Bruxelles (1934). **b - 990**

Description and occurrence of the new species *Anoplodactylus parvus*.

**Giltay L.** - *Pycnogonida.* – Expéd. Antarctique belge, Résultats du Voyage de la « Belgica », en 1897-99 sous le Commandement de A. de Gerlach de Gomery. Rapp. Scient. Zool. Anvers (1935). **b - 991**

Une nouvelle espèce abyssale a été trouvée dans une profondeur de 460 m., *Nymphon gerlachei* n. sp.

**Helfer H. & Schlottke E.** - *Pantopoda.* – II G. Bronn's Klass. u. Ordn. Tierreichs, V, Abt. 4, Buch 2, Lief. 1, 1-160; Lief. 2, 161-314. Akad. Verlagsg. Leipzig (1935). **b - 992**

**Hennig W.** - Thalassobionte und thalassophile Diptera Nematocera [*De dipteris nematoceris thalassobiontibus et thalassophilis*]. Die Tierwelt d. Nord-und Ostsee, gegr. v. G. Grimpe & E. Wagler, Hrsg. v. G. Grimpe. Abb. 17, Lief. 27, Teil 11, 85-102. Akad. Verlagsg. Leipzig (1935). **b - 993**

**Tokunaga Masaaki** - *Chironomidae* from Japan (*Diptera*). V. Supplementary Report on the *Clunioninae* [*Chironomidae Japonicae* (*Diptera*). *V. Relatio additicia de Clunioninis*]. 4 pls. on table. Mushi (Contr. Seto Mar. Biol. Labor. N. 45), VIII, 1, 1-20. (1935). **b - 994**

The A. here adds some biological notes to his paper published in 1933 with a special reference to the ecological review of the genus *Clunio* and description of the early stages and female imagines of the known species. One new species, *Telmatogeton pacificus*, is also dealt with.

**Tokunaga Masaaki** - *Chironomidae* from Japan (*Diptera*). The early Stages of a Marine Midge, *Telmatogeton japonicus* Tokunaga [*Chironomidae Japonicae. De primis stadiis speciei « Telmatogeton japonicus »*]. 3 Pls., Philipp. Journ. of Sc. LVII, 4, 491-509. Manila (1935). **b - 995**

Some ecologic observations and studies on the biology and structures of immature forms upon seven species of the genus *Telmatogeton*, and firstly on *T. japonicus* Tokunaga, collected on the coast of the Pacific Ocean, at Wakayama.

## *Crustacea.*

**Arcangeli A.** - Brevi notizie sopra Isopodi marini del Mediterraneo [*Brevia circa Isopoda marina Maris Mediterranei*]. Boll. Mus. Zool. Anat. Comp. R. Univ. Torino, XLIV, ser. III, 48, 145-152. Torino (1935). **b - 996**

Osservazioni morfologiche, sistematiche e *habitat* di *Sphaeroma Hookeri* Leach, *Sph. serratum* (Fabr.) *Sph. ephippium* Costa.

**Balss H.** - Ueber einige marine *Penaeida* (*Crustacea Decapoda*) des malaiischen Archipels [*Penaeida nova marina* (*Crustacea Decapoda*) *ad archipelagus Malaiicum pertinentia*]. 5 Abb., Treubia, XIV, 2, 227-236. Buitenzorg (1933). **b - 997**

Von den 19 hier behandelten Arten ist eine neu, *Trachypeneus curvirostris malaiana.*

**Balss H.** - Mitteilungen von der Wallacea-Expedition Woltereck. XI: Die Dekapoden [*Notitiae circa expeditionem* Wallacea *nomine. XI. Decapoda*]. 5 Abb., Zool. Anz., CVI, 7/8, 177-184. Leipzig (1934). **b - 998**

Bericht über 10 Arten, von denen *Halicarcinus woltereckí* n. sp. neu ist.

**Balss H.** - On three South Indian Crabs (*Decapoda, Brachyura*) of the Madras Museum [*Cancri tres novi ad Indiam Merid. pertinentes* (*Decapoda, Brachyura*) *in Museo urbis* Madras]. 1 pl., Records Ind. Mus., XXXVII, 1, 45-48. Calcutta (1935). **b - 999**

Description of *Medaeus rouxi* sp. nov., *Sphaerozius nudus* (A. Milne Edwards), and *Leipocten sordidulum* Kemp.

**Bonde C. (von) & Marchand J. M.** - The Natural History and Utilization of the Cape Crawfish, Kreef or Spiny Lobster, *Jasus* (*Palinurus*) *lalandii* (Milne Edwards) Ortmann [*Naturalis historia* (*evolutionis cyclus*) *et utilisatio speciei « Jasus* (*Palinurus*) *lalandii »*]. Tables, 8 pls., 9 sketch maps o. t., Fish. Bull., Dpt. Comm. & Ind., Un. S. Afr., 1, 5-55. Pretoria (1935). **b - 1000**

Part I. Natural History: Taxonomic position, anatomy, reproduction, development and metamorphosis. Ecdysis. Natural food, habitat, migration; proportion of sexes. Part II. Utilization: History of the industry, the canning process, the value of the industry, marketing, and export. Frozen tail industry. Boats, equipment, methods of fishing and fishing grounds. Protective legislations. Bibl.

**Boone L.** - Scientific Results of the World Cruise of the Yacht « Alva » 1931, William K. Vanderbilt, Commanding. *Crustacea: Anomura, Macrura, Euphausiacea, Isopoda, Amphipoda* and *Echinodermata: Asteroidea* and *Echinoidea* [*Resultatus scientifici navigationis per orbem pamphilii* « Alva », *A. 1931. Duce* W. K. Vanderbilt]. Num. tabl. & figs., Bull. Vanderbilt Mar. Mus., VI, 264 pp., Print. privately (Whittet & Shepperson). Richmond, Va. (1935). **b - 1001**

The first part deals with the above mentioned *Crustacea* representing about 20 families with subfamilies, from true deep-sea forms from dredgings of 140 to 400 fathoms in the Eastern Atlantic Ocean, off the Canary Islands, to littoral, freshwater and terrestrial forms of the Indo-Pacific region. For every group are given families, subfamilies, and genera with types, distribution, material examined, descriptions with plates or figures, and references. One new genus, *Vanderbiltia*, with the species *V. rosamondae* n. sp., remarkably interesting for its most unusual specialization in adaptation to its life in the coral crevices, as well as ten other new species are described. Discussion as to the systematical classification of the species and list of their geographical distribution. Bibl.

**Broch H.** - The Fishery Grounds of Alexandria. III. Cirripeds [*De fundis piscatoriis Alexandriae. III. Cirripedia*]. 1 chart, Fish. Research Direct., Notes & Mem., 10, 1-5. Cairo, Egypt (1935). **b - 1002**

Notes on the distribution of the following cirripeds: *Balanus trigonus* Darwin, *B. perforatus* (Bruguière) f. *angusta* (Gmelin); *B. improvisus* (Bruguière) f. *communis* Darwin; f. *assimilis* Darwin; *B. amphitrite*, D., f. *communis* D.; *Balanus* Sp. Juv.; *Chelonibia patula* (Ranzani).

**Burkenroad M. D.** - The *Penaeidea* of Louisiana, with a Discussion of their world Relationships [*Penaeidea ad Luisianam pertinentia. Quaestio de affinitate cum reliquis orbis speciebus*]. 15 fig., Bull. Amer. Mus. Nat. Hist., LXVIII, 2, 61-143. New-York (1934). **b - 1003**

Investigations made in the eastern portion of Louisiana in both surface and bottom strata, in order to observe the occurrence of peneids. The A. gives a systematic account of *Peneidea*, reestablishing the two subfamilies: *Penaeinae* and *Solenocerinae*. with a detailed description of *Solenocera vioscai* n. sp. Discussion on the relations betwen the subfamilies, particularly in the light of larval history, their morphology, bionomics and sexual dynamics and ecologic distribution.

**Cecchini C. & Parenzan P.** - Anfipodi del golfo di Napoli [*Amphipoda sinus Neapolitani*]. 55 fig., Pubbl. Staz. Zool. Napoli, XIV, 2, 153-250. Napoli (1934-35). **b - 1004**

Ordinamento sistematico, distribuzione delle specie e partecipazione alle diverse biocenosi degli Anfipodi raccolti in oltre mille dragaggi compiuti sistematicamente per quattro anni nell'esplorazione del Golfo di Napoli, allo scopo di conoscere la formazione delle biocenosi, bentoniche. Dal materiale esaminato risultano presenti 16 specie nuove per il Golfo di Napoli.

**Chace A. Fenner** - Report on the *Crustacea* [*Relatio de Crustaceis*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College, 1934–35, 50. Cambridge U. S. A. (1935). **b - 1005**

Revisional work; the « Atlantis » expedition, new accessions.

**Chevreux E.** - Amphipodes provenant des Campagnes scientifiques du Prince Albert I de Monaco [*Amphipoda e navigationibus scientiae causa a Principe Alberto I* de Monaco *susceptis provenientia*]. 16 Pl. col., 214 pp., No. 90. Monaco (1935). **b - 1006**

Description de chaque espèce des Amphipodes récoltés, parmi lesquelles on trouve plusieurs formes nouvelles et très intéressantes.

Fam. *Lysianassidae*, clef systhématique du genre *Cyphocaris*, gen. *Onesimus*, gen. *Orchomenella*; Fam. *Stegocephalidae*; Fam. *Haustoriidae*, gen. *Urothoe*; Fam. *Stenathoidae*; Fam. *Eusiridae*, gen. *Cleonardo*; Fam. *Gammaridae*; Fam. *Talitridae*, gen. *Hyalella*; Fam. *Lanceolidae*; Fam. *Scinidae*; Fam. *Vibiliidae*; Fam. *Hyperiidae*.

**Creaser E.** - A new Crayfish from North Carolina [*Cancer novus a regione* Carolina *septemtr. proveniens*]. 3 figs., Occas. Pap. Mus. Zool. Univ. Mich., 285, 1-4. Michigan (1934). **b - 1007**

*Cambarus (Ortmannicus) pearsei* n. sp.

**Deksbach N. K.** - *Mysis relicta* - ein zweiter marin-glazialer Relikten-Krebs aus dem Seeliger See [« *Mysis relicta* » *alter cancer marinus glacialis ad lacum* Seeliger *pertinens*]. (In Russ., Dtsch. Rés.). 1 Tab., Abstr. Works Zool. Inst., 2, 25-29. Moscow (1935). **b - 1008**

Der im Darminhalte von *Perca fluviatilis* aus dem Seeliger-See (Fläche 260 km²) entdeckte Krebs, *M. relicta*, stellt die zweite marin-glaziale Form dar, welche in demselben See entdeckt worden ist. (Die erste war *Pallasea quadrispinosa*). In Bezug auf die Herkunft von *M. relicta*, nimmt Vf. an, dass dieser Krebs durch die in der glazialen Zeit geformten Stauseen vor dem heranrückenden Eise aus der Ostsee in den Seeliger-See gekommen sei.

**De Miranda A.** - Primera campaña biologica a bordo del « Xauen » en aguas de Mallorca (Abril 1933). Crustáceos decápodos. [*De prima navigatione biologica navis* « Xauen » *ad Balearem Majorem* (*Mense Aprili 1933*). *Crustacea decapoda*]. Trab. Inst. Españ. Oceanogr., 8, 75-79. Madrid (1934). **b - 1009**

Lista de las especies de las siguientes familias. *Alpheidae, Processidae, Palaemonidae, Galatheidae, Paguridae, Dromiidae, Dorippidae, Calappidae, Parthenopidae, Majidae, Portunidae, Xanthidae.*

**Dimitrowa A.** - Die Garnelen der Varnaer Bucht [*Gammari ad bajam* Varna *pertinentes*]. Arb. Biol. Meeresstat. am Schwarz. Meer i. Warna, Bulg., 4, 11-16. Sofia (1935). **b - 1010**

Beschreibung von *Leander adspersus*, Rathke, *L. Squilla*, Rathke (var. *elegans*), *Crangon crangon* L.

**Dons C.** - Norges Strandfauna VII. Amphipoder [*De fauna litorea Norvegica. VII. Amphipoda*]. Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 30, 107-110. Trondheim (1935). **b - 1011**

Bericht über 31 Spezies, die in den Jahren 1922-1934 auf der Strecke Flor-Kirkenäs gesammelt worden sind. Fundorte und Verbreitung.

**Duboscq O. & Tuzet O.** - Sur un crabe mal connu, *Brachynotus gemmellari* Rizza (*Heterograpsus lucasi* Milne-Edw.) [*De cancro parum noto* « *Brachynotus gemmellari* »]. C. R. Soc. Biol., CXVII (Trav. Labor. Arago Banyuls-sur mer), 418-420. Paris (1934). **b - 1012**

Les Auteurs proposent d'appeler les deux formes de *Brachynotus* de la Méditerranée: *B. gemmellari* Rizza et *B. gemmellari lucasi* Milne–Edw. tout en pensant que la seconde, dont les mâles n'ont pas de vésicules aux pinces, représente la forme primitive.

**Edmondson C. Howard** - New and Rare Polynesian *Crustacea* [« *Crustacea* » *polynesiana nova et rara*]. 2 pls., 11 fig., Bernice P. Bishop. Mus. Occas. Papers, X, 24, 1-40. Honolulu (1935).
**b - 1013**

Description of about 13 species of 7 families belonging to collections taken by various field workers in widely separated parts of Polynesia ranging from Hawaii through the equatorial islands to Fiji, including the Lau Archipelago, and Tongabatu. Interesting records include the occurrence of *Hymenocera elegans* Heller and *Portunus vocans* (A. Milne Edwards) in Hawaiian waters, the latter previously known only from the Atlantic Ocean. A distribution of the little known genus *Lioxanthodes* into the Pacific Ocean is also reported. Two new genera are created, *Mesocaris, Nullicrinis*.

**Elmhirst R.** - The Occurrence of *Gammarus* in Scottish Waters [*Gammarus in aquis Scotis*]. 1 table. Scott. Natural., January-February, 211, 17-21. Edinburgh (1935). **b - 1014**

*G. locusta* show no tendency to enter fresh water in experimental conditions although they approach high-water mark as night-tidal migrants. *G. duebeni* seek fresh water under experimental conditions and occur in pools only salted by spray. Fresh water *Gammarus* from the southwest of Scotland approach *G. duebeni* in several characters.

**Fenizia G.** - La *Dromia vulgaris* (M. Edw.), e le sue abitudini [« *Dromia vulgaris* » *eiusque consuetudines*]. 22 fig., Arch. Zool. Ital.,X XI, 1, 509-539. Napoli (1935). **b - 1015**

L'Autore tratta dell'abitudine che ha la *Dromia* di coprirsi con oggetti svariati; descrive le manovre del crostaceo nel tagliare e conformare l'oggetto al proprio dorso, il comportamento di esso dopo la muta; l'ufficio degli organi di senso in questa attività. Procede così alle conclusioni riguardo al significato, all'utilità ed all'ipotesi sulla origine di tale abitudine.

**Floris G.** - Ricerche morfologiche e biologiche sull'*Artemia salina L.* [*Investigationes morphologicae et biologicae in speciem* « *Artemia salina* »]. 1 tav., Rend. Fac. Sc. R. Univ. Cagliari, VI, 2, 47-61. Cagliari (1935). **b - 1016**

Si riferiscono brevemente alcune osservazioni intorno all'*Artemia* delle Saline di Cagliari, osservazioni che vertono su punti diversi della biologia di questo Crostaceo e che saranno inquadrati in seguito in uno studio più vasto.

**Glassell Steve A.** - Three New Species of *Pinnixa* from the Gulf of California [« *Pinnixa* ». *Species tres novae ad sinum californianum pertinentes*]. Trans. San Diego Soc. Natur. Hist., VIII, 5, 13-14. San Diego (1934). **b - 1017**

**Gordon I.** - *Crustacea Brachyura.* – 37 figs. Mém. Mus. R. Hist. Natur. Belgique; Résult. Scient. voyage aux Indes Orient. Néerl. de LL. AA. RR. le Prince et la Princesse Léopold de Belgique, III, 15, 1-78. Bruxelles (1934). **b - 1018**

The species described in this paper belong to the following families: *Gecarcinidae, Grapsidae, Ocypodidae, Pinnotheridae, Goneplacidae, Potamonidae, Xanthidae, Portunidae, Parthenopidae, Maiidae, Calappidae.*

**Gordon I.** - *Anomura* (Excluding Paguridea). 5 fig., Mém. Mus. R. Hist. Natur. Belgique. Résult. Scient. voyage aux Indes Orient. Nèerl. de LL. AA. RR. le Prince et la Princesse Lêopold de Belgique. III, 17, 1-12. Bruxelles (1935). **b - 1019**

Description, synonyms and remarks of some species belonging to the families *Galatheidae, Porcellanidae* and *Hippidae.*

**Gordon I.** - On New or imperfectly known Species of *Crustacea Macrura* [*Crustacea macrura. Species nova seu parum cognita*]. 27 figs., Zoology, XXXIX, 266, 339-351. London (1935). **b - 1020**

*Anchistioides antiguensis* (Schmitt): discussion on the affinities and systematic position of the genus with a key for its species.

**Gurjanova E. F.** - Contribution to the Isopoda-Fauna of the Pacific Ocean. II. New Species of *Gnathiidea* and *Asellotta* [*Isopoda Oceani Pacifici. Contributio in eorum faunam. II.* « *Gnathiidea* » *et* « *Asellotta* » *species novae*]. (In Russ., Engl. Summ.). 15 figs., Expl. Mers USSR, 19, 79-91. Léningrad (1933). **b - 1021**

13 new species gathered by several expeditions of the Hydrological Institute of USSR and of the Scientific Institute of Fisheries of Pacific Ocean: *Gnathia rectifrons* n. sp., *G. schmidti* n. sp., *G. derzhavini* n. sp., *Janira soldatovi* n. sp., *Janiropsis derjugini* n. sp., *Ilyarachna zachsi* n. sp., *I. starokadomskii* n. sp., *Munnopsurus giganteus* (G. Sars) var. *ochotensis* n. var., *M. minutus* n. sp., *Eurycope spinifrons* n. sp., *E. pavlenkoi* n. sp., *Munna arnholdi* n. sp., *M. stephenseni* n. sp.

**Gurjanova E. F.** - The *Amphipoda* Fauna of the Barents and White Seas [*Amphipoda ad Mare Barentsium mareque Album pertinentia. Quaestio de fauna*]. (In Russ., Engl. Rés.). 1 fig., Issl. Morej USSR, 20, 87-89. Leningrad (1934). **b - 1022**

**Gurjanova E. F.** - Neue Formen von Amphipoden des Karischen Meeres [*Amphipoda maris Karensis. Formae novae*]. Zool. Anz., CVIII, 122-130. Leipzig (1934). **b - 1023**

**Hatai K.** - A Note on a Recent Cirriped [*Cirripedius quidam recens*]. 3 figs. Saitô Hô-on Kw. Mus. Res. Bull., 27, 2 pp. Saitô Hô-on, Jap. (1935). **b - 1024**

*Coronula diadema* L.

**Hennequin G.** - Mécanisme d'enroulement du *Sphaeroma serratum* [*Agitur de mechanismo volutationis speciei* « *Sphaeroma serratum* »]. 8 fig. d. t., 2 fig. h. t., Trav. Stat. Biol. Roscoff, Fasc. 12, 23-30. Paris (1934). **b - 1025**

L'enroulement de l'animal est possible principalement grâce aux trois ensembles de faits suivants: 1. Conformation générale du corps. 2. Attitudes prises par les pattes et les antennes. 3. Spécialisation des formes de certaines pièces squelettiques. Analyse des attitudes et des mouvements de chaque pièce squelettique.

**Iwasa M.** - A New Amphipod (*Parhyale kurilensis* n. sp.) from Urup [*Amphipodus novus* « *P. Kurilensis* » *ad regionem* Urup *pertinens*]. 1 fig., 2 pls., Journ. Fac. Sc., Imp. Univ., Ser. VI, Zool. III, 1, 1-7. Hokkaido (1934). **b - 1026**

Description of a new species of *Talitridae* found on the shore of the Urup Island (Middle Kurile Islands), representing a second species of the genus *Parhyale*, differing in anatomy from the type species, *P. fasciger.*

**Klevenhusen W.** - Beitrag zur Systematik und Biologie der Corycaeen nach dem Material der Meteor-expedition (Süd-Atl. Ozean) [« *Corycaeae* ». *Contributio in systematicam et biologiam ex materiis collectis expeditione navis* « Meteor » *perdurante per Atlanticum merid.*]. 11 Abb., Zool. Jahrb. Abt. Syst. Oekol. u. Geogr. Tiere, LXIV, 6, 583-602. Jena (1933). **b - 1027**

Verzeichnis von 16 Formen, von denen die folgenden neu sind: *Ditrichocorycaeus minimus* ssp. *uncinatus* und *Corycella rostrata* v. *longa.*

**Klie W.** - Zur Kenntnis der in der Kieler Bucht vorkommenden Ostrakoden der Gattung *Cytherura* [*De cognoscendis Ostracodis ad genus* « *Cytherura* » *pertinentibus in baja* Kiel]. Zool. Anz., CVIII, 1/2, 12-16. Leipzig (1934). **b - 1028**

*Cytherura inconspicua* n. sp. und *C. nasuta* n. sp.

**Klie W.** - Die Fischereigründe von Alexandrien. V. *Ostracoda* [*De fundis piscatoriis Alexandriae. V. Ostracoda*]. (In Dtsch., Engl. Rés.). 8 Abb., 1 Tab., 1 Karte a. T., Fish. Research Direct., Notes & Mem., 12, 1-9. Cairo. Egypt (1935). **b - 1029**

Beschreibung von Süss- und Brackwasserostracoden von den Fischereigründen von Alexandrien mit besonderer Berücksichtigung einer neuen Form, *Potamocypris steueri* n. sp. aus dem Mariotis-See, eine Brackwasserlagune neben der Stadt Alexandrien.

**Kolosváry (v.) G.** - Neue *Balanus* – Studien, mit besonderer Berücksichtigung der konstitutionellen Typen. (Beitrag zur Kritik der Anpassungslehre) [« *Balanus* ». *Studia typorum novorum. Agitur particulatim de typis constitutionalibus*]. 1 Abb., 3 Taf., Fol. Zool. et Hydrobiol. VIII, 2, 239-251. Riga (1935). **b - 1030**

Bericht über die in einer privaten Sammlung enthaltenen 17 Spezies fossiler *Balanus*: Berichtigungen, Verzeichnis von drei verschiedenen Typen und zwei Arten von Deformationen (Missbildungen und Pseudotypen).

**Lebour M. V.** - The Life-history of *Dromia vulgaris.* [*Cyclus vitae speciei « Dromia vulgaris »*]. 5 pl., Proc. Zool. Soc. London, 241-249. London (1934). **b - 1031**

Description of the larval development of this Crustacean. Comparison with *Anomura, Upogebia, Lithodes* and *Galathea.* Discussion on the systematic position of the *Dromia.*

**Mackintosh N. A.** - Recent Antarctic Research undertaken by the Discovery Committee. The R. R. S. Discovery II, 1933-35 [*Investigationes per regiones antarcticas nuper susceptae a* Discovery Committee]. 1 map, 1 graph. fig., Nature, CXXXVI, 3442, 629-630. London (1935). **b - 1032**

Summary of the work accomplished. A special mention is made of the distribution of the copepod *Rhincalanus gigas.*

**Monard A.** - Description de trois Harpacticides marins d'Angola [*Harpacticidae marinae ad* Angola *pertinentes. Trium exemplarium descriptio*]. 28 fig., Rev. Zool. et Bot. Afric., XXVI, 1, 1-9. Bruxelles & Gand (1934). **b - 1033**

*Lobitella* n. gen., *L. apoda* n. sp., *L. lithophila* et *Amphiascus angolensis* n. sp.

**Monard A.** - Etude sur la faune des Harpacticoïdes marins de Roscoff [*Harpacticoidea marina ad* Roscoff *pertinentes. Faunae studium*]. 235 fig. h. t., Trav. Stat. Biol. Roscoff., 13, 3-87. Paris (1935). **b - 1034**

Liste et description de 17 familles dont 2 genres et 22 espèces sont nouveaux.

**Monod Th.** - *Tanaidacea* et *Isopoda.* (Mission Robert-Ph. Dollfus en Egypte, Décembre 1927-Mars 1929). 80 fig., Mém. Inst. Egypte, 21, 161-264. Le Caire (1933). **b - 1035**

Report sur des espèces de la Mer Rouge. *Bagatus stebbingi* n. sp., *Argathona rhinoceros* n. sp., *Aega dollfusi* n. sp., *Bopyrina* (?) *pleurocephala* et *Bopyrinella* (?) n. sp.

**Monterosso B.** - L'anabiosi nei *Cirripedia* ed il problema della vita latente (Ipobiosi) [*Cirripedia. Quaestio de anabiosi deque vita latenti*]. Lavori Staz. Biol. mar. in S. Bartolomeo e Istit. Zool. Anat. Comp. R. Università di Cagliari, 11, 1-379. Cagliari (1934). **b - 1036**

Sguardo storico sui fenomeni di vita latente. Caratteri morfologici e funzionali di *Chthamalus stellatus depressus,* più direttamente connessi con i processi anabiotici. Cenni bio-ecologici su *C. s. depressus.* I fenomeni che precedono, caratterizzano e seguono l'anabiosi. Ricerche sperimentali sull'anabiosi e sull'anossibiosi di *C. s. depressus* Confronto del fenomeno di anabiosi con altri gradi di ipobiosi. Natura e caratteri dell'anabiosi in *C. s. depressus;* ipobiosi in generale.

**Moore H. B.** - The Biology of *Balanus balanoides.* III. The Soft Parts [*De biologia speciei « Balanus balanoides ». III. Partes molles*]. 4 figs., 6 tabl., Journ. Mar. Biol. Assoc., XX, 2, 263-277. Plymouth (1935). **b - 1037**

The relation between the dry weight of the decalcified barnacle and its shell volume has been determined in its relation to age, season, and tidal level, at Port Erin. The changes in the gonads with season and age as well as the larval output have also been studied.

**Nicholls A. G.** - Copepods from the Interstitial Fauna of a Sandy Beach [*Copepoda provenientia a fauna interstitiali cuiusdam orae maritimae arenosae*]. 10 figs., Journ. Mar. Biol. Assoc., XX, 2, 379-405. Plymouth (1935). **b - 1038**

General character of sand- dwelling Copepods. Description of some Copepods from Kames Bay, Millport: 7 genera, 3 of which are new, and 10 species, 8 of which are new.

**Nilsson-Cantell C. A.** - Zoologische Ergebnisse einer Reise nach Bonaire, Curaçao und Aruba im Jahre 1930. 12. Cirripeds from Bonaire [*Resultatus zoologici a quadam navigatione in* Bonaire, Curaçao *et* Aruba, *A. 1930. XII. Cirripedia ad* Bonaire *pertinentia*]. 2 Abb., Zool. Jahrb. Abt. Syst. Oekol. u. Geogr. Tiere, LXIV, 3/5, 503-508. Jena (1933). **b - 1039**

Verzeichnis von 6 Arten mit Beschreibung von *Chthamalus fragilis* und *Balanus amphitrite inexpectatus.*

**Nilsson-Cantell C. A.** - Indo-Malayan Cirripeds in the Raffles Museum [*Cirripedia ad insulas* Malakka *pertinentia in Museo* Raffles]. 7 figs., 1 pl., Bull. Raffles Mus., 9, 42-73. Singapore (1934). **b - 1040**

List of the species collected from submarine cables with indication of depths and localities. Systematic and phylogenetic relations. *Oxynaspis pulchra, Balanus amphitrite* ssp. *raflesi* are new.

**Nilsson-Cantell C. A.** - Cirripeds from the Malay Archipelago in the Zoological Museum of Amsterdam [*Cirripedia ab archipelago malaiico provenientia in Museo zoologico Amstelodamiensi*]. 12 figs., Zool. Meded., XVII, 1/2, 31-63. Leiden (1934). **b - 1041**

Descriptional notes on 30 spp., 2 of which are new: *Scalpellum baliense* and *Balanus Krakatauensis.*

**Nouvel H. & L.** - Observations sur la biologie d'une crevette: *Athanas nitescens* Leach [*Observationes circa biologiam speciei « Athanas nitescens »*]. 2 fig., 8 pp., Bull. Inst. Océanogr., 685. Monaco (1935). **b - 1042**

*Habitat,* elevage, mensuration des exemplaires, fréquence des mues, croissance, accouplement, ponte, parasites (L. S.).

**Omer-Cooper J. & Rawson Hedley J.** - Notes on the British *Sphaeromatidae* (*Crustacea Isopoda*) [*Sphaeromatidae Britannicae* (*Crustacea Isopoda*), *Notae*]. 6 pls., Armstrong Coll. Dove Mar. Labor. Rep. for the year ending July, 3 1 st. 1934. Third ser. No. 2, 22-58. Cullercoats, Northumb. (1934). **b - 1043**

Classification and list of species. Distribution of the *Sphaeromatinae.* Key to the British species of *Sphaeromatidae.* Diagnosis, synonyms and localities of the family *Sphaeromatidae* and its subfamilies, genera and species. Ample bibliography.

**Parke M. W. & Moore H. B.** - The Biology of *Balanus balanoides.* II. Algal Infection of the Shell [*De biologia speciei « Balanus balanoides ». II. De conchae infectione per algam*]. 2 figs., Journ. Mar. Biol. Assoc., XX, 1, 49-56. Plymouth (1935). **b - 1044**

External colour changes. The cause of colouration. List of all the species of Algae penetrating the shells of the Barnacles, together with notes on their distribution and fruiting: *Chlorophyceae, and Cyanophyceae.* Colonisation of the shell. Correlation of the presence of barnaclepenetrating Algae with level and exposure. Disintegration of the shell. Relation between the Algae and the barnacle.

**Pasquin J.** - Quelques connaissances sur la langouste [*Notitiae de Palinuridis*]. Ind. Pesq., Mai. Madrid (1935). **b - 1045**

**Pirlot J.** - Les Amphipodes de l'Expédition du « Siboga ». 2 partie. II. Les Amphipodes de la Mer Profonde. 2. *Hyperiopsidae, Pardalixidae, Astyridae,* nov. fam., *Tironidae, Calliopiidae, Paramphithoidae, Amathillopsidae* nov. fam., *Eusiridae, Gammaridae, Aoridae, Photidae, Amphithoidae, Jassidae* [*Amphipoda ad expeditionem navis* « Siboga » *pertinentia. Secunda pars: Amphipoda in maris profunditatibus viventia*]. 40 figs., Weber Max Siboga Exped., 122, Res. Zool., Bot., Oceanogr. and Geol. Expl. in Dutch East Indies, 1899-1900, Monogr. 33rd, 161-235. E. J. Brill. Leiden (1934). **b - 1046**

**Pirlot J.** - Un grand Amphipode hypéride, nouveau comme genre et comme espèce [*Agitur de Amphipodo* «*Megalanceola Terrae-Novae* », *n. sp. et n. g.*]. 4 fig., Bull. Inst. Océanogr., 681, 1-8. Monaco (1935). **b - 1047**

Description de *Magalanceola Terrae-Novae* nov. gen. et sp. capturée pendant la croisière scientifique de S. A. S. le Prince de Monaco en 1913 entre le Cap Cod et le Grand banc de Terre Neuve.

**Pyefinch K. A.** - *Baccalaureus maldivensis*, a new Species of Ascothoracican [« *Baccalaureus maldivensis* » *species nova inter Cirripedia*]. 14 figs., Quart. Journ. Microsc. Sc., LXXVII, 2, 223-242. London (1934). **b - 1048**

This new species of *Cirripedia* collected at Hulule, Maldive Isl. is a parasite within zoanthid polyps. Description of its segmented body and of the nauplius stage and discussion on its systematic position.

**Rathbun M. J.** - Descriptions of New Species of Crabs from the Gulf of California [*Cancri ad Sinum californianum pertinentes. Descriptiones novarum specierum*]. Proc. Biol. Soc. Washington, XLVI, 147-149. Washington (1933). **b - 1049**

*Glyptoxanthus felipensis* ♂, *Panopeus diversus* ♂, *Hexapanopeus rubicundus* ♂, *Eurypanopeus confragosus* ♂, *Eurytium albidigitum* ♂, *Pilummus tectus* ♂, *Hypoconcha lowei* ♀.

**Rathbun M. J.** - Preliminary Descriptions of six new Crabs from the Pacific Coast of America [*Descriptio prior sex novarum specierum inter Crustacea decapoda ad litus Americanum Pacificum spectans pertinentia*]. Proc. Biol. Soc. Washington, XLVIII, 49-52. Washington (1935). **b - 1050**

*Daira ecuadorensis* ♂ n. sp., *Cyrtoplax schmitti* ♂ n. sp., *Pinnixa paitensis* ♀, n. sp., *Uca guayaquilensis*, ♂, n. sp., *U. deichmanni* ♂ n. sp., *U. inaequalis* ♂ n. sp.

**Rayner G. W.** - The Falkland Species of the Crustacean Genus *Munida* [*Crustacea generis Munida. Agitur de speciebus ad* Falkland *pertinentibus*]. Discovery Rep., X, 209-245. Cambridge (1935). **b - 1051**

**Redeke H. C.** - *Acartia* (*Acanthacartia*) *tonsa* Dana, ein neuer Copepode des niederländischen Brackwassers [« *Acartia* (*Acanthacartia*) *tonsa* » Dana, *copepodus novus in aqua salmacida Hollandiae*]. Arch. Néerl. Zool., I, 315-329. Leiden (1935). **b - 1052**

**Roux J.** - Notes de carcinologie mélanésienne [*De carcinologia melanesiana*]. 13 fig., Rev. Suisse Zool., XLI, 2, 217-234. Genève (1934). **b - 1053**

Description de: 11 espèces de la Nouvelle Bretagne, 10 espèces de la Nouvelle Irlande, 6 espèces du nouvel Hanovre de l'Archipel de Bismarck et 8 de l'île Manus de l'Archipel de l'Amirauté. Nouvelles formes: *Caridina bühleri, Palaemon* (*Parapalaemon*) *modestus* ssp.

**Roux J.** - Sur les deux espèces de *Palaemon* (Crust. Décap.) provenant des îles du Cap-Vert [*De duobus speciebus* τοῦ Palaemon *ab insulis provenientibus promunturii* Cap–Vert]. 2 fig., 3 tabl., Bull. Mus. Nat. Hist. Natur., VII, 2 sér., 3, 190-196. Paris (1935). **b - 1054**

Description de *Palaemon* (*Macrobrachium*) *jamaicensis vollenhoveni* (Herkl.) et *P. chevalieri* (*Macrobrachium*) n. sp. Tableaux indiquant les rapports de longueur des divers articles des chélipèdes.

**Rustad D.** - On the Antarctic Euphausiids from the « Norvegia » Expeditions 1929-30 and 1930-31 [*Euphausidae antarcticae collectae inter navigationem navis* « Norvegia » *A. 1929-30 et 1930-31*]. Scient. Res. Norw. Antarctic Exped. 1927-1928, 12. Oslo (1934). **b - 1055**

**Sakai Tune** - *Brachyura* from the Coast of Kyushu, Japan [*Brachyura provenientia a litoribus regionis* Kyushu (*in Japonia*)]. 26 figs., 2 pls., Sc. Rep. Tokyo Bunr. Daig., sect. B, I, 25, 281-330. Tokyo (1934). **b - 1056**

The species from Kyushu are listed and described. The following are the novelties: *Philyra kanekoi, Maja nipponensis, Pilumnus heterodon, Heteroplax nagasakiensis* and *Paracleistostoma japonicum.*

**Sakai Tune** - Species of the Genus *Pinnixa* (Pinnotherid Crab) Found in the Far East [*De speciebus ad Genus* « *Pinnixa* » *pertinentibus in regionis ultimis orientalibus repertis*]. Sc. Rep. Tokyo Bunr. Daig., sect. B, I, 29, 37-43. Tokyo (1934). **b - 1057**

**Sakai Tune** - New or Rare Species of *Brachyura*, collected by the « Misago » during the Zoological Survey around the Izu-Peninsula [*Brachyura. Species novae vel rarae collectae navi* « Misago » *inter navigationem zoologicam per paeninsulam* Izu]. 2 pls., Sc. Rep. Tokyo, Bunr. Daig., Sect. B, I, 32, 63-88. Tokyo (1935). **b - 1058**

**Schäfer H. W.** - Beiträge zur Ostrakodenkunde [*Contributio in Ostracoda studenda*]. 12 Abb., Bull. Soc. Stiinte Cluj, 4, 559-565. Bucurestu (1934). **b - 1059**

*Physocypria kliei* n. sp. und *Candona semicognita* n. sp.

**Schäfer H. W.** - Zur Nomenklatur des *Cyclops kieferi* Schäfer [« *Cyclops Kieferi* ». *Quaestio de nomenclatura*]. Zool. Anz., CV, 7/8, 224. Leipzig (1934). **b - 1060**

**Schmitt W. L.** - Mud Shrimps of the Atlantic Coast of North America [« *Cancer crangon* » in *luto litorum atlanticorum ad Americam Nordicam pertinentium*]. 4 pl., Smiths. Miscell. Collections (Publ. 3292), XCIII, 2. Washington D. C. (1935). **b - 1061**

Brief notes and diagnostic key are given for several species of *Callianassa*. Three new species are described together with a new variety of one of them and a new name is proposed for a specimen that had been assigned to an old, inadequately described species. A new record of occurrence in Jamaica is reported for *Callianassa* (*Callichirus*) *longiventris*. Stimpson's genus *Glypturus* appears no longer tenable, and its unique species therefore reverts to the genus *Callianassa*.

**Senst** - Helgolander Hummern und Austern [*Homaridae et Ostreae ad* Helgoland *pertinentes*]. Dtsch. Fischwirtsch., II, 32, 631-632. Berlin (1935). **b - 1062**

Gefahr einer Ausrottung der helgolandischen Hummern durch intensive Fischerei; Tätigkeit der Biologischen Anstalt Helgoland in Bezug auf die künstliche Hummerzucht sowie die künstliche Zucht der Austern und der Heringe.

**Shen Chia-Jui** - The Crabs of Hong Kong. 4. Family *Portunidae* Dana (Swimming Crabs) [*Cancri ad* Hong-Kong *pertinentes. IV. Portunidae*]. 18 figs., Hong Kong Natural., Suppl., 3, 37-56. Hong Kong (1934). **b - 1063**

Of the described spp. *Charybdis* (*Goniohellenus*) *hongkongensis* is new. Key to distinguish *Charybdis acuta* from *C. merguiensis*.

**Shen Chia-Jui** - A comparative Study of the Statocysts of *Eumalacostraca* with special reference to the *Macrura* [*Studium comparatum circa statocysta in Eumalacostrachis. Particulatim refertur circa Macrura*]. 9 pls., Proc. zool. Soc. London, 533-557. London (1934). **b - 1064**

Description of the antennular statocysts of *Anaspides*, *Palaemonetes*, *Leander* and *Oxyrides*. Evolution of statocysts in relation to those of stylocerits. Special statocyst in *Gammurus chevreuxi*.

**Shiino Sueo M.** - Bopyrids from Tanabe Bay I and II [*Bopyridae ad Baiam* Tanabe *pertinentes. Pars I, et II*]. 12 figs., Mem. Coll. Sc., Kyoto Imp. Univ., Ser. B, VIII, 3, (1933); IX, 4, 257-287. (Contr. Seto Mar. Biol. Labor. N. 38). Kyoto (1934). **b - 1065**

Description of several genera and species of this most interesting collection: several peculiar features are pointed out. The following new forms are dealt with: *Aporobopyrina lamellata* n. g., n. sp., *Aporobopyrus oviformis* n. sp., *Parabopyrus kiiensis* n. g., n. sp., *Portunicepon goeticii* n. sp., *Diplophryxus alphei* n. sp., *Epiphryxus primus* n. g., n. sp., *Hypophryxus yusakiensis* n. g, n. sp.

**Shoemaker Cl. R.** - Two new Species of *Corophium* from the west Coast of America [« *Corophium* ». *Species duae novae e litoribus occid. Americanis provenientes*]. 2 figs., Journ. Washington Acad. Sc., XXIV, 8, 356-360. Washington (1934). **b - 1066**

*Corophium baconi* ♂ and *C. californianum* ♂.

**Sivertsen E.** - Littoral *Crustacea Decapoda* from the Galapagos Isls. 1933 (Norwegian Zool. Exped. to the Galapagos Isls 1925, VII) [*Crustacea decapoda litorea ad insulas* Galapagos *pertinentia. A. 1933* (*Navigatio Zoologica a Norvegis suscepta ad insulas* Galapagos *A. 1925. VII*)]. 4 pls., 1 fig., Nyt Magas. Naturv., 74, 1-23. Oslo (1934). **b - 1067**

34 spp. are listed, from which only 4 spp. were previously recorded. *Alpheus strenuus* v. *galapagensis* n. sp.- *Lepidopa wollebaeki* n. sp. and *Petrolistes gracilis* v. *brachycarpus* n. sp.

**Smirnov S.** - Ueber eine neue *D'Arcythompsonia*-Art (*Copepoda, Harpacticoida*) aus dem Japanischen Meer [*De « Arcythompsonia » sp. n. maris Japonici*]. Zool. Anz., CVIII, 118-122. Leipzig (1934). **b - 1068**

**Stephensen K.** - En del amphipoder fra Vest- og Nord-Norge [*Amphipoda quaedam ad norvegiam occid. et septemtr. pertinentia*]. Kgl Norsk. Vidensk. Selsk. Forh. 1934, VII, 32, 115-118. Trondheim (1935). **b - 1069**

List of about 60 species. Localities and dates.

**Steuer A.** - Die Copepodenfamilie der *Macrosetellidae* [*De familia « Macrosetellidae » ex Copepodis*]. 1 Abb., 2 Kart. Sitz.-ber. Akad. Wiss. Wien, CXLIV, 7/8, Abb. 1, 391-399. Wien (1935). **b - 1070**

Diese Familie wurde 1932 von Scott für *Macrosetella gracilis* Dana = (*Setella gracilis* Dana) aufgestellt. Bestimmungsschlüssel. Verwandtschaft und Verbreitung.

**Taton H.** - Contribution à l'étude du copepode gallicole *Mesoglicola Delagei quidor* [*Contributio in copepodum galliculum studendum « Mesoglicola Delagei quidor »*]. Trav. Stat. Biol. Roscoff, 12, 53-68. Paris (1934). **b - 1071**

Toute l'évolution du *Mesoglicola Delagei* a lieu dans la galle qu'il détermine sur la *Corynactis*. La pénétration se fait par l'extérieur et au stade Nauplius. Le développement doit comporter une succession de formes jeunes dont deux stades sont étudiés ici. Ensuite viennent les étapes de croissance sous la forme définitive jusqu'à l'adulte mûr des deux sexes. La ponte et le développement des oeufs ont lieu dans la galle. Les Nauplius sont libérés par déhiscence de l'assise ectodermique de la galle. (A).

**Templeman W.** - Local Differences in the Body Proportions of the Lobster, *Homarus americanus* [*De localibus differentiis quoad proportiones corporeas speciei « Homarus americanus »*]. 11 figs., Journ. Biol. Bd. Canada, I, 3, 213-226. Toronto (1935). **b - 1072**

The claws of males and the width and depth of abdomen of females increase at a higher rate than body length with approaching sexual maturity. Consequently for Lobsters over 20 cm. in length, males possess claws relatively larger and females an abdomen relatively wider and deeper in an area such as that near Pointe du Chêne where sexual maturity occurs at about 20 cm. than in that near Grand Manan where Lobsters only become sexually mature at about 34 cm.

**Ten Cate-Kazejewa B.** - Quelques observations sur les Bernards l'Ermite (*Pagurus arrosor*) [*Observationes circa speciem « Pagurus arrosor »*]. 24 fig., Arch. Néerl. Physiol. Homme et Animaux, XIX, 502-508. La Haye (1934). **b - 1073**

Expériences d'irritations mécaniques sur le *Pagurus arrosor*. Réactions.

**Ward M.** - Notes on a Collection of Crabs from Christmas Island, Indian Ocean [*De Crustaceis Decapodis ad insulam* Christmas *pertinenti-*

*bus* (*in Oceano Indiano*)]. 3 pls., Bull. Raffles Mus., 9, 5-28. Singapore (1934 & 1935). **b - 1074**

Systematic account of a collection of *Brachyura* comprising 35 spp., 12 of which are new.

**Willey A.** - Harpacticoid *Copepoda* from Bermuda L. [*Copepoda Harpacticoidea ad* Bermuda *pertinentia*]. 188 figs., Ann. and Magaz. Natur. Hist., XV, 85, 50-100. London (1935). **b - 1075**

Descriptive data on 36 spp. with several new subspecies and variations. 15 new species.

**Zariquiey Cenarro R.** - Los *Palinuridae* de las costas de España (Crust. Decap.) [*Palinuridae ad litora Hispanica pertinentes* (*Crustacea Decapoda*)]. 12 fig., Bol. Soc. Españ. Hist. Natur., XXXV 6, 311-330. Madrid (1935). **b - 1076**

El A. ha creido que podia tener intéres hacer un estudio de las langostas españolas y ello desde varios puntos de vista: 1° Estudiar el crecimiento de *Palinurus vulgaris* para ver si al crecer lo hace uniformemente, conservando en sus diferentes tamaños la misma proporcionalidad de sus órganos, o bien si el crecimiento modifica las relaciones de unas y otras, estableciendo diferencias que pudiesen conducirnos a error en la clasificación.

2° Ver si *P. vulgaris* conserva en el Mediterráneo los mismos caracterés que en el Atlántico.

3° Dejar bien sentado si en el Mediterráneo vive solo *P. vulgaris* o si hay además alguna otra especie.

**Zariquiey Cenarro R.** - Crustáceos del Mediterraneo (Decápodos macruros): *Nephrops norvegicus* Linné var. *meridionalis* [*Crustacea maris mediterranei* (*Decapoda macrura*): « *Nephrops norvegicus var. meridionalis* »]. 7 figs., Bull. Inst. Catal. Hist. Natur, XXXV, 7. Barcelona (1935). **b - 1077**

Caratteristiche che differenziano il *Nephrops norvegicus* descritto da Linneo e la specie che vive nel Mediterraneo. L'A. conferma che gli esemplari delle coste cantabriche e atlantiche corrispondono a quelli del Mediterraneo e propone per tutti la creazione della varietà *meridionalis* considerandola una sotto-specie o razza geografica.

## Pisces et Cyclostomata.

**Amemiya I.** - On the Local Variation of the Japanese Sardine, *Sardina melanosticta*, Especially on the Variation of the Number of Vertebrae [*Variationes pro locis speciei « S. melanosticta ». Agitur particulatim de numero vertebrarum*]. (In Jap.). Suisan Sikenz. Hôkoku, VI, 1, 1-12 (?) (1934). **b - 1078**

The Japanese sardine is distributed in a very wide range from Kyûsyû to Hokkaido in the Pacific as well as in the Japan Sea. This fish does not show any marked local variation externally, but a statistical study reveals that the mean value of the number of vertebrae is lower in south (warm) district than in the north. The cause of this local variation is discussed , and author concludes that the difference of the temperature of the water, in which the embryos and larvae of the fish develop seems to be the chief agent of the variation of the number of vertebrae.

**Awerinzew S.** - Einige Ergebnisse von Beobachtungen an *Clupea harengus* des Barentsmeeres [*Resultatus ex observationibus speciei « Clupea harengus » ad mare Barentsium pertinentis*]. Journ. Cons. Expl. Mer, X, 1, 66-74. Copenhague (1935). **b - 1079**

Erörterung des Rassenproblemes; Herkunft des Rassenbestandes, fluktuierende Merkmale. Bedeutung der Meeresströmungen für die Biologie der Heringe; Möglichkeit einer Veränderung der Biologie des norwegischen *C. harengus.*

**Balé H.** - Observations sur un Turbot anormal *Scolphthalmus* (*Rhombus*) *maximus* L. (Poisson Téléostéen Pleuronectidé) [*Observationes circa speciem « Scolphthalmus* (*Rhombus*) *maximus »*]. 6 fig., Bull. Soc. Scient. Bretagne, XI, 168-176. Rennes (1934). **b - 1080**

On remarque qu'en ce turbot l'œil droit est au sommet de la tête au lieu d'être près de l'autre œil. Observations sur la pigmentation et sur la présence de tubercules sur les deux côtés du corps du turbot.

**Barnard K. H.** - New Records and Descriptions of two New Species of South African Marine Fishes [*Adnotationes descriptionesque duarum novarum specierum piscium marinorum ad Africam merid. pertinentium*]. 3 figs., Ann. and Magaz. Natur. Hist., XIII, 74, 228-235. London (1934). **b - 1081**

*Pachymetopon germanum* n. sp., *Bidenichthys* near *Monothrix*, erected for *B. capensis* n. sp.

**Barnard K. H.** - Notes on South African Marine Fishes [*Notae de piscibus marinis sudafricanis*]. 7 figs., 3 pls. o. t., Ann. South Afric. Mus., XXX, 5, 645-658. Edinburgh (1935). **b - 1082**

This paper continues that published in February 1934 (Ann. Mag. Nat. Hist., XIII, 10, 228-235), and contains two new records: the description of a new genus and species of Clinid (i. e. *Climacoporus* n. g. and *C. navalis* n. sp.); an account of certain anatomical features of *Rhineodon*; notes on pug-headedness in a species of *Pagrus*, on an abnormal specimen of *Mola*, and on the gill-filaments of this genus. (A).

**Belloc G.** - Etude monographique du Merlu. *Merlucius merluccius* L. (Troisième partie) [*Studium monographicum speciei « Merluccius merluccius »*]. Nombr. figs et tabl., Rev. Trav. Off. Pêch. Marit., VIII, Fasc. 2, 30, 145-179. Paris (1935). **b - 1083**

Moyenne vertébrale du merlu. Triangle de fluctuation. Le marquage. Lieux de pêche. Carte des fonds chalutables des côtes de France. Feuilles de pêche des chalutiers rochelais. Échelle des coefficients de pêche. Courbe du croissance du merlu. Les migrations: Déplacements accidentels, migrations naturelles, déplacements du merlu pendant la première période de croissance.

**Bertin L.** - Les Poissons apodes appartenant au sous-ordre des Lyomères [*De piscibus apodis ad subordinem « Lyomeridae » pertinentibus*]. 2 pl., 47 fig., Carlsberg Found. Oceanogr. Exped. round the World 1928-30 and previous « Dana » Exped. Dana Rep., 3, 1-56. Copenhagen, London (1934). **b - 1084**

Le présent travail, consacré à l'anatomie et à la systématique des *Eurypharynx* et *Saccopharynx* adultes, se divise en trois parties: I Sous-ordre des Lyomères. II. Famille des Eurypharyngidés. III. Famille des Saccopharyngidés. Etymologie, synonymie, diagnose, distribution géographique, écologie. Deux nouvelles espèces: *Saccopharynx johnsoni*, *S. schmidti*.

**Bertin L.** - *Oxystomus Rafinesque* est une forme bien distincte, parmi les larves leptocéphaliennes [« *Oxystomus Rafinesque* » *forma est di-*

*stincta inter larvas Leptocephalorum*]. C. R. Acad. Sc., CC, 22, 1878-1880. Paris (1935). **b - 1085**

Sur les matériaux de *Oxystomus* dans un excellent état de conservation recueillis par le «Dana» l'A. met en évidence certains caractères différenciés d'*Oxystomus* et désigne les spécimens du Dana sous le nom de *O. Rafinesque* qui constitue probablement une phase de métamorphose de *Leptocephalus lanceolatus* Strömman (L. S.).

**Bertolini F. -** Ricerche sui Selaci mangiatori di plancton [*Investigationes de Selacis planctophagis*]. 2 fig., Boll. Soc. Ital. Biol. Sper., IX, 1269-1272. Napoli (1934). **b - 1086**

Anatomia della faringe di *Aodon edentulus* e delle lamelle delle branchie attraverso le quali viene filtrato il plancton.

**Bigelow H. B. & Schroeder W. C. -** Two Rare Fishes, *Notacanthus phasganorus* Goode and *Lyeichthys latipons* (Steenstrup and Hallgrimsson), from the Nova Scotia Banks [*Pisces duo rari « Notacanthus phasganorus » et « Lyeichthys latipons » a banchis Novae Scotiae provenientes*]. 3 pls., Proc. Boston Soc. Nat. Hist., XLI, 2, 13-18. Boston (1935). **b - 1087**

**Bonde (von) C. -** A Collection of marine Fishes from Zanzibar [*Collectio piscium marinorum ad* Zanzibar *pertinentium*]. 1 pl., Ann. Natal Mus., VII, 3, 435-458. London (1934). **b - 1088**

100 spp. are listed with synonymies, 9 are new: *Holacanthus rodriquesi*, *H. lasti*, *Hepatus coccinatus*, *Siganus laqueus*, *Pomacentrus zanzibarensis*, *Abudefduf quinquilineatus*, *Thalassoma bilateralis*, *Ostracion adersi*, and *O. chwakaensis*.

**Borodin N. A. -** Report on Fishes [*Relatio de piscibus*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College, 1934-35, 43-44. Cambridge U. S. A. (1935). **b - 1089**

Type specimens. New accessions, among which a collection of 83 Brazilian Fishes. Loans. Visitors. Research work begun on the anabiosis of Fishes.

**Borodin N. A. -** Aquatic Animals as Collectors [*De animalibus aquaticis quae pisces colligunt edendi causa*]. Science, LXXXI, 2112, 617. New York (1935). **b - 1090**

On account of some specimens of the young in a stage rarely found of two giant fishes, *Orthagoriscus mola* and *Masturus lanceolatus*, having been found in the stomachs of Dolphins, the researcher here invites icthyologists to dissect and examine the stomachs of other voracious aquatic animals.

**Borri C. -** Breve notizia di catture di pesci non comuni nell'alto Tirreno [*Notitia brevior de piscibus notandis ad Tyrrhenum sept. pertinentibus*]. Atti Soc. Tosc. Sc. Natur. (Pr. Verb.), XLII, 3, 61-64. Pisa (1934). **b - 1091**

Catture di *Callanthias peloritanus*, *Hoplostethus mediterraneus*, *Ausonia Cuvieri*.

**Brighenti D. -** Intorno alla cattura di un grande esemplare di *Orthagoriscus mola* Sinn. nelle acque di Rimini [*De captura magni cuiusdam exemplaris speciei « Orthagoriscus mola » in aquis Ariminensibus*]. Boll. Pesca Piscicolt. e Idrobiol., X, 6, 764-768. Roma (1934). **b - 1092**

Descrizione di un esemplare di pesce luna di grandi dimensioni catturato nelle acque di Rimini (lungh. tot. m. 2,55; alt. mass. m. 2,75).

**Bruun A. Fr. -** Flying-Fishes (*Exocoetidae*) of the Atlantic. Systematic and Biological Studies [*De piscibus volantibus* (*Exocoetidae*) *Oceani Atlantici. Studia systematica et biologica*]. 7 pls., 30 figs., Carlsberg Found. Oceanogr. Exped. round the World 1928-30 and previous « Dana » Exped., « Dana »-Rep. No. 6, 1-106. Copenhagen & London (1935). **b - 1093**

Preceding studies on Flying Fishes. Generic nomenclature within the *Exocoetidae*. Methods of investigation. Key for determination of adult specimens of the Atlantic species of *Exocoetidae*. Description of 17 species among which is a new subspecies *Oxyparhamphus micropterus similis*. Proposed synonymy. Relationships. Distribution. Synopsis of the geographic-biological differentiation.

**Bruun A. Fr. -** *Parexocœtus*, a Red Sea Flying Fish in the Mediterranean [« *Parexocœtus* » *piscis volans ad mare Rubrum pertinens in mari Mediterraneo repertus*]. Nature, CXXXVI, 3440, 553. London (1935). **b - 1094**

On account of two specimens of *Parexocœtus* found in the eastern part of the Mediterranean A. here suggests research workers to take up the question as to the immigration of this species from the Red sea.

**Bückmann A. & Kotthaus A. -** Ein Vergleich der Schollenbevölkerung der Flämischen und der Deutschen Bucht. (Dtsch-Text, Engl. Rés.) [*Comparatio inter populationem Pleuronectidarum sinus Flandrici et eamdem populationem Sinus Germanici*]. 3 graph. Fig., 3 Tab., Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 3ème partie, Appendices (1934-35), 42-56. Copenhague (1935). **b - 1095**

Die zugrunde dieser Studien liegenden Untersuchungen sind grösstenteils 1931-1934 mit « Nautilus » ausgeführt worden. Verschiedenheiten in Bezug auf Verteilung, Bevölkerungsdichte, Alterszusammensetzung, Grössenverhältnisse und Wachstumgeschwindigkeit sind bestätigt worden. Es wird behauptet, dass diese Unterschiede in den verschiedenen Fangmethoden, den natürlichen Arealen sowie den verschiedenen Nahrungsverhältnissen ihren Grund haben. Weitere Untersuchungen sind aber nötig um genauere Ergebnisse zu erhalten.

**Budker P. -** Description d'un genre nouveau de la famille des Carcharinidés [*Carcharinidea. Descriptio novi generis*]. 3 fig., Bull. Mus. Nat. Hist. Natur., VII, 2, 107-112. Paris (1935). **b - 1096**

Description d'un petit requin, très proche du genre *Hemigalecus* et pour lequel l'A. a créé le nom générique de *Paragaleus* et le nom spécifique *P. Gruveli*.

**Budker P. -** Sélaciens capturés dans la région de Dakar [*De Selacis captis in regione* Dakar]. Bull. Mus. Nat. Hist. Natur., VII, 2 sér., 3, 183-189. Paris (1935). **b - 1097**

Liste des espèces de Sélaciens capturés dans l'anse de Hann, dont une forme est nouvelle, *Paragaleus Gruveli*. *Hypoprion brevirostris* Poey a été signalée pour la première fois de cette partie de la côte occidentale d'Afrique.

**Burton E. -** Shark Attacks Along the South Carolina Coasts [*De Squalis in litoribus* South Carolina]. Scient. Monthly, March, 279-283. New York (1935). **b - 1098**

Some accounts of fierce attacks of shark upon bathers off the South Carolina Coast within the last decade. List of species of shark having been taken in and around Charleston.

**Cahn A. R.** - The Spiny Dogfish (*Scyllium*). A Laboratory Guide [« *Scyllium* » *spinosum. Elenchus*]. xii + 94 pp. Macmillan Co. New York (1934). **b - 1099**

Reprint of the 1926 edition.

**Chabanaud P.** - Les Soléidés du groupe *Zebrias*. Définition d'un sous-genre nouveau et description d'une sous-espèce nouvelle [« *Soleidae* » *ad* « *Zebrias* » *pertinentes. Definitio novis subgeneris et descriptio novae subspeciei*]. Bull. Soc. Zool. France, LIX, 420-436. Paris (1934). **b - 1100**

Diagnose des genres *Zebrias, Aesopia, Coryphœsopia* et *Phyllichthys*. Catalogue systématique. *Coryphœsopia cornuta barnardi*, subspec. nov. *Pseudœsopia*, subgen. nov.

**Chabanaud P.** - *Achiridae* nec *Trinectidae*. Caractères et synonymie de deux génotypes systématiques certains: *Achirus achirus* Linné 1758 et *Trinectes maculatus* (Bloch MS), Schneider 1801 [*Achiridae non Trinectidae. Caracteres et synonymia duorum genotyporum systematicorum:* « *Achirus achirus* » *et* « *Trinectes maculatus* »]. 11 fig. Bull. Inst. Océanogr., 661, 1-24. Monaco (1935). **b - 1101**

Problème taxonomique. *Pleuronectes achirus* Linné 1758 et *Pleuronectes lineatus* Linné 1758. Clef dichotomique des unités morphologiques du genre *Achirus-Trinectes maculatus* Schneider. Clef dichotomique des unités morphologiques du genre *Trinectes*. Clef dichotomique d'autres genres. Catalogue systématique de la famille des *Achiridae*.

**Chabanaud P.** - Poissons et Méduses acalèphes [*De piscibus et medusis acalephis*]. VII^e Congr. Int. Aquicult. & Pêche Paris 1931, III, 346-348, Impr. du Loiret. Orléans (1935). **b - 1102**

Etude sur la question de la symbiose ou du parasitisme existant entre les Cœlentérés et *Trachurus trachurus* L. ainsi que entre *Gadus, Stromateus fiatola, Schedophilus medusophagus* et très rarement le jeune *Scomber*.

**Chevey P.** - Révision synonymique de l'Oeuvre ichtyologique de G. Tirant [*Reinspectio synonymica operis ichthyologicae cuius auctor* G. Tirant]. Note Inst. Océanogr. Indoch., Stat. Marit. Cauda, 7, 1-291. Saigon (1934). **b - 1103**

Mise au point des noms spécifiques et parfois même génériques, employés par G. Tirant dans son œuvre ichtyologique, dont la réimpression a été publiée en 1929.

Enumeration des poissons de la Basse Cochinchine et du Cambodge.

Chaque page contient: 1) les appellations de Tirant, avec les synonymies, références et noms indigènes cités par lui; 2) la liste chronologique des synonymes avec les références bibliographiques et les commentaires nécéssaires; 3) les noms actuellement valables pour chaque espèce, avec l'indication des savants auxquels l'A. s'est principalement référé pour établir la validité des noms spécifiques ou génériques.

**Chevey P.** - Sur la présence du genre *Anguilla* en Indochine Française [*De genere* « *Anguilla* » *in Indosinica regione Gallica*]. C. R. Acad. Sc., CCII, 26, 1422-1424. Paris (1935). **b - 1104**

Note sur la récente découverte par le Service de Pisciculture de l'Institut des recherches agronomiques de Hanoï, d'un poisson, nommé Cà linh ou Cà thiêt linh en Tonkinois pêché dans le fleuve Rouge à Thauh-Tri (Province de Hadong) et dans lequel l'A. a reconnu l'*Anguilla japonica* Schlegel, espèce des régions tempérées du Pacifique NW. Cette découverte présente un triple intérêt: 1) parce qu'elle remet en cause l'exactitude de la détermination par Tirant de l'*Anguilla Elphinstonei* Sykes (= *bengalensis* Gray) parmi les poissons de la rivière de Hué; 2) elle étend à tout le Nord de l'Indochine l'aire de répartition d'*A. japonica* et 3) elle vient à l'appui des conceptions exposées par Krempf et par l'A. sur la circulation des eaux dans la mer de la Chine.

**Clemens W. A. & Clemens L. S.** - Contributions to the Life-History of the Sockeye Salmon (n°. 20) [*Contributio in cyclum evolutionis speciei* « *Oncorhynchus nerka* »]. 31 tables, 4 graphs, Rep. Comm. Fish. Brit. Columb., 1934, App., 20-58. Victoria B. C. (1935). **b - 1105**

Twentieth annual contribution to the series of papers on the life-history of the sockey salmon, which covers the period 1913 to 1934, inclusive. It contains a most valuable report of the sockey-salmon runs to the four main river systems of British Columbia. Under the title « Sex distribution », authors discuss the general question of the sex proportions of the various age-groups in the four river systems and the effect of sampling upon these ratios.

**Clemens W. A.** - The Pacific Salmon in British Columbia Waters [*Salmo Oceani Pacifici in aquis Columbiae Britannicae*]. 1 table. Rep. Comm. Fish. Brit. Columb., 1934, 103-105. Victoria, B. C. (1935). **b - 1106**

Identification of the adults of five species of British Columbia Salmon and their life-history. Certain characters commonly used in the identification of the five species are pointed out in detail and a key is provided which may be used for the identification of the various species.

**Davis F. M.** - British Hake Research [*Investigationes a Britannis susceptae in speciem* « *Merlucius vulgaris* »]. Rapp. Pr.-Verb. Cons. Expl. Mer, Rapp. Atlantique 1933, 93, 31. Copenhague (1935). **b - 1107**

Short note on Mr. Hickling's hake investigations in Portugal and their applications on the catches of hake at British ports.

**De Buen F.** - Primera campaña biológica a bordo del « Xauen » en aguas de Mallorca (Abril 1933). Peces [*De prima navigatione biologiae causa in navi* « *Xauen* » *ad Balearem Majorem.* (*Mense Aprili 1933*). *Pisces*]. Trab. Inst. Españ. Oceanogr., 11, 87-89. Madrid (1934). **b - 1108**

*Echelidae, Syngnathidae, Gadidae, Merlucciidae, Gobiidae, Callionymidae, Trachinidae, Uranoscopidae, Rhombidae, Caproidae, Labridae, Scorpaenidae, Triglidae, Serranidae, Lophidae*. Lista de las especies capturadas.

**De Buen F.** - Fauna ictiològica. Catàlogo de los peces Ibéricos: de la planicie continental, aguas dulces, pelàgicos y de los abismos pròximos. Parte I, II [*Fauna ichthyologica. Catalogus piscium hibericorum plateae continentalis, aquarum dulcium, pelagicorum abyssorumque proximorum. Pars I, II*]. 20 + 33 lam., 1 mapa. Ist. Españ. Oceanogr., Notas y Resùm., II, 88, 1-89; 89, 91-149. Madrid (1935).

(—) Prim. Conf. Oceanogr. Ibero-Americana-Trab-Pres. n° 1, 1-83 Madrid. **b - 1109**

Catàlogo de la fauna ictiològica ibérica, no sòlo de aquellas especies continentales que pueblan las aguas dulces, o, también, los habitantes de la prolongaciòn sumergida de las tierras firmes, sino igualmente las propriamente pelàgicas o de los abismos no alejadas de la Penìnsula Ibérica. Ne los catàlogo se precise para cada especie la profundidad o clase de fondo que frecuentan y se tiene referencia en la repartiiciòn geogràfica de los peces. Obras consultatas al organizar el Catálogo.

Clase *Cyclostomata* (4 especies) y Clase *Elasmobranchii* (296 especies). En la segunda parte descrición de las especies de las fam: *Syngnathidae, Hippocampidae, Atherinidae, Mugilidae, Scombridae, Cybiidae, Thunnidae, Carangidae, Serranidae Sparidae, Scorpaenidae, Cottidae, Triglidae, Labridae, Gobiidae, Blennidae*, etc.

**Delpino I.** - La diffusione e la distribuzione in Italia della *Trutta genivittata* (Heckel-Kner, 1858) [*De diffusione et distributione in Italia speciei* « *Trutta genivittata* »]. 6 fig., Boll. Pesca, Piscicolt. e Idrobiol., XI, 2, 196-210. Roma (1935). ( — ) Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Nat., XXI, 1, 54-58. Roma (1935). **b - 1110**

Descrizione dei caratteri somatici, dentatura, numero dei raggi delle pinne, etc., di alcuni esemplari di *Trutta genivittata* catturati nell'Adige; area di distribuzione di questo salmonide in Italia a mezzo di una cartina schematica del bacino del Po, nel cui corso superiore, compresi gli affluenti, essa è comunemente diffusa.

**Desbrosses P.** - Présence inusitée de *Balistes balistes capriscus* (Linné; Ed. Gmelin) sur les côtes du Morbihan en 1931 et sur les côtes de France en 1930 et 1931 [*Agitur de inusitata praesentia speciei* « *Balistes balistes capriscus* » *in litoribus regionis* Morbihan *A. 1931 et in litoribus Gallicis A. 1930 et 1931*]. Bull. Soc. Zool. France LIX, 236-241. Paris (1934). **b - 1111**

La présence du *Balistes* fut causée par l'extension maxime novénaire (prévue par Le Danois) des eaux Atlantiques chaudes vers le Nord, et qui a eu lieu en Novembre 1930.

**Desbrosses P.** - Contribution à la connaissance de la biologie du rouget-barbet en Atlantique Nord (II) *Mullus barbatus* (Rond), *surmuletus* (Fage) [*Contributio in cognoscendam biologiam speciei* « *Mullus barbatus surmuletus* » *Oceani Atlantici Nordici* (*II*)]. 4 fig., 3 tabl., Rev. Trav., Off. Scient. Pêches Marit., VIII, 3, nº. 31, 255-267. Paris (1935). **b - 1112**

L'A. avait exposé dans un ouvrage antérieur (« Rev. Trav. », VI, 3, 1933), les resultats sur la croissance, la longévité, la taille et l'âge à la première maturité sexuelle, la formule vertébrale du rouget-barbet d'Atlantique Nord. Dans le présent ouvrage il cherche, à l'aide de la technique des marquages, une confirmation à ces données sur la croissance et sur les migrations de l'espèce, avec référence spéciale aux pêches saisonnières et aux prévisions dans le rendement de ces pêches.

**Di Caporiacco L.** - Spedizione Nello Beccari nella Guiana Britannica; Pesci [*Agitur de expeditione ad Guianam Britannicam*, Nello Beccari *duce*]. Monit. Zool. Ital., XLVI, 3, 55-70. Firenze (1935). **b - 1113**

L'A. illustra il materiale ittiologico raccolto dalla spedizione N. Beccari nella Guiana britannica (1931-32). I pesci raccolti erano 263, appartenenti a 69 specie.

**Dons C.** - Den zoologiske avdeling. Fiskesamlingen [*Sectio zoologica. Pisces*]. 3 fig., Kgl. Norsk. Vidensk, Selsk. Mus. Årsber., 1933, 41-45. Trondhjem (1934). **b - 1114**

New acquisitions: *Polyprion americanus, Callionymus lyra, Trigla gurnardus, Sparus centrodontus, Raniceps raninus, Gaidropsarus argenteolus, Mugil auratus, Scombresox saurus, Bothus rhombus, Myctophum elongatum, Labrus berggylta, Lampris guttatus, Regalecus glesne, Mola mola, Acipenser sturio, Galeus vulgaris.*

**Dons C.** - Notes on Fishes. II. On the Distribution of some *Labridae* [*Notae de piscibus. Labridae, earumque distributio*]. Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 24, 85-86. Trondhjem (1935). **b - 1115**

5 species are mentioned, 4 of which are generally very scarce, all belonging to the coasts of Møre, Trøndelag, and Nordland.

**Dons C.** - Norges strandfauna. VI. Fisk. [*De fauna litorea. VI. Pisces*]. Kgl. Norsk. Vidensk. Selsk. Forh. 1934, VII, 25, 87-90. Trondhjem (1935). **b - 1116**

Fundorte für 21 Spezies.

**Ebina Ken-ichi** - Descriptions of Two New Fishes from Kominato, Prov. Bôsyû [*Descriptio duorum novorum piscium a* Kominato *provenientium*]. 5 figs., 3 tabl., Journ. Imp. Fish. Inst., XXX, 3, 211-217. Tokyo (1934). **b - 1117**

A collection of tide-pool Fishes was made in August, 1932 in the above mentioned region, including two new species *Apogon kominatoensis* and *Clariger papillosus* which are described in the present paper.

**Ege V.** - The Genus *Stomias* Cuv., Taxonomy and Bio-Geography. (Based on Adolescent and Adult Specimens) [*Agitur de genere* « *Stomias* ». *Quaestio de taxonomia et biogeographia cuius fundamenta ponuntur in exemplaribus adulescentibus atque adultis*]. Charts, 1 pl., 12 figs. Carlsberg Found. Oceanogr. Exped. round the World 1928-30 and previous « Dana »-Exped., « Dana »-Rep., No. 5, 1-58. Copenhagen & London (1934). **b - 1118**

Description and synonymies of 6 species. Systematic review and geographical survey. Literature. Appendix: List of records.

**Ehrenbaum E.** - Naturgeschichte und wirtschaftliche Bedeutung der Seefische Nordeuropas [*De historia naturali et momento oeconomico piscium marinorum in Europa Sept.*]. 276 Abb., 26 Taf., Sonderausgabe aus Handb. Seef. Nordeuropas, Band II. Stuttgart (1936). **b - 1119**

Dies Werk ist aus grossem Interesse für Fischerei-Interessenten aus der Praxis sowohl als für Fischereibiologen. Beschreibung und Systematik der einzelnen Arten und Rassen; Erbrütung und künstliche Zucht von Seefischen, Verpflanzungsversuche, Schwankungen und Erschöpfung der Bestände, Fangstatistik, getrennt nach Arten, Ländern und Fanggebieten usw. Sachregister und Bibliographie.

**Fage L.** - Sur la présence du *Cottus bubalis* Euphrasen (Poisson Téléostéen) en Mediterranée (Sète) [*De* « *C. bubalis* » *in Mediterraneo*]. C. R. Séances Soc. Biogéogr., XI, 90, 21-23. Paris (1934). **b - 1120**

L'A. signale la capture, au large de Sète, d'un *Cottus bubalis*, genre dont les espèces se trouvent en Europe, seulement dans l'Atlantique septentrional. Hypothèse de l'A. sur cette capture.

**Fowler H. W.** - Natal Fishes obtained by Mr H. W. Bell-Marley [*De piscibus a* Natal *provenientibus a* H. W. Bell-Marley *obtentis*]. 14 figs., Ann. Natal Mus., VII, 3, 403-433. London (1934). **b - 1121**

*Anchoviella indica* new to S. African coast, *Fundulus sukuziensis* n. sp., *Rhinogobius Robinsoni* n. sp. and some other spp.

**Fowler H. W.** - The Fishes of Oceania. Supplement 2 [*De piscibus Oceaniae. Supplementum II$^{um}$*]. 4 figs., Mem. Bernice P. Bishop Mus., XI, 6, 385-466. Honolulu (1934). **b - 1122**

This supplement includes chiefly distributional references that have appeared in ichthyological papers since the publication of author's « Fishes of Oceania » and « Supplement I ». Description of species. Bibliography. Index.

**Fowler H. W.** - Zoological Results of the third de Schauensee Siamese Expedition, Part I. Fishes. Part V. Additional Fishes [*Resultatus zoologici tertiae expeditionis Siamensis a* de Schauensee *peractae Pars. Ia, Pisces*]. 129 + 13 figs., Proc. Acad. Natur. Sc. Philadelphia 1934, LXXXVI, 67-163; 335-352 Philadelphia (1935). **b - 1123**

The first collection containing specimens obtained from the markets, the seashore and fresh waters of Bali, Dutch Indies, numbers 727 specimens represented by 77 species, of which 3 gobies are described as new. The second collection from Siam contains 4500 specimens, over half of which are cyprinoids. 50 species are new, represented by 9 new genera or subgenera. The fifth collection comprises 149 specimens referable to 41 species, 9 of which are new, 1 new genus and 1 new subgenus, all from Siam.

**Fowler H. W.** - The Buckler Dory and Descriptions of Three New Fishes from off New Jersey and Florida [« *Zenopsis conchifer* ». *Descriptio trium novorum piscium a* New Jersey *et* Florida *provenientium*]. 4 pls., Proc. Acad. Natur. Sc. Philadelphia, 1934, LXXXVI, 353-361. Philadelphia (1935). **b - 1124**

*Macrorhamphosus Otteri*, n. sp., *Parathunnus Rosengarteni* n. sp., *Antigonia Browni*, n. sp. The distribution of the Buckler dory *Zenopsis conchifer* (Lowe) is studied.

**Fowler H. W.** - Fishes Obtained by Mr. H. W. Bell-Marley Chiefly in Natal and Zululand in 1929 to 1932 [*De piscibus captis ab* H. W. Bell-Marley *praecipue in Provinciis* Natal *et* Zululand *A. 1929-1932*]. 52 figs., Proc. Acad. Natur. Sc. Philadelphia, 1934, LXXXVI, 405-514. Philadelphia (1935). **b - 1125**

The collection studied includes 855 specimens represented by 330 species, 21 of which are new to science.

*Pseudocrenilabrus, Drepanoscorpis* and *Leiœleotris* are new genera. Many of the species are additions to the South African fauna, besides noteworthy, and for this reason the A. has given a number of descriptive notes.

**Fraser-Brunner A.** - A new Species of Eel of the Genus *Ophichthus* Ahl. [*Anguillae species nova ad genus* «*Ophichthus*» *pertinens*]. 1 fig., Ann. and Magaz. Nat. Hist., XIII, 76, 465-468. London (1934). **b - 1126**

*Ophichthus cyclorhinus* n. sp. from Queensland.

**Fraser-Brunner A.** - New or Rare Fishes from the Irish Atlantic Slope [*Pisces novi seu rari ad Plateam Continentalem Hibernam Atlanticum spectantem pertinentes*]. 5 figs., Proc. R. Irish Acad., XLII, B 19, 319-326. Dublin (1935). **b - 1127**

The species described in this paper belong to the following families: *Hexanchidae, Squalidae, Myctophidae, Coryphenoididae, Gadidae, Trachichthyidae, Apogonidae, Carangidae, Stromateidae, Oneirodidae, Gigantactinidae.* The novelties are as follows: *Nematomerus farrani, Dolopichthys inimicus, D. hibernicus, Gigantactis filibulbosus.*

**Furnestin J.** - La Cardine. (*Lepidorhombus megastoma* Donovan = *Lepidorhombus Whiff.* Walbaum). Résumé des connaissances acquises sur la biologie de ce poisson [*Species* « *Lepidorhombus megastoma*» = «*Lepidorhombus Whiff*». *Compendium notionum circa biologiam*]. Nombr. fig. et tabl., Rev. Trav. Off. Pêch. Marit., VIII, fasc. 2, 30, 203-249. Paris (1935). **b - 1128**

Synonymie. Place de la classification. Caractères spécifiques: Proportions du corps. Téguments. Coloration. Tête. Nageoires. Organes internes. Appareil génital. Squelette. Distribution géographique, bathymétrique et saisonnière. Nourriture. Ponte. Croissance. Recherches biométriques sur la population de cardines de l'Atlantique Nord-Est. Valeur des caractères, caractères métriques et numériques.

**Gandolfi-Hornyold A.** - Osservazioni sull'età, la crescita e il sesso delle anguille argentine delle valli di Comacchio [*De observatis aetate, accretione, sexu anguillarum argentinarum in vallibus Comacinis*]. Atti Acc. Sc. Med. Natur. e Fis. Matem. di Ferrara, XI, 92-116. Ferrara (1934). **b - 1129**

**Gandolfi-Hornyold A.** - Observations sur la Civelle d'Archachon de l'hiver 1932 [*De observatis anguillis ad* Arcachon *pertinentibus, hieme 1932*]. Tables., Bull. Stat. Biol. Arcachon, XXXI, 107-115. Bordeaux (1934). **b - 1130**

Etude critique des résultats de la mensuration des civelles pêchées à trois reprises dans le bassin d'Archachon, concernant en particulier les dimensions et le poids des civelles par rapport à leur âge.

**Gandolfi-Hornyold A.** - La petite anguille jaune de l'Etang de l'Or (Hérault) [*De anguillula flava ad stagnum* de l'Or (Hérault) *pertinente*]. Tabl., Communications VIIe Congr. Int. Aquicult. & Pêche, Paris 1931, III, 216-222. Impr. du Loiret. Orléans (1935). **b - 1131**

Recherches conduites à la Station zoologique de Sète sur 258 petites Anguilles concernant sexe, âge, croissance et formation des écailles. Expériences sur la prépondérance du sexe féminin après transplantation.

**Gill E. L.** - Flying Fishes [*De piscibus volantibus*]. Nature, CXXXVI, 3438, 478-479. London (1935). **b - 1132**

Analysis of the different movements of flight observed by the A. on fishes at the west coast of Africa.

**Gilson G.** - Herring Work in 1934-35. Spent Herring in the Coastal Zone of the Intermediate Channel-North Sea Region [*Investigationes de Aringis A. 1934-35. De aringis qui ova deposuerunt in zona litorea canalis intermediarii regionis Maris Nordici*]. 2 diagrs., Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 3ème partie. Appendices (1934-1935), 72-74. Copenhague (1935). **b - 1133**

Being a clearly distinct concentration of spent fishes the shoal of Herrings that regularly visits the French and Belgian coasts between Cape Gris-Nez and the Scheldt offers a favourable object for the study of the life cycle of the species in the Southern North Sea. The results obtained are expressed in diagrams concerning number examined, mean weight of a day's capture, total weight landed in the season, mean value of 100 kg., total value of the season, number of individuals destroyed during 1930-35.

**Giltay L.** - Notes ichthyologiques. IX. Contributions à l'étude du genre *Xenopomatichthys* (*Kneriidae*) [*Notae ichthyologicae. IX Contributio in studendum genus* « *Xenopomatichthys* (*Kneriidae*) »]. 14 fig., Bull. Mus. R. Hist. Natur. Belgique, X, 44, 1-22. Bruxelles (1934). **b - 1134**

Dans cette courte étude l'A. a signalé quelques-unes des particularités du genre *Xenopomatichthys*, de la famille des *Kneriidae*, qui comprend en outre le genre *Kneria* et qui est exclusivement africaine. A plusieurs reprises il a rapproché les *Xenopomatichthys* des *Chanidae* avec lesquels ils ont des affinités certaines. Les observations de l'A. confirment de la sorte les idées de Tate Regan qui réunit dans le même voisinage les *Chanidae*, les *Phractolemidae* et les *Cromeriidae*.

**Ginsburg I.** - Description of five new Species of Seahorses [« *Hippocampus* ». *Descriptio quinque novarum specierum*]. Journ. Washington Acad. Sc., XXIII, 12, 560-563. Washington (1933). **b - 1135**

*Hippocampus europaeus*, France, *H. reidi*, Grenada, Panama, Jamaica, Haiti, *H. obtusus*, off Cape Hatteras, *H. hildebrandi* Pacific coast of Panama, *H. regulus* Harbor Isl., Texas and Mexico.

**Ginsburg I.** - *Bollmania litura*, a New Species of Goby [« *Bollmania litura* » *species nova ex* « *Gobius* »]. 1 pl., Smithson. Miscell. Collection, XCI, 20, 1-3. Washington (1935). **b - 1136**

*Bollmania litura* n. sp. Description of type, comparison, holotype.

**Gorsky N. W.** - Der Lachs (*Salmo salar brevipes* Smitt) des Wyg-Flusses, sein Fang und seine Biologie [« *Salmo salar brevipes* ». *Quaestio de piscatione et biologia*]. (In Russ., Dtsch. Rés.). Tab., 4 Taf. a. T., Rep. Karelia Scient. Res. Fish. Stat., I, 173-225. Leningrad (1935). **b - 1137**

Ergebnisse der in den Jahren 1930 und 1931 durchgeführten Forschungen über den Lachs aus dem Wyg-Flusse. Beobachtungen über die Migrationen des Lachses in dem Flusse, welcher im unteren nördlichen Teil der Onjega-Bucht des Weissen Meeres mündet. Besondere Beschreibungen des Frühjahrs- und des Sommerzuges des Lachses. Die verschiedenen Fangmethoden mit besonderer Berücksichtigung des sogenannten Zaunfanges, welcher einzig gewerblich in Betracht kommt. Der Einfluss der Migrationen des Fisches auf die Dynamik der Fänge. Die zwei Perioden der Lebensgeschichte des Lachses. Verringerung der Laichplätze durch Verunreinigung des Wassers.

**Gridelli E.** - Le trote della Venezia Giulia [*De Truttis in regione Venetia Julia*]. Not. Ist. Biol. Rovigno, 16, 1-10. Rovigno (1935). **b - 1138**

Sistematica delle trote della Venezia Giulia e dell'Italia settentrionale . *Salmo trutta* L. - *fario* L. si trova nella Venezia Giulia, originariamente solo nei torrenti e fiumi del bacino del Tarvisio. La diffusione del *S. marmoratus.*

**Gudger E. W.** - Two Partially Ambicolorate Flatfishes (*Heterosomata*). I. A Summer Flounder, *Paralichthys dentatus.* II. A Rusty Dab, *Limanda ferruginea* [*Heterosomata duo partialiter ambicolorata*: « *Paralichthys dentatus* » *et* « *Limanda ferruginea* »]. 3 figs., Amer. Mus. Novit., 768, 1-8. New York (1935). **b - 1139**

Detailed description of the specimens. General notes.

**Gudger E. W** - A Photograph and Description of *Masturus lanceolatus* Taken at Tahiti, May, 1933. The sixteenth Adult Specimen on Record [*Photographia et descriptio speciei* « *Masturus lanceolatus* » *captae* Tahiti. *XVI*$^a$ *species adulta adnotata*]. 2 fig., Amer. Mus. Novit., 778, 1-7. New York (1935). **b - 1140**

Capture of *Masturus* at Tahiti. Discovery of *Masturus* at Mauritius. Relationships of *Masturus*. History and distribution.

**Gudger E. W.** - The Oblong or Truncate-tailed Ocean Sunfish, *Ranzania truncata*, at Mauritius [*Piscis oceanicus* « *Ranzania truncata* », *apud* Mauritius]. Nature, CXXXV, 3414, 548. London (1935). **b - 1141**

The brief, untechnical description made by Nicolas Pike sixty-two years ago constitutes the first record of the presence of the oblong sunfish in the Indian Ocean.

In the Barnard's « Monograph » three specimens are listed from False Bay, Table Bay and Dassen Island. According to the A. *Ranzania* was brought from Mauritius or elsewhere in the western Indian Ocean by the currents to South Africa.

**Gudger E. W. & Firth F. E.** - An almost totally ambicolorate Halibut, *Hippoglossus Hippoglossus*, with partially rotated Eye and hooked dorsal Fin, the only recorded Specimen [« *Hippoglossus Hippoglossus* » *totus ambicoloratus, oculo praeditus partialiter rotato pinnaque dorsali incurvata, species una adnotata*]. 2 figs., Amer. Mus. Novit., 811, 1-7. New York (1935). **b - 1142**

This specimen, probably one of the most anomalous flatfishes found, was taken in 200 fathoms of water on St. Peter's Bank of the northern part of Nova Scotia. Detailed description of this species in comparison with a normal one. Color abnormalities; position of eye; behaviour.

**Hardenberg J. D. F.** - Miscellaneous Notes on Indian Fishes, I-IV [*Miscellanea de piscibus indianis. I-IV*]. Natuurk. Tijdschr. Ned. Ind., XCV, 49-57. Den Haag (1935). **b - 1143**

The behaviour and occurrence of fish-species and other animals, which are attracted by light, is described. Fishspecies which are attracted by light belong chiefly to the different families of the *Synentognathi* and to the genera *Mugil* and *Atherina*. A list of species is given. Furthermore the propagation of *Arius maculatus* is described. The young are kept in the mouth of the father, which seems to receive eggs from more than one female. The inner ventral ray of the ripe female is flattened and thickened and has probably a function at the copulation. Also a white individual of *Rachycentron canoctus* and a *Zenarchopterus* individual with an inversed colourpattern is described. (A.)

**Hardenberg J. D. F.** - Some new or rare Fishes of the Indo-Australian Archipelago. IV [*De piscibus novis rarisque ad archipelagus Indoaustraliense pertinentibus*]. Treubia, XV, 2, 131-140. Buitenzorg (1935). **b - 1144**

Contains detailed and eventually emended descriptions of *Narcine timlei* (Schneider), *Hemisilurus heterorhynchus* (Blkr.), *H. scleronema* Blkr, *H. moolenburghi* Weber and de Beaufort, *Arius leptonotacanthus* Blkr., *Ichthyocampus carce* Ham. Buch., new diagnosis of the genus *Typhlachirus* (Hubbs.) Hardenberg (Fam. *Soleidae*), *Caranx* (*Caranx*) *ignobilis* (Forsk.), *Seriola bonariensis* C. V., *Grammatorcynus bilineatus* (Rüpp.), *Plectropoma oligacanthus* Blkr., *Pempheris sasahii* (Jordan and Hubbs.), and *Pempheris nyctereutes* Jordan and Evermann (A.).

**Herre A. W.** - Some Chinese Gobies with Description of one new Species [*Gobiidae sinenses cum descriptione novae speciei*]. Lingn. Sc. Journ. XII, 3, 429-430. Canton (1933). **b - 1145**

*Cryptocentrus cheni*, n. sp. 17 other spp. are recorded.

**Herre A. W.** - New Fishes Obtained by the Crane Pacific Expedition [*Pisces novi ab expeditione* Crane *in Oceanum Pacificum provenientes*]. Field Mus. Natur. Hist., Zool. Ser. (Publ. 335), XVIII, 12, 381-438. Chicago (1934). **b - 1146**

Seven new genera and about 56 new species.

**Hikita T.** - Flatfishes found in Northern Japan [*Pleuronectidae in Japonia sept. repertae*]. (In Jap., Engl. Rés.). Bull. School of Fish., IV, 10-15. Sapporo, Jap. (1934). **b - 1147**

**Hora S. L.** - Physiology, Bionomics and Evolution of the Air-Breathing Fishes of India [*De physiologia, bionomia, evolutione piscium pulmonatorum Indiae*]. 1 pl., Trans. Nat. Inst. Sc. India, I, 1. 16, pp. Calcutta (1934). **b - 1148**

**Horsburgh D. B.** - The Templeton Crocker Expedition of the California Academy of Sciences, 1932. A Revision of two Species of *Vinciguerria*, A Genus of Deep Sea Fishes [*De expeditione* Templeton Crocker *ab Academia Scientiarum peracta A. 1932. Reinspectio duarum specierum ad « Vinciguerria » pertinentium, genus piscium in aqua profunda viventium*]. Proc. Calif. Acad. Sc., XXI, 19, fourth ser., 225-232. San Francisco (1935). **b - 1149**

Six species are known at present, two of which are doubtful and described here with indication of synonyms: *Vinciguerria lucetia* (Garman) and *V. nimbaria.*

**Horst (van der) C. J.** - Two New Fishes from Transvaal [*Pisces duo novi ad* Transvaal *pertinentes*]. 2 figs., Ann. Transvaal Mus., XV, 3, 281-282. Pretoria (1934). **b - 1150**

*Engraulicypris whitei* and *Haplochilus carlislei.*

**Hubbs C. L.** - The scientific Name of two Sunfishes, *Helioperca macrochira* (Rafinesque) and *Eupomotis microlophus* (Günther) [*Nomen scientificum duorum piscium*]. Occas. Pap. Mus. Zool. Univ. Michigan, 305, 1-12. Michigan (1935) **b - 1151**

*Helioperca macrochira* (Raf.) = (*H. incisor* C. & V.), *Pomotis heros* B. & G.), *Labrus palladus* Mitchill, is probably and *L. appendix* M. is certainly a syn. of *Lepomis auritus* (L.). *Pomotis holbroocki* Cuv. & Val. is probably a syn. of *Eupomotis gibbosus* (L.) = (*Pomotis notatus* Ag.). *Eupomotis microlophus* (Günther) is the oldest available name for a southern *Eupomotis.*

**Jensen A. J. C.** - On a Great Change in the Size–Composition of the North Sea Plaice during the Latest Years [*De magna quadam mutatione quoad magnitudinem speciei « Pleuronectes platessa » proximos annos*]. 2 tabl., 1 fig., Rapp. Pr-Verb. Cons. Expl. Mer., XCIV, 3ème partie Appendices (1934-1935), 7-8. Copenhague (1935). **b - 1152**

From the fishing experiments carried out by the S/S « Dana » it has been shown that the change in the composition of the stock is due to the fluctuations in the strength of the year-classes. This change in the plaice stock has given rise to a shifting of the fishing places of the Danish fishery.

**Johansen B. G.** - Morphologische und biologische Besonderheiten der Sibirischen Neunaugen [*Lampetrae (Cyclostomata) siberianae. Peculiaritates morphologicae et zoologicae*]. (In Russ., Dtsch. Rés.). 9 Abb., 8 Tab., 2 Taf., Zool. Zhurn., XIV, 2 359-370; 3, 501-522. Moskva (1935). **b - 1153**

Vorliegende Arbeit ist eine Zusammenfassung der Untersuchungen über die Neunaugensammlung des Zoologischen Museums zu Tomsk und der Literatur über die Neunaugen der nördlichen Halbkugel. Nach einer kurzen Beschreibung der 11 eurasischen Neunaugen bespricht Vf. eingehender die 2 in Sibirien vertretenen Formen: die grosse durchgehende (*Lampetra japonica septentrionalis*), und die kleine Standform, *L. japonica kessleri*, mit besonderer Berücksichtigung ihrer morphologischen und biologischen Merkmale. Er schildert ausserdem das Verbreitungsgebiet, die Wanderungen und Larvenform beider Fische und betont die Notwendigkeit weiterer Untersuchungen zur Feststellung aller objektiven morpologischen Merkmale der sibirischen Neunaugen.

**Kaganovskij A. G.** - Matériaux pour la connaissance de la sardine de l'Extrême-Orient (*Sardinops melanosticta*, Temm. & Schleg.) [*Res collectae ad speciem cognoscendam « Sardinops melanosticta »*]. (En russe). 1 tabl., Rybn. Choz. Daljn. Vostoka, XIII, 1, 35-38. Khabarovsk (1935). **b - 1154**

Informations concernant les rendements de la pêche de *S. melanosticta*, sa propagation, ses migrations, l'influence du plankton et de la température sur ses déplacements, le cycle évolutif et le pourcentage des différents groupes d'âge dans les captures.

**Kaganovskaja S. M.** - Caractéristique morphologique de la sardine (*Sardinops melanosticta*, Temm. & Schleg.) [*Peculiaritas morphologica speciei «Sardinops melanosticta »*]. (En russe). 2 tabl. Rybn. Choz. Daljn. Vostoka, XIII, 1, 38-40. Khabarovsk (1935). **b - 1155**

Résultats de l'analyse des matériaux recueillis sur *S. melanosticta* dans le but d'établir quelles sont les caractéristiques morphologiques les plus variables de ce poisson afin de pouvoir en distinguer les races particulières éventuelles, avec référence spéciale à ce que l'on pourrait appeler les modifications morphologiques saisonnières.

**Kahl W.** - Einige Beobachtugen über den Stint [*Observationes de specie «Osmerus eperlanus»*]. 1 Fig., 5 Tab., Fischmarkt, III, 6, 147-151. Cuxhaven (1935). **b - 1156**

Kurze Zusammenstellung einer Reihe von Beobachtungen über den Stint, welche im Zusammenhang mit anderen Untersuchungen während des Winters 1934/35 von der Fischereibiologischen Abteilung des Zoologischen Staatsinstituts im Hafengebiet der Elbe gemacht worden sind, mit besonderer Berücksichtigung der Nahrungsverhältnisse, des Alters, des Gewichtes, des Wachstums und der Geschlechtsverhältnisse dieses Fisches, an Hand von drei umfangreichen Proben von Angelstint von insgesamt 270 Stück.

**Katayama Masao** - Biometric Study of Dog Salmon, *Oncorhynchus Keta* (Walbaum). [*De biometria speciei « Oncorhynchus keta »*. (In Jap., Engl. Rés.). 5 tabl., Bull. Jap. Soc. Scient. Fish., IV, 3, 171-173. Tokyo (1935). **b - 1157**

Sexual dimorphism. Races.

**Kimura Kinosuke** - Sardines from the Waters in the Neighbourhood of Tokyo(1). Fishing Season, Size and Form of Sardines in the North-eastern Parts of the Bays of Sagami and Suruga [*Sardinae in aquis apud* Tokyo. *Tempus piscandi, magnitudo et forma sardinarum in regione nord-orientali bajae* Sagami *et* Suruga]. (In Jap., Engl., Rés.). 12 figs., 4 tabl., Bull. Jap. Soc. Scient. Fish. III, 6, 312-326. Tokyo (1935). **b - 1158**

Fishing season, averaged body-length of fish groups, averaged fatness and fatness-index of groups are studied for the following species: *Sardinia melanosticta*, *Engraulis japonicus*, *Etrumeus micropus*, *Spratelloides japonicus.*

**King G. W. & La Monte Fr.** - The World of Fishes. Guide to the Fish Collections of the American Museum of Natural History [*Collectio piscium Musei Americani Historiae Naturalis*]. 18 figs., Guide Leaflet Ser., 81, 7-90. New York (1934). **b - 1159**

Part. I: Recent fishes: Section I: Archaic fishes: sharks, rays, chimaeroids, lampreys and hags, lungfishes. Section II: The biology of fish: reproduction, parental care, locomotion and body form. Section III: Deep sea and reef fishes. Section IV: Gamefishes. Section V: The higher fishes: ganoids, teleosts. Part II: Fossil fishes. Index.

**Kirpitschnikov V. S.** - Biologisch-systematische Studien des Stints des Weissen Meeres, der Tscheskaja Bucht und des Flusses Petschora [*Studia biologico-systematica specierum « Osmerus eperlanus » et « Osmerus dentex » ad Mare Album, bajam* Tscheskaja *et flumen* Petschora *pertinentium*]. (In Russ., Dtsch. Rés.). 61 Taf., Works Labor. Ichthyol., Trans. USSR Inst. Fish. & Oceanogr., II, 101-194. Moscow (1935). **b - 1160**

Beschreibung der Arbeitsmethode zum Studium des vorhandenen Materials. Veränderungen der erforschten Altersindexe Wachstumstempo, Studium der einzelnen biologischen Merkmale und des allgemeinen Entwicklungsganges. Biologie. Schlussfolgerungen in Bezug auf die Biologie und Systematik der nördlichen Formen von *Osmerus* in den nordrussischen Gewässern.

**La Cascia P.** - Sul *Cetorhinus maximus* Gunn. (*Selache maxima*) nel Mediterraneo. Catture nel mare di Palermo [*« Cetorhinus maximus » in mari Mediterraneo. Agitur de capturis mari panormitano*]. 3 tav., 6 tab., 60 fig., Bull. Ist. Zool. Univ. Palermo, II, 8/11, 137-176. Palermo (1934). **b - 1161**

Catturati nel 1928–31 per la prima volta nel mare di Palermo quattro esemplari di *Cetorhinus maximus*, l'A. ne dà l'esatta descrizione morfologica, e i dati somatometrici più importanti al fine di distinguere l'identità delle forme *rostrata* e *maxima*. Differenze con gli esemplari atlantici, ipotesi di una migrazione dei *Cetorhinus* dell'Atlantico settentrionale nel Mediterraneo.

**Le Gall J.** - Le Hareng *Clupea harengus* Linné. I. Les populations de l'Atlantique Nord-Est [*« Clupea harengus ». Populatio Oceani Atlantici nord-orientalis*]. 98 fig., Ann. Inst. Océanogr. XV, 1, 1-215. Paris (1935). **b - 1162**

1) Le Hareng (*Clupea harengus* Linné): place dans la classification; caractères spécifiques; distribution. 2) La méthode de travail suivie. Étude particulière d'une population: les harengs de l'Atlantique Nord-Est; choix des caractères à étudier. 3) Les populations de l'Atlantique Nord–Est: les Harengs de la bordure du Plateau Continental Atlantique; les Harengs de printemps Atlanto-Scandinaves; les Harengs Hiberno-Calédoniens; les Harengs Atlantiques; les Harengs de la Manche; les Harengs d'automne de la Mer du Nord; les Harengs des Détroits Danois; les Harengs de la Baltique; les Harengs dans des mers étroites; les populations des Harengs de l'Atlantique Nord-Est. 4) Les conditions du milieu marin et la répartition des différentes populations de Harengs de l'Atlantique Nord-Est: les différents domaines de l'Atlantique Nord; influence de la température et de la salinité sur les variations de quelques caractères fluctuants; influence des variations des conditions du milieu sur le déplacement des bancs de Harengs; la périodicité des transgressions atlantiques et les fluctuations de la pêche.

**Le Gall J.** - Statistiques biologiques et considérations sur la population de Harengs de la Manche orientale et du Sud de la Mer du Nord. (Matériel prélevé en 1934) [*Statistica biologica considerationesque circa populationem aringorum Freti Britannici orientalis Marisque nordici*]. 2 fig., Rev. Trav. Off. Pêches Marit., VIII, 1, 43-53. Paris (1935). **b - 1163**

La population de Harengs concentrée sur les frayères du Sud de la Mer du Nord et de la Manche orientale, pendant la saison d'hiver 1933-1934, peut se caractériser par l'abondance de Harengs de 5 ans (4 anneaux d'hiver), classe 1929. Les jeunes Harengs de 3 ans (2 anneaux d'hiver, classe 1931) apparaissant pour la première fois dans les concentrations de ponte, se sont également montrés relativement nombreux (13,5 p. 100).

L'étude de la moyenne vertébrale des Harengs étudiés a montré qu'une forte pénétration en Manche orientale des Harengs de la Mer du Nord s'est faite pendant le mois de novembre et de décembre. Au contraire, la pénétration de Harengs du type « Manche » a été limitée et ne s'est produite qu'à la fin de saison, après le ponte sur les frayères de la Manche orientale et au sud de la Somme.

**Leidenfrost G.** - A fiumei cápa [*Squali*]. (En hongrois). 4 ill., A Tenger, XXV, 1/4, 8-18. Budapest (1935). **b - 1164**

**Lin S. Y.** - A new Genus and three new Species of marine Fish from Hainan Island [*Genus quiddam novum novaeque tres species piscium marinorum ab insula* Hainan *provenientium*]. 3 fig., Lingn. Scient. Journ., XII, 1, 93-96. Canton (1933). **b - 1165**

*Sinomyrus* n. gen. with *S. angustus* n. sp. *Parapercis hainanensis* n. sp. and *Sillago megacephalus* n. sp.

**Lin S. Y.** - A Study of Foochow Fishes [*Studium piscium ad* Foochow *pertinentium*]. 3 figs., Lingn. Scient. Journ., XIII, 4, 671-691. Canton (1934). **b - 1166**

List and partly descriptions of 70 spp. (mostly marine) representing 61 genera in 40 families, including *Abudefduf chengi* n. sp., and *Anema elongatum*, new record for China Sea.

**Lin S. Y.** - Notes on Some Important Sciaenid Fishes of China [*Sciaenidae Sinenses. Notae*]. (Engl. & Chinese). 12 fig., Bull. Chekiang Prov. Fish. Station, I, 1, 1-30. Tinghai, Chekiang (1935). **b - 1167**

Sciaenids constitute one of the most important groups of the Chinese food Fishes. Tentative analytical key to 6 genera. Description of 14 species, one of which is new, *Nivea flavolabiata* Lin.

**Lindauer V. W.** - Presence of Roes in New Zealand Marlin Swordfishes [*Maturitas sexualis in speciebus « Makaira (Tetrapterus) mitsukurii » et « M. mazara » in Nova Zelandia*]. Nature, CXXXVI, 3446, 797–798. London (1935). **b - 1168**

Short information on the fund of ovaries containing roe in the Striped Marlin and the Black Marlin during March and April 1935 in the Bay of Islands, New Zealand.

**Lindberg G.** - Description of a New Genus and Species *Gobiodonella macrops* (*Gobiidae, Pisces*) from Misaki, Japan [*« Gobiodonella macrops » (Gobiidae, Pisces) ad* Misaki *pertinentes. Novi generis et speciei descriptio*]. 2 figs., 1 table. C. R. Acad. Sc. U. R. S. S., II, 7, 436-440. Léningrad (1934). **b - 1169**

Description and diagnosis of *Gobiodonella* n. gen., and of *G. macrops* n. sp., on hand of two specimens collected by W. Rozkosvski at Misaki (Japan) on August 23st, 1917.

**Lundbeck J.** - Age and Development of Sea Fish [*Quaestio de aetate et progressione piscium marinorum*]. Fish. News, 22. Aberdeen (1935).
**b - 1170**

**Martin C. & Montalban H. R.** - Philippine *Sillaginidae* [*Sillaginidae ad Philippinas pertinentes*]. 1 pl., Philipp. Journ. Sc., LV, 3, 221-229. Manila (1934).
**b - 1171**

In the present paper is given a review of Philippine Fishes belonging to the family *Sillaginidae*. Three species are described, one of which is believed to be new to science: *Sillago argentifasciata* sp. nov.

**Martin C. & Montalban H. R.** - Philippine *Parapercidae* [« *Parapercidae* » *ad Philippinas pertinentes*]. 3 pl. o. t., Philipp. Journ. Sc., LVI, 2, 215-227. Manila (1935).
**b - 1172**

Review of the species of *Parapercidae*, inhabiting Philippine waters. Keys and synonyms, diagnosis. Two new species: *Parapercis dorsonebulosa*, n. sp. and *P. montillai* n. sp.

**Matsubara Kiyomatsu** - Studies on the Scorpaenoid Fishes of Japan. I. Descriptions of One New Genus and Five New Species [*Scorpaenidae ad Japoniam pertinentes. Novi generis, descriptio quinqueque novarum specierum*]. 4 figs., Journ. Imp. Fish. Inst., XXX, 3, 199-210. Tokyo (1934).
**b - 1173**

External and internal characters of the new genus *Hozukius*, different from those of the genus *Helicolenus*, and the following new species: *Sebastodes* (*Primospina*) *wakiyai*, *S.* (*Zalopyr*) *melanostictus*, *S.* (*Z.*) *kawaradae*, *Sebastichthys* (*Pteropodus*) *latus*, *S* (*P.*) *longispinis* are described and their measurements given.

**Matsubara Kiyomatsu** - Studies on the Scorpaenoid Fishes of Japan. II. Statistical Observations on *Sebastodes inermis* (C. et V.) [*Scorpaenidae ad Japoniam pertinentes. II. Observationes statisticae speciei* « *Sebastodes inermis* »]. 2 graph. figs., 9 tabl., Bull. Jap. Soc. Scient. Fish., IV, 4, 217-223 (Contr. Zool. Labor. Imp. Fish. Inst. No. 39). Tokyo (1935).
**b - 1174**

Discussion on the division of *Sebastodes inermis* into four species. Measurements of all the body parts utilized for taxonomy expressed in graphs and tables for nine different localities.

**Mayorowa A. A.** - Position taxonomique de l'anchois, pêché auprès des côtes de la Géorgie [« *Engraulis encrasicholus* » *ad litora Georgiana captus. Quaestio de eius positione taxonomica*]. (En russe, rés. franç. & géorg.). 2 tabl., Trav. Stat. Piscic. & Biol. Géorgie, I, 1, 5-20. Batoum-Tiflis (1934).
**b - 1175**

Résultats de recherches sur l'anchois pêché auprès des côtes de la Géorgie et celui capturé près de Sébastopole, qui permettent à l'A. d'affirmer, sur la base de diagnoses respectives, qu'il existe dans la partie orientale et occidentale de la Mer Noire deux formes distinctes d'*Engraulis encrasicholus ponticus* que l'A. désigne sous les noms de *E. encrasicholus ponticus occidentalis natio nova* et *E. encras. ponticus orientalis natio nova.* Dans le texte russe de l'article les deux diagnoses sont aussi données en latin.

**Mayorowa A. A.** - Une nouvelle espèce de hareng habitant le lac Palaeostome [*Species nova ex Aringis in lacu* Palaeostome]. (En russe, rés., franç. & géorg.). 6 tabl., 1 pl., Trav. Stat. Piscic. & Biol. Géorgie, I, 1, 21-30. Batoum-Tiflis (1934).
**b - 1176**

Résultats d'une analyse biométrique du hareng du lac Palaeostome et de l'embouchure du fleuve Rion, et sa comparaison avec les harengs de la Mer Noire et de la Mer d'Azov, *Caspialosa nordmanni* Antipa et *C. tanaica* Grimm., dont l'A. conclut qu'il existe une différence tellement considérable entre ces trois formes qu'il est autorisé à considérer le hareng du lac Palaeostome comme une forme à part, à laquelle il a donné le nom de *Caspialosa palaeostomica* sp. n.

**Menshikov M. I.** - Contribution to the Taxonomy and Biology of *Stenodus leucichthys nelma* of the Lower Irtysh [*Contributio in taxonomiam et biologiam speciei* « *Stenodus leucichthys nelma* » *in* Irtysh]. (In Russ., Engl. Rés.), 9 tabl., 1 diagr., Bull. Inst. Rech. Biol. Perm, X, 1/2. Perm (1935).
**b - 1177**

Biometrical analysis, methods of investigation; taxonomic signs and their alterations depending on age; migrations; sexual maturity, growth rate; parasites.

**Meyer P. F.** - Ueber das Vorkommen von *Labrus bergylta* Ascanius (gefleckter Lippfisch) in der Ost-und Beltsee [« *Labrus bergylta* » *in mari Baltico marique* Belt]. Zool. Anz., CVIII, 270-271. Leipzig (1934).
**b - 1178**

**Molander A. R.** - Ueber das Vorkommen der jüngsten Altersgruppen der Scholle an der schwedischen West-und Südküste [*Species* « *Pleuronectes platessa* ». *Agitur de praesentia cumulorum juniorum in litoribus occid. et merid. Suetiae*]. 9 graph. Fig., 4 Tab., Rapp. Pr-Verb. Cons. Expl. Mer, XCIV, 3ème partie. Appendices (1934-1935), 31-41. Copenhague (1935).
**b - 1179**

Die von 1929 an jährlich unternommenen Untersuchungen, hier graphisch gezeigt, geben vorhanden, dass die schwedische Westküste ein sehr wichtiger Grund für junge Schollen mit sehr verschiedener Ausbreitung and Stärke ist. Wie die meisten Untersuchungen beweisen, lebt die jüngste Altersgruppe der Südküste gewöhnlich im flachsten Wasser. Ein Addendum von J. P. Jacobsen über den Wasseraustausch zwischen der Ostsee und dem Kattegat ist am Ende dieser Arbeit hinzugefügt.

**Molander A. R.** - Further Data concerning the Witch (*Pleuronectes cynoglossus* L.) [*Data circa speciem* « *Pleuronectes cynoglossus* »]. 22 tabl., 13 fig., Sv. Hydrogr.-Biol. Komm. Skr., Ny ser. Biol., I, 6, 25-31. Stockholm (1935).
**b - 1180**

The Witch fishery in Bohuslän. The distribution of witch in the North Sea, the Skagerrak and the Kattegat. The presence of witch and the hydrographical conditions. The distribution of males and females. Growth, age-groups, Are there different races of witch ?

**Montilla J. R.** - A Rewiew of Philippine *Menidae* and *Gerridae* [« *Menidae* » *et* « *Gerridae* » *ad Philippinas insulas pertinentes*]. 3 Pls., Philipp. Journ. of Sc., LVIII, 2, 281-295. Manila (1935).
**b - 1181**

Description, synonyms and habitats of: *Mene maculata*, *Gerres abbreviatus*, *G. filamentosus*, *G. kapas*, *G. oyena*, *G. oblongus*, *G. baconensis*, *G. macrosoma*, with key to species of *Gerres*.

**Morris R. T.** - Note on Lampreys [*Notae de Lampetris*]. Canad. Field. Natural., 49, March, 60. Ottawa (1935).
**b - 1182**

**Mothervell J. A.** - Condition of British Columbia Salmon-Spawning Grounds [*Condicio locorum reproductionis pro salmonibus in Columbia Britannica*]. 1 table, Rep. Comm. Fish. Brit. Columb., 1934, App., 59-67. Victoria, B. C. (1935). **b - 1183**

Information on seeding and run in 10 principal and 13 sub-districts. Statistical statements of salmon-eggs collected in British Columbia and placed in the hatcheries.

**Murat M.** - Sur la Capture d'une Coryphène dans la Baie de Castiglione [« *Coryphaena hippurus* ». *Quaestio de captura in baja* Castiglione]. Stat. Aquicult. et Pêche Castiglione (1933), 2, 61-71. Alger (1935). **b - 1184**

Histoire, captures, description de la Coryphène.

**Murat M.** - Contribution à l'étude de la Sardine (*Sardina pilchardus* Walb.) de la Baie de Castiglione [*Contributio in studendam speciem* « *Sardinia pilchardus* » *in baja* Castiglione]. Stat, Aquicult. et Pêche Castiglione (1933), 2, 95-196. Alger (1935). **b - 1185**

Importance et difficulté de l'examen des écailles des Clupes; critérium pour distinguer un anneau vrai d'un faux; observations à la lumière polarisée; considérations par suite de la formation discontinue des écailles sur l'allure de la croissance pendant une année; méthodes pour la détermination de la courbe de croissance; longévité de la Sardine algérienne. Quelques données biométriques sur le nombre des vertèbres et les proportions du corps; valeur de certains rapports en vue de la distinction des races· Variation du poids des sardines. Sexualité.

**Nakamura H.** - On a Rare Shark from Formosan Waters [*De specie* « *Galeocerdo tigrinus* » *in aquis apud Formosam*]. (In Jap.). 1 pl., Trans. Nat. Hist. Soc. Formosa, XXIV, 135, 486-488. Taihoku (1934). **b - 1186**

Description and diagnosis of *Galeocerdo tigrinus* Müller et Henle from Formosan waters.

**Nall G. H.** - The Sea Trout of Mull [*Trutta marinu regionis* Mull]. 34 tabl., 4 pl., Fish. Bd Scotl. Salmon Fish., I,3-44. Edinburgh (1935). **b - 1187**

The paper is based on scales read and measured by the author. Introduction and survey of results: 1. The Island of Mull; 2. List of centres in alphabetical order; number of fish in each sample; 3. Survey of results: *a*) parr life; *b*) sea life; *c*) age at maturity; 4. heaviest and oldest sea-trout. II. Samples from the different centres.

**Nall G. H.** - Sea-Trout of the Montrose District. Part II. Growth on the Scales of Recaptured Fish [*Trutta marina in districtu* Montrose. *II. Accretio squamarum piscis denuo capti*]. 15 pls., 4 tables. Fish. Bd Scotl., Salmon Fish., II, 3–22. Edinburgh (1935). **b - 1188**

This second paper on the Sea-trout of the Montrose Area deals with recaptures of marked fish and consists of the following paragraphs: I. The principles on which the reading and measurement of scales are based. II. Illustrations of these principles from recaptured scales. III. Difficulties in the application of these principles. IV. Misleading scales. V. A fuller discussion of checks. VI. Measurements of growth at certain seasons. VII. No indication that marketing affects subsequent growth. Bibl.

**Netchaeff A.** - The Black Sea « *Sarda sarda* », Bloch [*Species* « *Sarda sarda* » *Ponti Euxini*]. (In Bulg., Engl. Rés.). Trav. Stat. Ichthyol. à Sozopol-Bulgarie, II, 3–13. Burgas (1934). **b - 1189**

**Netchaeff A.** - Some Observations over the little *Sargus annularis* L. [*Observationes de parva specie* « *Sargus annularis* »]. (In Bulg., Engl. Rés.). Trav. Stat. Ichthyol. à Sozopol-Bulgarie, II, 27-30. Burgas (1934). **b - 1190**

**Nichols J. T.** - Variation in Pacific *Trachurops crumenophthalmus* [*Variationes speciei* « *Trachurops crumenophthalmus* » *Oceani Pacifici*]. 1 fig., Amer. Mus. Novit., 815, 6 pp. New York (1935). **b - 1191**

Description and comparison of 5 full-grown specimens of similar size from different parts of the eastern Pacific. The most aberrant form is here described as a new subspecies, *T. crumenophthalmus crockeri.*

**Nichols J. T. & Breder C. M.** - New Pacific Flying-fishes Collected by Templeton Crocker [*De novo pisce volante apud* Templeton Crocker *collecto*]. 3 figs., Amer. Mus. Novit., 821, 4 pp. New York (1935). **b - 1192**

Series collected through the eastern Pacific; three species of the genus *Cypselurus* are here described as new: *C. pitcairnensis* n. sp., *C. angusticeps* n. sp., *C. ventralis* n. sp.

**Nichols J. T. & La Monte F. R.** - The Tahitian Black Marlin, or Silver Marlin Swordfish [*Piscis tahitiensis* « *Makaira nigricans tahitiensis* »]. 1 fig., Amer. Mus. Novit., 807, 1. New York (1935). **b - 1193**

Description of *Makaira nigricans tahitiensis* n. subsp.

**Nichols J. T. & Maxwell A.** - A probably undescribed Codfish from Arctic America [*Species ex* « *Gadus* » *ab America arctica proveniens, nondum probabiliter descripta*]. Copeia, I, 26. New York (1933). **b - 1194**

*Boreogadus pearyi* n. sp. Greenland.

**Nikitina V. R.** - Bibliographie Ichtyologique de la Mer Noire et de la Mer d'Azov [*Bibliographia ichthyologica Ponti Euxini et Paludis Moeotidis*]. (Introd. en russe). Trav. Stat. Piscic. & Biol. Géorgie, I, 1, 237-280. Batoum-Tiflis (1934). **b - 1195**

Aperçu général et liste bibliographique de 693 travaux publiés en différentes langues et concernant l'ichtyologie de la Mer Noire et de la Mer d'Azov. Les travaux sont divisés en 7 groupes ainsi qu'il suit: 1. Systématique et zoogéographie; 2. Ecologie; 3. Pêches et pisciculture; 4. Morphologie; 5. Maladies et parasites de poissons; 6. Varia; 7. Mammifères marins de la Mer Noire et de la Mer d'Azov.

**Ninni E.** - *I Callionymus* dei mari d'Europa, con un'aggiunta di quelli esotici esistenti nei Musei d'Italia e una nuova specie di *Callionymus* del Mar Rosso [*De* « *Callionymus* » *ad maria europaea pertinentibus. Notae adiunguntur de exemplaribus esoticis in Museis Italicis atque etiam descriptio novae speciei ex* « *Callionymus* » *ad Mare Rubrum pertinentis*]. 13 tav., Notas y Résum., Inst. Españ. Oceanogr., ser. II, 85, 1-59. Madrid (1934). **b - 1196**

L'A. prima di tutto passa in rassegna le descrizioni delle diverse specie di *C.* fatte da autori precedenti, poi le divide basandosi sulla forma e sul numero di aculei di cui sono provviste le spine preopercolari e ne dà una descrizione dettagliata. Tratta infine dei *Callionymus* esotici esistenti nei Musei d'Italia e descrive dettagliatamente la nuova specie *C. erythraeus* n. sp.

**Ninni E.** - Alcune osservazioni d'indole biologica sul genere « *Salarias* » (Cuv.) [*Observationes quaedam biologicae de genere « Salarias »*]. 1 fig., Natura (Riv. Sc. Nat.), XXVI, 3, 100-103. Milano (1935). **b - 1197**

Brevi osservazioni sulle abitudini di vita di due specie del genere *Salarias*, raccolte dall'A. nel Mar Rosso e nell'Oceano Indiano, e cioè: il *Salarias unicolor*, Rupp. ed il *Salarias tridactylus*, Bl. Schn.

**Otterstrøm C. V.** - Laks og Ørred. En Vejledning til Bestemmelse [« *Salmo salar* » *et* « *Salmo trutta* ». *Auxilium pro determinatione*]. 23 fig., 10 pp., Ferskvandsfiskeribladet, XXXIII, 4. København (1935). **b - 1198**

Description of eggs and fry. Keys for the determination of the two species in different stages, also on hand of figures.

**Paspaleff G. W.** - Beitrag zur Morphologie und Biologie von *Bothus maeoticus* Pall. [*Contributio in morphologiam et biologiam speciei « Bothus maeoticus »*]. 10 Tab., 4 Abb., Arb. Biol. Meeresstation a. Schwarzen Meer in Varna, Bulg., 3, 17-53. Sofia (1934). **b - 1199**

Vorhergehende Beschreibungen. Material. Morphologie. Vorkommen. Das Verhalten der *B. m.* Pall. bei starken Aenderungen des Salzgehaltes und der Wassertemperatur. Laichzeit und biologische Minimalmasse. Das zahlenmässige Verhältnis der Geschlechter. Eier. Laichplätze. Ernährung: Altersbestimmung. Das Wachstum von *B. m.* Pall. Das Verhältnis zwischen den Gewichts-und Grössenabmessungen. Wirtschaftliche Bedeutung.

**Pellegrin J.** - Un poisson rare pour la faune française le Cubiceps grêle [*Piscis rarus in fauna gallica, « Cubiceps gracilis »*]. Ass. Franc. Av. Sc., C. R., 57 Sess., 496-498. Chambéry (1933). **b - 1200**

*Cubiceps gracilis* Lowe, rejeté sur la plage de Guèthary.

**Pellegrin J.** - Poisson abyssal du genre *Melamphaes* pêché en surface, nouveau pour les côtes françaises [*De pisce quodam abyssali ad genus « Melamphaes » pertinente, novo in litoribus gallicis, ad superficiem capto*]. Bull. Soc. Zool. France, LIX, 266-267. Paris (1934). **b - 1201**

Amplitude des migrations verticales qui permettent à quelques espèces abyssales de se rapprocher de la surface.

**Pellegrin J.** - Poisson marin nouveau de la réunion de la famille des Serranidés [*Agitur de nova specie « Holantias furcatus »*]. Bull. Mus. Nat. Hist. Natur., VII, 1, 51-53. Paris (1935). **b - 1202**

*Holanthias furcatus* nov. sp.

**Phillips J. B.** - A large Northern Halibut in Monterey [*Magnus « Hippoglossus hippoglossus » in baja* Monterey *captus*]. Calif. Fish a. Game, XXI, 3, 262. Sacramento (1935). **b - 1203**

This specimen weighing 89 pounds and measuring 5 feet 3 inches from tip of snout to tip of tail is the largest specimen of northern halibut taken so far south.

**Podenzana G.** - La cattura di una *Selache maxima*, Gunn. in Bocca di Magra (Golfo della Spezia) [« *Selache maxima* » *apud* Bocca di Magra *capta*]. 1 fig., Mem., Acc. Lunig. di Sc., Capellini, XV, 1, 50-52. La Spezia (1935). **b - 1204**

**Popow A. M.** - Beiträge zur Ichthyofauna des Japanischen Meeres [*Contributio in ichthyofaunam maris Japonici*]. (In Russ., Dtsch. Rés.). 1 Taf., Expl. Mers U. R. S. S, 19, 139-155. Léningrad (1933). **b - 1205**

Bearbeitung des während verschiedenen Expeditionen in der Gegend zwischen der Bucht Peter dem Grossen und dem Amur-Liman im Japanischen Meere gesammelten Materials, welches insgesamt 80-31 Familien angehörenden Arten enthält. Von diesen 80 Arten sind die folgenden 3 neu: *Careproctus batialis* n. sp., *Alectrias tarasovi* n. sp. und *Lycozoarces regani* n. sp.

**Probatov A. N.** - Contribution to the Study of Kama Sterlet [*Contributio in studendam speciem « Acipenser ruthenus » ad* Kama *pertinentem*]. (In Russ., Engl. Rés.). 5 tabl., Bull. Inst. Rech. Biol. Perm, X, 1/2, 29-41. Perm (1935). **b - 1206**

Fishery and commercial importance. Sexual maturity, length, weight, migration, food, parasites.

**Raitt D. S.** - The Occurrence of four Species of Sand Eels, of economic Importance in Scottish Waters, one of which is new to Science [« *Ammodytes lanceolatus* ». *Species quattuor magni momenti oeconomici in Scotia*]. Scott. Natur., 213, 61-62. Edinburgh (1935). **b - 1207**

**Roberts W. A.** - The Shad [*Alosa sapidissima*]. Fish & Oyst. Rep., XVI, 8, 5 & 8. Tampa, Fla. (1935). **b - 1208**

Brief notes on the life history, distribution, migrations, stock and commercial importance of *A. sapidissima*.

**Rollefsen G.** - Observations on the Propagation of the Cod and the Plaice [*De propagatione specierum « Gadus morrhua » et « Pleuronectes platessa »*]. 1 fig., Kgl. Norsk. Vidensk. Selsk. Forh., 1934, VII, 11, 33-34. Trondheim (1935). **b - 1209**

Observations undertaken at the biological Station of Trondheim in spring 1934 in order to study the question as to the predilection of the cod of the transition layers between the warm Atlantic water in the deep and the cold surface layer for spawning.

**Roxas H. A.** - A Review of Philippine Isospondylous Fishes [*De piscibus Isospondylibus ad insulas Philippinas pertinentibus*]. 3 pl., Philipp. Journ. Sc., LV, 3, 231-295. Manila (1934). **b - 1210**

An attempt is made here to present a systematic record of the material contained in the collection of the Fish and Game Administration of Manila, so that the confusion arising from wrong identification and from non-uniformity of taxonomic treatment may be partially if not completely eliminated.

**Roule L.** - (Transl. by Elphinstone). Fishes. Their Ways of Life [*Piscium modus vivendi*]. 52 figs., viii + 312 pp. Georg Routledge & Sons, Ltd. London (1935). **b - 1211**

**Roule L.** - Nouvelles observations sur quelques espèces de Poissons abyssaux provenant de Madère [*Observationes novae de piscibus abyssalibus a* Madera *provenientibus*]. Bull. Inst. Océanogr., 674, 1-6. Monaco (1935). **b - 1212**

Détermination de huit espèces, dont cinq ont été prises par l'engin de pêche profonde dit « Camera de lobos » et trois ont été retirées, avant digestion, de l'estomac de poissons qui les avaient ingurgitées. Diagnose du nouveau genre *Candonia*.

**Rounsefell G. A. & Dahlgren H. E.** - Races of Herring, *Clupea pallasii,* in Southeastern Alaska [*Species « Clupea pallasii » in Alaska sudorientali*]. 9 tabl., 10 fig., Bull. Bur. Fish., XLVIII, 17, 119-141. Washington (1935). **b - 1213**

Necessity of studying the individuality and distri bution of herring populations in order to unterstand depletion and variations of the stock. Spawning and feeding localities. Analysis of vertebral counts. Analysis of growth rates, year classes. Tagging.

**Runnstrøm S.** - The Relationship between the Spring-Spawning Herring Population of the Northern North Sea and the Norwegian West Coast [*De correlationibus inter Aringos qui vere reproductionem faciunt in Mari Nordico septemptr. et litora occid. Norvegica*]. 1 map. Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 3ème partie, Appendices (1934-1935), 3-6. Copenhague (1935). **b - 1214**

The spawning migrations to the Norwegian coast during recent years, of which the A. here gives an account, seem to have a certain connection with the current conditions in the Northern North Sea. A clear westerly displacement of the spawning shoals has been noticed in certain years, further investigations as to the distribution of the pelagic herring larvae from the hatching centres will, however, be necessary for the elucidation of the interchange between different spawning groups.

**Salnikov N. I. & Maljatskij S. M.** - Sur la systématique du grand esturgeon (*Huso huso* L.), du bassin de la Mer Noire et de la Mer d'Azov [*Quaestio de systematica speciei « Huso huso » ad Pontum Euxinum Paludemque Moeoticam pertinentis*]. (En russe, rés. franç. et géorg.). 3 tabl., 2 pl., 1 carte. Trav. Stat. Piscic. & Biol. Géorgie, I, 1, 31-50. Batoum-Tiflis (1934). **b - 1215**

Compte rendu des résultats d'une étude biométrique sur le grand esturgeon de la Mer Noire recueilli dans les environs de Sébastopole et de Batoum et sur celui de la Mer d'Azov, recueilli dans le voisinage de la côte Nord de la péninsule de Kertsch. Sur la base de ce matériel les A. A. divisent le grand esturgeon *Huso huso* L. du bassin de ces deux mers en deux sous-espèces, et précisément: *Huso huso maeoticus* (Mer d'Azov) et *H. huso ponticus* (Mer Noire); à son tour ils distinguent dans la sousespèce pontine deux *natio*: a) *H. huso ponticus orientalis* et b) *H. huso ponticus occidentalis*. Dans le texte russe la diagnose des formes considérées est aussi donnée en latin. Une description morphologique, écologique et biologique des poissons est aussi contenue dans l'ouvrage.

**Santucci R.** - La presenza nelle acque del Mar Rosso del « *Rhineodon typus* » A. Smith. Squalo gigantesco [*Species « Rhineodon typus » squalus permagnus in Mari Rubro*]. 7 fig., Boll. Mus. e Lab. di Zool. e Anat. Comp. R. Univ. di Genova, XIV, 76, 3-14. Genova (1934). **b - 1216**

L'A. segnala per la prima volta la cattura nelle acque del Mar Rosso del *Rhineodon typus*, squalo gigantesco dell'Oceano Indiano e Pacifico, dandone la descrizione con particolari ancora sconosciuti o poco noti.

**Sborowskaja M. B.** - Zur Kenntnis des Fanges und der Biologie des Onega-Lachses (*Salmo salar relictas* Malmgreen) [*Contributio in cognoscendas piscationem et biologiam salmonis ad* Onega *pertinentis*]. Tab., 2 Taf. a. T., Rep. Karelia Scient. Res. Fish. Stat., I, 257-280. Leningrad (1935). **b - 1217**

Ergebnisse von der Bearbeitung der gesammelten Materialien über den Lachs des Onega-Sees, welcher eine Form des atlantischen Lachses darstellt, aber nicht den Zug in die See durchführt.

**Schaposchnikowa G. Kh.** - Biologie des jungen Lachses und des Tinda-Jakobslachses im Wyg-Flusse [*De biologia juvenis salmonis atque etiam exemplarium « Grilse » nomine in flumine* Wyg]. (In Russ., Dtsch. Rés.). Tab., 2 Taf. a. T., Rep. Karelia Scient. Res. Fish. Stat., I, 227-240. Leningrad (1935). **b - 1218**

Ergebnisse einer Erforschung der Biologie der jungen Lachse und der sogenannten « Tynda », welche eine örtliche Benennung der den Fluss zwecks Laichen zum ersten Male aus dem Meere hinaufsteigenden junger Lachse ist, mit besonderer Berücksichtigung des Charakters des Anwachsens der Skleriten, des Wachstumstempos der jungen Lachse, ihrer Ernährung und ihrer Laichgewohnheiten.

**Schmidt J.** - Danish Eel Investigations during 25 Years 1905-1930 [*Investigationes a Danis peractae in Anguillas per 25 annos (1905-1930)*]. 24 figs., Carlsberg Found. oceanogr. Exped. round the world 1928-30, and previous Danish oceanogr. exped. under the leadership of the late Prof. J. Schmidt, 1-16. Bianco Luno A/S. Copenhagen (1935). **b - 1219**

Genesis of eel. Previous investigators. Distribution, spawning place of *Anguilla vulgaris, A. rostrata, A. obscura, A. megastoma, A. bicolor, A. mauritiana* and others. Papers on Eel-investigations by J. Schmidt. J. Schmidt's Eel-expeditions.

**Schultz L. P.** - A new Ceratiid Fish from the Gulf of Alaska [*Piscis novus Ceratoideus ad Sinum Alaskianum pertinens*]. 4 figs., Copeia, 2, 66-68. New York (1934). **b - 1220**

*Dolopichtys thompsoni* n. sp.

**Scott E. O. G.** - Notes on the Gobies Recorded from Tasmania, with Description of a New Genus [*Gobiidae a Tasmania provenientes cum descriptione novi generis*]. 2 figs., 1 pl., Pap. & Proc. R. Soc. Tasmania 1934, 47-62. Hobart (1935). **b - 1221**

Four species of *Gobiidae* are described with synonymies, localities and habits. *Tasmanogobius* gen. nov. with the species *T. lordi* sp. nov.

**Setna S. B.** - Development of the Trout Scale [*Progressio squamarum speciei truttae*]. 4 pls., Journ. Univ. Bombay, II, 5, 17-32. Bombay (1934). **b - 1222**

Description of a new method of impregnating with silver nitrate for the study of the growth of the different scale layers.

**Slastenenko E.** - A New Blennoid Fish, *Blennius Knipowitschi* sp. nov., from the Black Sea [*Piscis novus in Ponto Euxino: « Blennius Knipowitschi »*]. (In Russ. & Engl.). 1 fig., C. R. Acad. Sc., U. R. S. S., I, 6, 357-360. Léningrad (1934). **b - 1223**

Account of the discovery of a new form of Blennoid fish in the material in possession of the Academy of Sciences, the Biological Station of Sebastopol, etc., to whom A. has given the name of *Blennius Knipowitschi* sp. nov., in honor of Prof. N. Knipowitsch. Diagnosis of the new species.

**Slastenenko E. P.** - I *Blennius* del Mar Nero [*« Blennius » ad Pontum Euxinum pertinentes*]. 8 fig., Pubbl. Staz. Zool. Napoli, XIV, 1, 95-109. Napoli (1934). **b - 1224**

Descrizione del genere *Blennius* e delle sue specie. Descrizione delle 7 specie osservate nel Mar Nero, determinate in base al carattere dei tentacoli sopraorbitali: *B. ponticus* e *B. tentacularis* con tentacoli complicati e molto sviluppati; *B. sanguinolentus* con tentacoli a forma di forchetta; *B. sphinx* con tentacoli semplici, sviluppati, filiformi, *B. pavo* con tentacoli semplici, molto piccoli; *B. galerita* con tentacoli impari tra gli occhi e *B. Knipowitschi* privo di tentacoli.

**Slastenenko E. P.** - The *Scorpaena* of the Black Sea [*De « Scorpaena » ad Pontum Euxinum pertinente*]. (In Russ. & Engl.). 1 fig., C. R. Acad. Sc., I, 1, 74-80. Léningrad (1935). **b - 1225**

After a short introduction, in which Author describes the differences between Mediterranean forms of *Scorpaena* and those of the Black Sea, he emphasizes some biological peculiarities of the species of this fish with especial regard to the migration of *S. scrofa* in larval stage, giving then a diagnosis of the two species of *Scorpaena* of the Black Sea, i. e.: *S. porcus* and *S. scrofa* infrasp. *afimbria* nov.

**Slastnikov G. S.** - The Char of the Novaja Zemlja, Its Age and Rate of Growth [*Species « Salvelinus alpinus » ad* Novaja Zemlya *pertinens. Quaestio de aetate et progrediendi rapiditate*]. (In Russ., Engl. Rés.). 3 grs., 11 tabl., 1 pl. o. t., Scient. Res. Biol. Exp. Novaja Zemlja, 1931-1934, no. 2. Trans. Arct. Inst., XVII, 70-88. Leningrad (1935). **b - 1226**

Author gives an account of the results obtained during the study of the material, consisting of scales, opercula, subopercula, and first rays of dorsal, pectoral and anal fins of *S. alpinus* L., collected in 1931 in Krestovaja Bay (Novaja Zemlja) by the Scientific Fishery Expedition of the Arctic Institute of U. S. S. R. Some conclusions are drawn as to the age and the rate of growth of this fish.

**Smith J. L. B.** - Marine Fishes of seven Genera new to South Africa [*Septem genera piscium marinorum in Africa merid. novorum*]. 2 pls., 1 fig., Trans. R. Soc. S. Africa, XXII, 1, 89-100. Cape Town (1934). **b - 1227**

*Microphis brachyurus, Scolopsis vosmeri, Grammonus opisthodon* n. sp., *Papyrichthys pellucidus* n. sp., *Schedophilus medusophagus, Setarches güntheri* and *Batrichthys albofasciatus* n. sp.

**Smith J. L. B.** - The Fishes of the Family *Mugilidae* in South Africa [*Pisces ad « Mugilidae » pertinentes in Africa Merid.*]. 17 figs., 8 pls. o. t., Ann. South. Afric. Mus., XXX, 5, 587-644. Edinburgh (1935). **b - 1228**

In this paper the A. has tackled a very difficult problem in systematics of the members of the family *Mugilidae*, known in South Africa as « Harder », which previous writers have left severely alone, in spite of the fact that from the scientific point of view it is important to have the species occurring in South African waters defined as accurate as possible. The general diagnosis of *Mugilidae* in South African waters; growth changes; scales; scaly basal process of first dorsal; dentition; ventral fins; gills and gill-rakers; dimensional relationship, etc. Key to the South African species and description of single species, two of which are new to science: *Mugil tricuspidens* n. sp. and *M. canaliculatus* n. sp.

**Šoljan T.** - Skrb riba za potomstvo i njena sistematika [*Patrimonium ichthyologicum, piscicultura eiusque systematica*]. (Dtsch. Rés.). Extr. Rec. Trav. offert à Jivoïn Georgévitch à l'occasion de son soixantième anniversaire, 191-210. Beograd (1933). **b - 1229**

Definierung des Begriffes Nachkommenschaft. Kritik des von Meisenheimer aufgestellten Systems. Differenzierung des Systems in eine synparentale und eine extraparentale Gruppe.

**Souché G.** - Sur un poisson rare de la Manche [*De pisce quodam raro ad Fretum Britannicum pertinente*]. 1 fig., Bull. Stat. Biol. Arcachon, XXX, 2, 277-281. Bordeaux (1934). **b - 1230**

Renseignements donnés sur le poisson *Pleuronectes maculatus* par des ichthyologistes précédents. Recherches de l'A., dont on peut conclure que c'est l'absence de cette espèce sur les marchés qui a fait penser à sa grande rareté. Sa présence dans la Manche, se trouve maintenant établie.

**Souché G.** - Sur un *Flesus vulgaris* à pigmentation anormale [*Species « Flesus vulgaris » anormali praedita pigmentatione*]. 2 fig., Bull. Stat. Biol. Arcachon, XXX, 2, 285-288. Bordeaux (1934). **b - 1231**

**Souché G.** - Note sur l'habitat, les mœurs et l'utilisation de *Cyclopterus lumpus* L. [*Species « Cyclopterus lumpus ». De habitat, consuetudinibus, utilitate*]. Bull. Stat. Biol. Arcachon, XXX, 2, 289-296. Bordeaux (1934). **b - 1232**

Résumé des diverses connaissances fournies par les auteurs précédents. Considérations sur la distribution géographique de cette espèce, sa fréquence, son habitat, sa morphologie.

**Storrow B. & Cowan D.** - Herring Investigations [*Investigationes de Aringis*]. Tabl. Armstrong Coll. Dove Mar. Labor., Rep. for the Year ending July 31st 1934. Third ser. No. 2, 9-21. Cullercoats Northumb. (1934). **b - 1233**

These investigations concern Yarmouth samples and those from the north of Scotland and the northwest of Ireland. Data referring to size, sex, maturity, age and growth as calculated from the scales have been obtained from 11 samples comprising 1.857 fish.

**Supino F.** - Osservazioni sul *Belone acus* [*Observationes speciei «Belone acus »*]. 3 fig., Natura (Riv. Sc. Natur.), XXVI, 1, 1-9. Milano (1935). **b - 1234**

In questo breve studio l'A. accenna ad alcuni caratteri morfologici del *Belone acus* sia allo stato adulto che nei vari stadi di sviluppo. Fa confronti con altri Scomberesocidi nonchè con alcuni Scombridi.

**Svetovidov A.** - On the Black Sea Subspecies of the Whiting (*Gadus merlangus euxinus*) [*De subspecie « Gadus merlangus euxinus »*]. (In Russ., Engl. Summ.). 2 fig., 1 table, C. R. Acad. Sc. U. R. S. S., I, 6, 421-427. Léningrad (1935). **b - 1235**

Description, diagnosis and comparison between *G. merlangus* Linné and *G. euxinus* Nordmann, from which the A. concludes that *G. euxinus* is neither a separate species non identical, but a subspecies of *G. merlangus* L. inhabiting the Black Sea.

**Svetovidov A.** - A Second Species of Cod of the Genus *Boreogadus* (*Boreogadus agilis* Reinhardt) [*De secunda quadam specie ex merluccis ad genus « Boreogadus » pertinente*]. (In Russ. & Engl.). 2 figs., 1 table. C. R. Acad. Sc. U. R. S. S., I, 6, 427-432. Léningrad (1935). **b - 1236**

Among the specimens of the cod family preserved in the collections of the Zoological Institute of the Academy of Sciences, USSR, there are three small cod fishes, presented by J. Reinhardt in 1842 from the coasts of Greenland, of which two specimens have been formerly identified as *Gadus agilis* Reinhardt and one, as *G. ogak* Reinh. Being closely related to *Boreogadus saida* (Lep.), these specimens have a number of particular characteristics, and therefore must be referred to a separate species *B. agilis* (Reinhardt), whose description is given in this paper.

**Syrovatskij J.** - Zur Biologie der Fische des Schwarzen Meeres [*De biologia piscium ad Pontum Euxinum pertinentium*]. (Russ. Text, Dtsch. Rés.). C. R. Acad. Sc. U. R. S. S., II, 3, 197-200. Léningrad (1934). **b - 1237**

Zusammenfassende Wiedergabe der von der Ukrainischen Abteilung des Institutes für die Fischereikunde des Schwarzen und des Azowschen Meeres in dem nord-westlichen Teile des ersten Meeres durchgeführten Forschungen mit besonderer Berücksichtigung der Biologie von *Scomber scombrus, Spratella sprattus phalerica, Sarda sarda* und *Caspialosa pontica*. Die Ergebnisse haben auch eine grosse praktische Bedeutung für die Fischerei der oben erwähnten Fischarten.

**Taranetz A.** - A Short Review of the Fishes of the Genus *Gymnogobius* with a Description of One New Species and Notes on Some Related ones [*Inspectio brevior piscium ad genus « Gymnogobius » pertinentium cum descriptione novae cuiusdam speciei notisque de speciebus affinibus*]. (In Russ., Engl. Rés.). C. R. Acad. Sc. U. R. S. S., III, 5, 397-400. Léningrad (1934). **b - 1238**

Diagnosis of the following forms: *Gymnogobius* Gill.: *G. macrognathus* (Bleeker), *G. raninus* sp. n.; *Chasmichthys* Jordan.

**Taranetz A.** - On the Species of the Genus *Hypomesus* in the Basin of the Sea of Japan [*De speciebus ad genus « Hypomesus » pertinentibus in Mari Japonico*]. (In Russ. & Engl.). C. R. Acad. Sc. U. R. S. S., III, 8/9, 675-676. Léningrad (1934). **b - 1239**

Description and diagnosis of *Hypomesus pretiosus* (Girard) and *H. olidus* (Pallas).

**Taranetz A.** - Sur la question de la différence entre *Sardinops melanosticta* et *S. caerulea* [*Quaestio de differentia inter « Sardinops melanosticta » et « Sardinops caerulea »*]. Rybn. Choz. Daljn. Vostoka, XIII, 1, 40. Khabarovsk (1935). **b - 1240**

Sur la base de l'examen de 69 exemplaires de la sardine californienne *S. caerulea* de San Pedro Baie et de 79 exemplaires de la sardine de l'Extrême Orient, *S. melanosticta*, l'A. affirme qu'il n'y a pas de différence assez marquée entre ces deux formes, et que, par conséquent on ne peut pas les considérer comme deux espèces diverses, mais seulement comme deux sous-espèces. Etant donné que la sardine californienne a été décrite plus tard de la sardine de l'Extrême Orient, l'A. propose de lui donner le nom de *S. melanosticta caerulea* (Girard).

**Taranetz A. & Andriaschev A.** - On a New Genus and Species, *Petroschmidtia albonotata* (*Zoarcidae, Pisces*) from the Okhotsk Sea [*Species « Petroschmidtia albonotata » (Zoarcidae, Pisces) ad Mare* Okhotsk *pertinens*]. (In Russ. & Engl.). 2 figs., C. R. Acad. Sc. U. R. S. S., II, 8, 506-512. Léningrad (1934). **b - 1241**

Extract from a more detailed paper containing a survey of the genus *Lycodes* Reinhardt and some other closely allied genera. The material for this survey has been furnished by the numerous expeditions organized in 1931-1933 by the Pacific Scientific Institute of Fisheries and the State Hydrological Institute in the Chukhotsk, Bering, Okhotsk and Japan Seas and by the collection of *Zoarcidae* from Russian Far Eastern Seas of the Ichthyological Section of the Zoological Institute of the USSR Academy of Sciences. Among these collections a new form has been discovered, of which only a single species is known from the Okhotsk Sea, *Petroschmidtia albonotata*, n. gen., n. sp.

**Taranetz A. & Andriaschev A.** - On a New Fish of the Family *Zoarcidae* from the Littoral Fauna of the Commanders' Islands [*Piscis novus ex « Zoarcidis » a fauna litorea insularum* Commanders' *proveniens*]. (In Russ., Engl. Rés.). 2 figs., C. R. Acad. Sc. U. R. S. S., I, 267-270. Léningrad (1935). **b - 1242**

Among the fishes collected on the shores of the Commanders' Islands, the author had discovered several specimens of a species not corresponding to any of the known genera of the family *Zoarcidae*, which is described in the present Note as a new genus and species *Commandorella Popovi*, n. g. n. sp.

**Tchang T. L.** - Study of the gymnodont Fishes of Tsingtao [*De piscibus gymnodontis ad* Tsingtao *pertinentibus*]. 1 fig., 2 pls., Lingn. Scient. Journ., XIV, 2, 315-320. Canton (1935). **b - 1243**

Description of *Triacanthus brevirostris, Cantherines modestus* and 5 spp. of *Spheroides*.

**Tomiyama I.** - Four new Species of Gobies of Japan [*Gobiidae. Species quattuor ad Japoniam pertinentes*]. 5 figs., Journ. Fac. Sc. Imp. Univ. Tokyo, Sect., 4, Zool. III, 3, 325-334. Tokyo (1933). **b - 1244**

*Rhinogobius barbatus* n. sp., *Tridentiger nudicervicus* n. sp., *Gobiodon gnathus* n. sp. and *Apocryptodon punctatus* n. sp.

**Tortonese E.** - Pesci della Persia raccolti dal marchese Giacomo Doria (1862) [*De piscibus persianis a marchione* Doria *collectis. A. 1862*]. 1 tav., Boll. Mus. Zool. e Anat. Comp. R. Univ. Torino, XLIV, 49, 153-170. Torino (1934). **b - 1245**

Il materiale descritto assomma a 23 specie provenienti da Schiras nell'interno della Persia e Bender Abbas, sulla costa.

**Tortonese E.** - Su alcune specie africane del genere *Clarias* [*De speciebus africanis ad genus « Clarias » pertinentibus*]. Boll. Mus. Zool. e Anat. Comp. R. Univ. Torino, XLIV, ser. III, 53, 231-239. Torino (1934). **b - 1246**

Caratteri descrittivi, sistematici e habitat di alcune specie africane del genere *Clarias* (*Ostariophysi, Siluroidei*, fam. *Claridae*): *C. gariepinus* (Burch.), *C. mossambicus* Peters, *C. carsonii* Blgr. e *C. liocephalus* Blgr.

**Tortonese E.** - La collezione ittiologica del R. Museo Zoologico di Torino [*Collectio ichthyologica in Museo Zoologico Taurinensi*]. Boll. Mus. Zool. e Anat. Comp. R. Univ. Torino, XLIV, ser. III, 54, 241-247. Torino (1934). **b - 1247**

**Tortonese E.** - Elenco dei pesci italiani con annotazioni sistematiche [*Elenchus piscium italicorum cum notis systematicis*]. Boll. Pesca, Piscicolt. e Idrobiol., XI, 2, 211-254. Roma (1935). **b - 1248**

L'A. ha raggruppato l'ittiofauna italiana in un nuovo elenco uniformandosi a criteri sistematici moderni, e ove necessario, aggiornando la nomenclatura delle specie che la compongono. La classificazione seguita è quella del Regan.

**Uchida Keitaro** - *Coryphaena equisetis* caught in the southwestern Japan Sea [*Species « Coryphaena equisetis » capta in regione sud-orientali maris Japonici*]. (In Jap., Engl. Rés.). 2 tabl., 3 figs., Bull. Jap. Soc. Scient. Fish., IV, 4, 224-228. Tokyo (1935). **b - 1249**

*Coryphaena equisetis* hitherto unknown from Japanese waters is now well known among the fishermen off the coast of Shimane Prefecture. Appearance and migrations; life habits; size.

**Umali F. A.** - Little-known Fishes from the Philippines [*De piscibus parum notis ad insulas Philippinas pertinentibus*]. 1 pl. o. t., Philipp. Journ. Sc., LVI, 3, 319-325. Manila (1935). **b - 1250**

Systematic description of three rare Philippine Fishes based on seven specimens collected from the Manila markets and Lingayen Gulf mixed with catches of the beam trawls. The specimens belong to the families *Uranoscopidae* and *Ophidiidae*.

**Uno M.** - Drift-net Skipper in the Northeastern Waters of Japan (Preliminary Report I) [*Species « Scomberesox saurus » in retibus fixis in Japonia nordorientali*]. (Engl. & Jap. Text.). 1 tabl., Bull. Jap. Soc. Scient. Fish., IV, 1, 45-46. Tokyo (1935). **b - 1251**

Body length, weight measurements, age, sex and maturity determinations of 2170 samples of driftnet skipper.

**Villadolid D. V. & Manacop P. R.** - The Philippine *Phallostethidae*, a Description of a New Subspecies, and a Report on the Biology of *Gulaphallus mirabilis* Herre [*« Phalostethidae » ad Philippinas Insulas pertinentes. Descriptio novae subspeciei « G. mirabilis » eiusque biologia*]. 3 figs., 5 pl., 5 tabl., Philipp. Journ. Sc., LV, 3, 193-220. Manila (1934). **b - 1252**

The writers describe the new species *Gulaphallus amaricola* sp. nov., collected from the brackish water about Manila Bay. The Philippine *Phallostethidae*. Breeding habits. Spawning season. Food and feeding habits of *Gulaphallus*. Embryology of *G. mirabilis*. Postembryonic development, with special reference to the development of the male copulatory organs.

**Vladykov V. D.** - Environmental and Taxonomic Characters of Fishes [*Piscium peculiaritates ex ambiente et taxonomia*]. Trans. R. Canad, Instit., XX, part I, 43, 100-140. Toronto (1934). **b - 1253**

I. Variations in morphological characters: Vertebrae, scales, rays of vertical fins, rays of paired fins, gill rakers, body proportions, size, additional examples. II. Physiological variations: landlocked forms, sex reversal. III. Action of environment: period of influence, environmental factors (temperature, salinity, space). Bibl.

**Vladykov V. D.** - « Three-eyed » Haddock (*Melanogrammus aeglefinus*) caught at St. Andrews, New Brunswick [*Species « Melanogrammus aeglefinus » capta apud* St. Andrews (New. Brunswick)]. Canad. Field-Natural., 49, 64. Ottawa (1935). **b - 1254**

**Vladykov V. D.** - Haddock Races Along the North American Coast [*Species « Gadus aeglefinus » praeter litora Americae septentrionalis*]. 2 figs., Canad. Fisherm., XXII, 6, 15-17. Gardenvale, Que. (1935).

(—) Progr. Rep. Atlant. Biol. Stat., 14, 3-7. St. Andrews, N. B. (1935). **b - 1255**

Results of a preliminary investigation conducted by the Atlantic Fisheries Experimental Station on the racial characteristics and composition of the haddock schools from various grounds in North American waters, which indicate that there are three distinct haddock populations (Newfoundland, Nova Scotia and New England), which do not migrate from one region to the other.

**Walford L. A.** - The Sharks and Rays of California [*« Squalus » et « Raja » ad Californiam pertinentes*]. 58 figs., Div. Fish & Game California, Fish Bull. 45, 3-66. Sacramento (1935). **b - 1256**

Commercial uses of sharks and rays. Key to identification of sharks and rays found in California (including the ratfish). Descriptions and illustrations of fishes.

**Wang King F.** - Study of the Teleost Fishes of coastal Region of Shantung 1. [*De piscibus teleosteis ad litora* Shantung *pertinentibus*]. 39 figs., Contr. Biol. Lab. Sc. Soc. China, Zool. ser. IX, 1, 1-76. (1933). **b - 1257**

Isospondyles, a few Eels and Ostariophysi, Synentognaths, Flatfishes, Lophobranchs, Percesoces and other groups forning together 74 spp. of 32 fam. and 55 genera.

**Watson D. M. S.** - The Interpretation of Arthrodires [*« Arthrodira ». Quaestio de interpretatione*]. Proc. Zool. Soc. London 1934, 3, 437-464. London (1934). **b - 1258**

Classification, morphology: dentition and bone structure, comparison with *Coccosteus* and *Dinichthys*. New genus: *Rhamphodopsis* erected for *R. threiplandi* n. sp.

**Whitley G.** - The Oblong Sunfish (*Ranzania*) in the Indian Ocean [*« Ranzania » in Oceano Indiano*]. Nature, CXXXVI, 3435. 338. London (1935). **b - 1259**

Some records and bibliographical references on the occurrence of *Ranzania* in the Indian Ocean.

**Whitley G.** - Fishes from Princess Charlotte Bay, North Queensland [*Pisces ad bajam* « Princess Charlotte » *in* Queensland *septemtr. pertinentes*]. 11 fig., Rec. South Austr. Mus., V, 3, 345-365. Adelaide (1935). **b - 1260**

Description of about 30 species with synonymies belonging to 14 Families. 5 new genera recorded and 2 new spp. Remarks on some typical specimens of *Chandidae*, examined for comparison with *Ambassis telkara* Whitley.

**Yessipov W. K.** - Materials on the Life History and Fishery on the Char of Novaja Zemlja (*Salvelinus alpinus* L.) [*Res collectae quoad cyclum evolutionis et piscationem speciei « Salvelinus alpinus » ad* Novaja Zemlja *pertinentis*]. (In Russ., Engl. Rés.). 15 figs., 15 tabl., Scient. Res. Biol. Exp. Novaja Zemlja, 1931-1934, n. 2, Trans. Arct. Inst., XVII, 5-70. Leningrad (1935). **b - 1261**

Life history of the char of Novaja Zemlja based upon the work carried out in 1931 and 1932 in Krestovaya Bay and in the River Nekhvatova (Western shore of the Southern Island of Novaja Zemlja): Distribution on Novaja Zemlja. Migration and spawning Fecundity. Feeding. Fishery and biological characteristics. Fishing localities and gears on Novaja Zemlja. Methods of preparation.

**An.** - Rare Fish Caught in B. C. [*Piscis rarus in Columbia Britannica captus*]. Canad. Fisherm., XXII, 9, 25. Gardenvale, Que. (1935). **b - 1262**

Communication of the landing in the traps of Todd Canneries in the Strait of Juan de Fuca of an extremely rare fish, the rag fish, *Acrotus Willoughby*, a skin-fish without any scales which is believed to be a member of the deepwater colony. Of this fish only five specimens are known. Short description.

**An.** - Many Varieties of Fish in Carteret Waters [*Varietates piscium in* Carteret]. Fish & Oyst. Rep., XVI, 6, 5 & 8. Tampa, Fla. (1935). **b - 1263**

Summary of information given by Dr Herbert F. Prytherch, director of the U. S. Fisheries Biological Laboratory in Piver's Island at Beaufort, according to which a total of 291 different species of fish have been collected in waters adjacent to and within the boundaries of Carteret county.

**An.** - No Ocean Sunfish in Stomachs of Dolphin Dr. Gudger Dissected [*In stomachis Delphinorum a Dr.* Gudger *secatorum non reperitur species «Mola mola»*]. Fish & Oyst. Rep., XVI, 10, 13. Tampa, Fla. (1935). **b - 1264**

Brief account of a letter from Dr. Gudger, ichthyologist of the American Museum of Natural History in New York, followed by some supplementary remarks concerning the ocean sunfish.

**An.** - Third List of Fishes in the Newfoundland Fishing Area [*Elenchus tertius piscium in* Newfoundland *area piscosa repertium*]. Rep. Newfoundland Fish. Res. Comm., II, 2, App. D, 115-117. Plymouth (1934). **b - 1265**

## Mammalia.

**Arsenjev V. A.** - Quelques données sur *Delphinapterus leucas* Pall. et sa chasse sur l'Ile Sakhaline [*Notae de specie « Delphinapterus leucas » deque captura in insula* Sakhalin]. (En russe). 12 tabl., Rybn. Choz. Daljn. Vostoka, XIII, 1, 89-99. Khabarovsk (1935). **b - 1266**

L'A. décrit les migrations de *D. leucas* Pall. le long de la côte Est de l'Ile de Sakhaline, les époques, la direction, et décrit enfin la composition des captures de ce cétacé, au point de vue de l'âge, du sexe et du poids des exemplaires.

**Edinger T.** - Das Loch Ness-Monster [*De monstro in* Loch Ness]. Naturwiss., XXIII, 19, 309-310. Berlin (1935). **b - 1267**

Kritische Betrachtung von zwei über das Loch Ness-Monster erschienenen Werken. Der Vf. ist der Ansicht, dass es sich um eine Otter oder eine Robbe (*Halichoerus gryphus*) handelt.

**Ferreira E.** - Gigantes dos Mares dos Açores [*De animalibus gigantibus ad insulas* Açores *pertinentibus*]. 2 fig., Açoreana, I, 2, 74-85. Açôres (1935). **b - 1268**

Das catorze especies dos Cetaceos: *Delphinus delphis* L., *D. marginatus* Duv., *Phocaena communis* Cuv., *Tursiops tursio* Fabricius, *Grampus griseus* Cuv., *Globicephalus melas* Flower, *Orca gladiatoria* Gray, *Physeter macrocephalus* L., *Kogia breviceps* Blaim., *Balaena biscayensis* Eschricht, *Balaenoptera acuto-rostrata* Lacépède., *B. musculus* L., *B. sibbaldii* Gray, *Megaptera boops* Muller) para os açorianos a mais importante è o cachalote (*Physeter macrocephalus*), ainda têm procura o azeite, a espermacete e o ambar cinzento.

**Gould R. T.** - The Loch Ness Monster and Others [*De monstro in* Loch Ness *aliisque*]. 7 pl., 46 fig., XII + 228 pp. Geoffrey Bles. London (1934). **b - 1269**

**Gray R. W.** - Do Whales Descend to Great Depths? [*Num Balaenae in maximas descendunt profunditates ?*]. Nature, CXXXV, 3401, 34-35; 3417, 656-657 London (1935). **b - 1270**

The A. presents some awkward facts to those who, on theoretical grounds, deny that Whales descend below very moderate depths. In answer to Dr. Ommanney's objection, the A. recapitulates Scoresby's observations which have led him to infer that Whales can descend to great depths, 700-800 fathoms (not 2,500 fathoms as stated in Nature of March 16, p. 429). Sir Leonard Hill expresses the opinion that Whales need not suffer from caisson disease after deep diving as there is not enough air in their lungs to produce bubbles of nitrogen in the blood when the animals come back to the surface. (Nature's abstract on page 659).

**Hatt T. R.** - A Manatee collected by the American Museum Congo Expedition, with Observations on the Recent Manatees [*Trichechus collectus perdurante expeditione a Museo Americano cuius nomen* American Museum Congo *peracta. Observationes adiunguntur de recentibus Trichechis*]. 1 pl., 2 figs., Bull. Amer. Mus. Natur. Hist., LXVI, 4, 533-566. New York (1934). **b - 1271**

Nomenclature and criteria for the classification of the Manatees and their morphology. The distribution of *Trichechus* in the African region. Uncertain or erroneous reports of *T. senegalensis*. Bibl.

**Hausman L. A.** - On the Structure of the Hair of the sea Whale (*Balaenoptera borealis*) [*Pilus balaenae. Quaestio de structura*]. Amer. Natural., LXVIII, 84-88. New York (1934). **b - 1272**

Studies on the microscopical and morphological structure of the hair and its colour. No characteristical difference from other Mammals can be pointed out.

**Irving L.** - The Protection of Whales from the Danger of Caisson Disease [*De tutela Balaenarum in morbos*]. Science, LXXX, 2110, 560-561. New York (1935). **b - 1273**

Discussion on the respiratory activity and the nitrogen capacity of Whales, case of danger. Comparison with the circulation of human divers. Other factors than respiratory and cardio-vascular systems should not be combined with the disease.

**Matsuura Yoshio** - On the Sperm Whale found in the Adjacent Waters of Japan [« *Physeter macrocephalus* L. » *repertus in Japoniae propinquitatibus*]. (In Jap., Engl. Rés.), 13 tabl., 4 fig., Bull. Jap. Soc. Scient. Fish., IV, 2, 101-112. Tokyo (1935). **b - 1274**

The sperm whale (*Physeter macrocephalus* L.) is found exclusively on the Pacific side of the islands of Japan and its whaling has been carried on chiefly in the northern part of the empire. Migration of Males and Females separately. Times of reproduction.

**Matsuura Yoshio** - The Distribution and Habits of Humpback Whales in the Adjacent Waters of Japan [« *Megaptera* ». *Distributio et consuetudines in Japoniae propinquitatibus*]. (In Jap., Engl., Rés.). 9 tabl., 7 fig., Bull. Jap. Soc. Scient. Fish., IV, 3, 161-170. Tokyo (1935). **b - 1275**

A remarkable diminution of Humpbacks, *Megaptera nodosa* (Bonnaterre) has been noticed in Japan as in other parts of the world. Migration, length, sexual maturity and reproduction. Bibl.

**Mayorowa A. A. & Danilevskij N. N.** - Matériaux sur la biologie du dauphin de la Mer Noire [*Res collectae ad studendam biologiam speciei « Delphinus delphis » Ponti Euxini*]. (En russe, rés., franç. et géorg.). 4 graph., 14 tabl., 2 tabl. h. t., Trav. Stat. Piscic. & Biol. Géorgie, I, 1, 181-210. Batoum-Tiflis (1934). **b - 1276**

Résultats d'une étude sur la biologie, la morphologie, la distribution, la reproduction, la composition des troupeaux, la proportion des différents groupes d'âge et la composition sexuelle des stocks du dauphin de la Mer Noire qui se composent principalement d'individus appartenant à l'espèce *Delphinus delphis*.

**Naoumoff S. P.** - Les Phoques de l'URSS [*De phocis ad URSS pertinentibus*]. (En russe). 18 fig., 105 pp., Koizd., Moskva-Leningrad (1933). **b - 1277**

**Ommanney F. D.** - Do Whales Descend to Great Depths ? [*Num balaenae in maximas descendunt profunditates ?*]. Nature, CXXXV, 3411, 429-430. London (1935). **b - 1278**

Mr. R. W. Gray's suggestion that Whales can descend to 2,500 fathoms or more without suffering from caisson disease is disputed by the A. He remarks that observations upon the behaviour of Whales struck by harpoons offer little indication of their normal habits, and that descent even to two hundred fathoms would involve compression of the lungs to 1/35 of their usual volume. (Nature's abstract on page 437).

**Oudemans A. C.** - The Loch Ness Monster [*De monstro in* Loch Ness]. 7 fig., 14 pp. Late E. J. Brill. Leyden (1934). **b - 1279**

**Plekhanov P.** - Détermination de l'âge chez le Phoque [*Aetatis determinatio in Phoca*]. (En russe). 10 fig., Abstr. Works Inst. Zool., 1, 88-91. Moscow (1935). **b - 1280**

Bref compte-rendu des résultats des recherches de l'A. faites en vue de l'élaboration d'une méthode qui pourrait servir à la détermination de l'âge du phoque, *Phoca groenlandica*, basée sur la mesure du crâne et du nombre d'anneaux sur les ongles de ce palmipède.

**Pocock R. I.** - The Presence of the external Pinna in the grey Seal (*Halichoerus gryphus*) [*De pinna externa in phoca cinerea*]. 1 fig., Proc. Zool. Soc. London, 2, 419-420. London (1933). **b - 1281**

Two cases of external pinna hitherto unknown in the *Phocidae* recorded.

**Puglisi A.** - I Delfini [*De Delphinis*]. Riv. Freddo, 3, 112-114. Roma (1935). **b - 1282**

Si considera la questione dei Delfini non solo dal punto di vista dei danni che arrecano alla pesca e ai pescatori, ma anche da quello della loro utilizzazione.

**Smirnov N.** - Instruction pour l'exécution de travaux sur la biologie des phoques [*Praecepta ad opera biologica de phocis perficienda*]. (En russe). 10 fig., 1 pl. h. t., 58 pp. Instr. Progr. Iz. Prom. Fauny, 4. Leningrad (1934). **b - 1283**

**Townsend C. H.** - The Distribution of Certain Whales as shown by Logbook Records of American Whaleships [*De distributione aliquarum Balaenarum ut legitur in descriptionibus navium pro Balaenis piscatura*]. 4 maps, Zoologica, XIX, 1, 50. New York (1935). **b - 1284**

From logbooks of about 700 whaleships A. has compiled records of whale catches, with interesting and valuable data regarding seasonal distribution and migration of whales.

**K.** - Die Körpertemperatur der Wale [*De temperatura in Balaenarum corpore*]. Umschau, XXXIX, 29, 581. Frankfurt a. M. (1935). **b - 1285**

Kurze Mitteilung über die vom norwegischen Gelehrten Guldberg ausgeführten Messungen.

## Animalia incertae sedis.

**Barroso G.** - Notas sobre briozoos españoles [*De bryozois hispanicis*]. 7 fig., Bol. Soc. Españ. Hist. Nat., XXXV, 7, 373-380. Madrid (1935). **b - 1286**

Las especies que se citan a continuación por primera vez de la fauna española, serviran para ir completando el conocimiento y distribución geográfica de los briozoos de las costas española. Las species descritas están: *Schizopodrella errata* Waters, *S. violacea* Canu y Bassler, *Schizomavella ambita* Waters, *Schizellozoon imperati* Busk, y *Retepora mediterranea* Smitt.

**Hescheler K.** - Bemerkungen über die Brachiopoden [*Observationes de Brachiopodis*]. Rev. Suisse Zool., XLI, 341-348. Genève (1934). **b - 1287**

Die Phylogenesie der Brachiopoden: die Verwandtschaft der *Lingula* mit den festsitzenden Polychaeten und der gemeinsame Ursprung der Prosopygier.

**Nouvel H.** - Observations sur les Dicyémides provenant d'un Poulpe de Mauritanie, description de deux espèces nouvelles [*Observationes de Dicyemidis in polypo mauretanico repertis cum descriptione duarum novarum specierum*]. 15 fig., Bull. Soc. Zool. France, LIX, 176-186. Paris (1934). **b - 1288**

*Dicyema monodi* n. sp., nous intéresse particulièrement pour le phénomène de digestion intracellulaire.

**O' Donoghue C. H.** - Bryozoa encrusting the Hairy Porcelain Crab [*Bryozoa parasitus in Crustaceis Porcellanidis*]. Ann. and Mag. Nat. Hist., 10th. Ser., XVI, 390-392. London (1935). **b - 1289**

**Senn E.** - Die Geschlechtsverhältnisse der Brachiopoden, im besonderen die Spermato- und Oogenese der Gattung *Lingula*. Mit phylogenetischen Ausblicken [*Quaestio de sexu in Brachyopodis, precipue de rebus quae ad spermatogenesim et oogenesim generis « Lingula » pertinent*]. Vierteljahrsschr. Naturf. Ges. Zürich, LXXIX, 1/3, 29-39. Zürich (1934). **b - 1290**

**Stiasny-Wijnhoff G.** - Some Remarks on North Atlantic non-pelagic *Polystylifera* [*Observationes de Polystyliferis non-pelagicis ad oceanum*

*Atlanticum Sept. pertinentibus*]. 3 pls., Quart. Journ. Microsc. Sc., LXXVII, 2, 167-190. London (1934). **b - 1291**

Anatomy and distribution of *Punnettia splendida* (Keferstein), *Uniporus borealis* (Punnett), and *Hubrechtonemertes*, erected for *H. lankesteri* n. sp. (*Drepanophorus* l. Hubrecht).

## Varia.

**Bohn G.** - Leçons de zoologie et biologie générale, 4: Les Invertèbrés; Arthropodes, Mollusques et Echinodermes [*Zoologia et biologia generalis IV. Invertebrata, Arthropoda, Mollusca et Echinodermata*]. 82 fig., 132 pp. Actualités Scient. et Industr., 242, Hermann et Cie. Paris (1935). **b - 1292**

**Bruce J. R.** - Faunistic Notes [*Notae faunisticae*]. Rep. 1934, Mar. Biol. Stat. Port. Erin, 47, 26-27. Liverpool (1934). **b - 1293**

Notes on *Noctiluca scintillans* (Macartney), *Sepia officinalis* L., and *Velella spirans*, observed in the waters of the Isle of Man.

**Cipria G.** - Primo elenco di animali marini in vendita presso l'Istituto Centrale di Biologia marina in Messina [*Elenchus prior animalium marinorum quae veneunt apud Institutum Centrale pro Biologia marina, Messanae*]. Mem. R. Comit. Talass. It., N. CCXXII, 22 pp. Venezia (1935). **b - 1294**

Molluschi, Tunicati, Selaci e Teleostei raccolti nello stretto di Messina e conservati in alcool o in formalina.

**Clark F. N.** - Common and Scientific Names of Fishes, Crustaceans and Mollusks [*Piscium, crustaceorum et molluscorum communes denominationes*]. Div. Fish. & Game; Bur. Comm. Fish., Fish. Bull., 44, App., 44-46. Sacramento. (1935). **b - 1295**

List of the common and scientific names of the various species of fishes, crustaceans and mollusks caught in California waters.

**Cleave (van) H. J.** - An Analysis of some of the Factors influencing the Rate at which Species have been described [*De factoribus qui influunt circa descriptionem aliquarum specierum Piscium Reptilium et Amphibiorum*]. 2 figs., Copeia, 2, 68-73. New York (1933). **b - 1296**

Recent check lists of N. American Fishes, Amphibians, and Reptiles have been analyzed. For each group the number of valid species descr. in each decade since 1758 has been determined. Graphs of rate at which species have been recognized. High and low productivities and influencing factors.

**Germain L.** (publ. sous la direction de) - Faune et Flore de la Méditerranée. Liste des fiches composant les cahiers I à XX [*Fauna et Flora maris mediterranei. Index schedularum ad fascic. I-XX pertinentium*]. Rapp. Pr.-Verb. Cons. Expl. Scient. Méditerranée, IX, (n. sér.), 165-179. Paris (1935). **b - 1297**

*Porifera. Coelenterata. Hydrozoa Anthozoa. Ctenophora. Vermes. Trematoda. Echinodermata. Arthropoda. Crustacea. Mollusca. Gastropoda. Opisthobranchiata. Cephalopoda. Prochordata. Tunicata. Vertebrata. Pisces.*

**Johnson M. W. & Miller C. R.** - The Seasonal Settlement of Shipworms, Barnacles, and other wharf-pile Organisms at Friday Harbor Washington [*De colonisatione pro anni tempore specierum « Bankia setacea », « Limnoria lignorum », « Balanus glandula », Spirorbis spirillum », « Eupomotus », « Bugula pacifica », «Tubulipora flabellaris », « Membranipora villosa », « Microporella californica », aliorumque organismorum in Portu* Friday (Washington)]. Univ. Wash. Publ. in Oceanogr., II, 1, 1-18. Seattle, Wash. (1935). **b - 1298**

Principal seasons and quantity of settlement and factors concerned. Distribution according to the zero tide level. Temperature necessary for breeding.

**Kükenthal W.** - Handbuch der Zoologie: eine Naturgeschichte der Stämme des Tierreiches. *Chelicerata, Pantopoda, Onycophora, Vermes Oligomera* [*Liber de Zoologia: historia naturalis circa stirpes faunisticas*]. III, Hälfte 2, Lief. 9, Teil 2, 289-384. Walter de Gruyter. Berlin & Leipzig (1935). **b - 1299**

**Laffitte V.** - Ensayo metódico de un Catálogo de los peces, crustacéos, moluscos y radiados más comunes de la costa cantábrica [*Catalogus Piscium, Crustaceorum, Echinodermatorum ad litora Cantabrica pertinentium*]. Publ. Soc. Oceanogr. Guipúzcoa. San Sebastian (1935). **b - 1300**

**Miner W. R.** - Marauders of the Sea [*Maris piratae*]. Num. figs., Nat. Geogr. Magaz., LXVIII, 2, 185-208. Washington D. C. (1935). **b - 1301**

On hand of beautifully colored illustrations A. gives a vivid description of some deep-sea animals: different species of Octopuses, Squids, Argonauts, their life habits and industrial importance. Fossil forms.

« **Monitore zoologico italiano** » - Bibliografia. II. Scritti comprensivi e varii di biologia, di zoologia e di anatomia [*Bibliographia. Scripta varia et compendiosa de re biologica, zoologica et anatomica*]. Monit. Zool. It., XLVI, 3, 84-96; 4, 122-132; 5, 162-168; 6/7, 228-236. Firenze (1935). **b - 1302**

**Monterosso R.** - Commentari faunistici sardi. Anno I-1934 [*Commentaria faunistica sarda*]. Rend. Fac. Sc. R. Univ. Cagliari, V, 1, 5-16. Cagliari (1935). **b - 1303**

Si segnalano notizie che interessano la fauna sarda: Balenottera spiaggiata all'Asinara. Cenni sulla fauna sarda. Ermafroditismo in un tonno catturato presso Carloforte (Tonnara Isolapiana).

**Pratt H.** - A Manual of the Common Invertebrate Animals. (Exclusive of Insects) [*De animalibus invertebratis communibus* (*Insectis exceptis*)]. 974 figs., xviii-854 pp. P. Blakiston's Son & Co., Philadelphia (1935). **b - 1304**

Thouroughly revised edition of the « Pratt's Manual », which not only brings the nomenclature up to date but includes many additional species. It contains analytical keys for every phylum, order, family and genus.

**Smith M.** - The Sea Snakes (*Hydrophiidae*) [*Maris serpentes*]. 1 chart, 2 figs., Carlsberg Found. Oceanogr. Exped. round the world 1928-30, and previous « Dana », Exped., Dana-Rep. No. 8, 3-6. Copenhagen & London (1935). **b - 1305**

Notes on 12 species, one of which is new and described here in detail: *Hydrophis parviceps* sp. nov. Many of the specimens have been found in areas where previously no Sea Snakes have been obtained.

# BOTANICA

## Plantae marinae – Algologia.

**Abe Kôgorô** - Zur Kenntnis der Entwicklungsgeschichte von *Heterochordaria*, *Scytosiphon* und *Sorocarpus* [« *Heterochordaria* », « *Scytosiphon* », « *Sorocarpus* ». *De historia accretionis*]. 6 Abb., Sc. Rep. Tôhoku Imp. Univ., fourth ser., Biol., IX, 329-337, (Contr. Mar. Biol. Stat., No. 117, Asamushi, Aomori-Ken) Sendai (1935). **b - 1306**

Verschiedene Arten von Schwärmern; Sporangien; Kopulation; Keimung. Notwendigkeit einer zytologischen Untersuchung für das Verständnis des Generationswechsels.

**Aleeff B.** - Ueber die Autolyse der Algen [*De autolysi algarum*]. Biochem. Ztschr., CCLXXVI, 55-56. Berlin (1935). **b - 1307**

**Ålvik G.** - Plankton-Algen norwegischer Austernpollen. II. Licht und Assimilation in verschiedenen Tiefen [*Algae planctonicae in bacinis Norvegicis ostrearum. Quaestio de luce ac assimilatione in variis profunditatibus*]. Tab., 35 Fig., Bergens Mus. Årb. 1934, 2. Hefte, naturv. r., 5-90. Bergen (1935). **b - 1308**

Frühere Untersuchungen. Lichtabsorption: Die Lichtfelder und Graukeile. Das photographische Papier. Die Wirkungsschwerpunkte der isolierten Spektralbezirke. Die Messapparate. Die Messergebnisse. Vergleich und Besprechung der Ergebnisse. Assimilation: Das Versuchsmaterial, die Ausführung und die Beschreibung der Assimilationsversuche, die Bedeutung der Temperatur, Lage und Ausdehnung der Optimumbereiche, die Einteilung in Starklicht- und Schwachlichtalgen, Bedeutung der Lichtfarbe, Licht und Algenverteilung.

**Barfod** - Seegras-Schwund in der Ostsee [*Species « Zostera marina » in Baltico caret*]. Dtsch. Fisch.-Rundschau, 4, 75-76. Bremerhaven (1935). **b - 1309**

Bedeutung der Seegraswiesen für die Fischerei und die Industrie und die Verkrankung der *Zostera marina* in der Ostsee.

**Bellón Uriarte L.** - Primera campaña biológica a bordo del « Xauen » en aguas de Mallorca (Abril 1933). Algas [*De priore navigatione biologiae causa in navi* « Xauen » *ad Balearem majorem.* (*Mense Aprili 1933*). *Algae*]. Trab. Inst. Españ. Oceanogr., 7, 73-74. Madrid (1934). **b - 1310**

Lista des especies de las siguientes familias: *Caulerpaceae, Spongodiaceae, Udoteaceae, Sargassaceae, Dictyotaceae, Laminariaceae, Gigartinaceae, Rhodomelaceae, Corallinaceae*.

**Black M.** - The Algal Sediments of Andros Island, Bahamas [*De algarum sedimentis in insula* Andros, Bahamas]. 2 pls., 16 figs., Phil. Trans. R. Soc. London, B222, 488, 165-192. London (1933). **b - 1311**

The Algae reported have formed deposits rather mechanically than physiologically. *Gleocapsa viridis, G. granosa* v. *chlora, Plectonema atroviride, Scytonema androsense* and *S. crustaceum* v. *catenula* are new.

**Børgesen F.** - Some Indian *Rhodophyceae*, especially from the Shores of the Presidency of Bombay. III. [*De Rhodophyceis indianis, praecipue a litoribus Provinciae* Bombay *provenientibus*]. 5 pls., 20 figs., Kew Bull. Miscell. Inform., 3, 113-142. London (1933). **b - 1312**

38 spp. and vars. are reported, 9 of which are new.

**Børgesen F.** - A List of Marine Algae from Bombay [*Index Algarum marinarum a* Bombay *provenientium*]. 10 pls., 25 figs., Kgl. Dansk. Vidensk. Selsk. Biol. Medd., XII, 2, 1-64. København (1935). **b - 1313**

Descriptions, localities and distributions of 82 spp., 9 of which are new, with diagnosis in Latin: *Rhizoclonium grande* Boergs., *Cladophora saracenica, C. colabense, C. bombayensis, C. monumentalis, Dictyota dumosa, Peyssonnelia obscura* Web. v. Bosse var. *bombayensis* Boergs., *Cruoriella bicolor*, and *Ectocarpus coniger*.

**Bursa A.** - Liste des algues recueillies dans les eaux de la Baltique Polonaise [*Index algarum collectarum in Baltico Polonico*]. Bull. Int. Acad. Polon. Sc. & Lettres, Cl. Sc. Math. di Nat., 1/3, BI, 69-76. Cracovie (1935). **b - 1314**

Liste comprenant les suivantes espèces d'algues, recueillies entre avril et novembre 1934 au cours d'un séjour à la Station Maritime de Hel. Ordo: *Ulothrichales, Ulvales, Siphonocladiales, Charales, Ectocarpales, Sphacelariales. Laminariales, Fucales, Nemalionales, Gigartinales*.

**Carter N.** - A comparative Study of the Algal Flora of two Salt Marshes. I, II, III [*De flora Algarum in duabus salsis paludibus. Studium comparativum*]. 31 figs., Journ. Ecol., XX, 2, 341-370 (1932); XXI, 1, 128-208, 2, 385-403 (1933). Cambridge (1932-33). **b - 1315**

The Algae studied here belong to the salt marshes in the estuaries of the R. Thames and the R. Dovey in Whales. Part I deals with the zonation observed in the seed plants and Algae associated in each zone. Part II contains a list of all the Algae with ecological notes. In Part III the Algae are grouped into 12 communities discussed here with regard to their zonal distribution and seasonal periodicity.

**Chamagne G.** - Les algues marines dans les carences alimentaires [*De Algis marinis quoad carentias alimentares*]. Rev. Pathol. Comp. et Hyg. Gén., XXXIII, 172-175. Paris (1933). **b - 1316**

**Colla S.** - Ricerche sui gas nei vegetali. I. I gas contenuti negli organi cavi delle alghe [*Investigationes de gas in vegetalibus. I. De* gas *in algarum organis cavis*]. 19 fig., Nuovo Giorn. Bot., XLII, 1, 173-197. Firenze (1935). **b - 1317**

Il gas degli organi cavi delle alghe è una miscela costituita da $O_2$ e $CO_2$; il residuo è azoto. La miscela gassosa varia giornalmente di volume e di pressione: tali variazioni producono delle deformazioni nei tessuti. La curva delle variazioni giornaliere di $O_2$ presenta un massimo nelle ore più luminose della giornata ed in parallelo si trovano i massimi del volume, e della pressione; l'aumento di $O_2$ è dovuto alla fotosintesi, e l'aumento della pressione è dovuto a quello della pressione parziale dell'ossigeno sviluppato. Da cui si ricava che l'ossigeno viene emesso dalla pianta sotto una pressione parziale maggiore

di quella dell'O$_2$ atm. Il CO$_2$ presenta un massimo durante la notte ed uno nel pomeriggio. Le ricerche morfologiche e fisiologiche sono corredate da altre riguardanti la secrezione gassosa da parte delle alghe nel loro ambiente naturale.

**Cottam C.** - Wildlife Research and Management Leaflet [*Fasciculus de investigationibus in faunam et floram silvaticas deque ratione investigationum*]. BS-III, February, U. S. Dpt. Agricult. Washington (1935). **b - 1318**

Summary of data concerning the diminution of *Zostera marina* in the Atlantic Ocean.

**Dangeard P.** - Sur l'identité de *Laminaria Lejolisii* Sauvageau et de *L. iberica* (Hamel) Lami [*De « Laminaria Lejolisii » et « L. iberica ». Quaestio de identitate*]. C. R. Acad. Sc., CCI, 15, 615-617. Paris (1935). **b - 1319**

D'après les observations et les considérations de l'A., on peut conclure que le *Laminaria iberica* vivant sur les côtes atlantiques du Maroc et de la péninsule ibérique ne devrait être séparé du *L. Lejolisii* décrit à Roscoff par Sauvageau.

**Deflandre G.** - Réflexions sur la notion de l'espèce et les variations chez les Diatomées, à propos d'une *Biddulphia* à valves dissemblables [*De speciebus cognoscendis variationibusque in Diatomaeis pro quadam « Biddulphia », valvis praedita dissimilibus*]. 1 fig., Bull. Soc. Franç. Microsc, IV, 1, 14-16. Paris (1935). **b - 1320**

Une *Biddulphia elegantula* Grev. provenant d'une diatomite de Kekko présentait les deux valves tout à fait dissemblables. L'observation sur d'autres préparations porte l'A. à considérer ces formes comme de simples variations pourvu que le genre *Biddulphia* soit incontestablement très polymorphe.

**Emerson R. & Green L.** - Manometric Measurements of Photosynthesis in the marine Alga *Gigartina* [*De mensuris manometricis photosynthesis in alga marina « Gigartina »*]. Journ. gen. Physiol., XVII, 817-842. Baltimore & New York (1934). **b - 1321**

The photosynthesis of *Gigartina harveyana* is compared to that of *Chlorella* and other *Chlorophyceae*. It varies according to temperature intensity of light.

**Frémy P.** - Initiation à l'étude des Cyanophycées [*Introductio in studium Cyanophycearum*]. Tabl., 10 fig., Bull. Soc. Franç. Microsc., III, 3, 1-102. Paris (1934). **b - 1322**

Caractères généraux. Stations des Cyanophycées: Cyanophycées des eaux salées, des eaux douces, des eaux thermales, subaériennes et aériennes. Récolte, conservation et préparation. Détermination. Systématique: groupes, familles (description et clefs des principaux genres). Bibliographie.

**Fritsch F. E.** - The Structure and Reproduction of the *Algae*. Vol. I. Introduction, *Chlorophyceae, Xanthophyceae, Chrysophyceae, Bacillariophyceae, Cryptophyceae, Dinophyceae, Chloromonadineae, Euglenineae,* colorless *Flagellata* [*De Algarum structura et reproductione. Vol. I.um*]. 245 figs., xvii + 791 pp. Macmillan Co. New York (1935). **b - 1323**

General algal textbook covering all groups except the two principal marine classes of *Phaeophyceae* and *Rhodophyceae*. Structure: motile types, palmelloid and dendroid types, coccoid cell, filament, simple and heterotrichous, siphonaceous filament, special adaptations to epiphytic, endophytic and parasitic states, parallelisms of development, particularly with respect to similarities in simple features in *Chlorophyceae, Xantophyceae, Chrysophyceae, Cryptophyceae* and *Dinophyceae*, and in more specialized features for *Chlorophyceae, Phaeophyceae* and *Rhodophyceae*. Four main types of life cycle are distinguished and for each group a skeleton classification is provided. The classification is based on that of Lindemann, Pascher and Schiller. Ample bibliography.

**Gajl G. I.** - Le lin marin (*Phyllospadix Scouleri* Hook) [*Linum marinum. « Phyllospadix Scouleri »*]. (En russe). 2 fig., 2 tabl., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 130-133. Moskva-Khabarovsk (1934). **b - 1324**

Description de l'aspect et des lieux de propagation de *Phyllospadix* dans les mers de l'Extrême-Orient. Structure de la feuille de *Ph.* Perspectives de l'utilisation des fibres de cette algue dans l'industrie de la soie artificielle et dans celle des matériaux thermo-isolants.

**Gajl G. I.** - Sur la question de la rationalisation de la récolte des algues dans un but industriel [*Quaestio de rationalisatione ad Algarum collectionem pertinente pro industria*]. (En russe). 4 fig., Rybn. Choz. Daljn. Vostoka, XIII, 1, 109-117. Khabarovsk (1935). **b - 1325**

Après quelques considérations introductives sur l'importance de la végétation marine pour la pêche et les possibilités de son utilisation industrielle, l'A. étudie en particulier le cycle évolutif de *Laminaria japonica*, sa distribution et sa propagation dans les mers de l'Extrême Orient, et indique certaines mesures dont il recommande l'application en vue de la rationalisation de la récolte de cette algue.

**Gajl G. I.** - La végétation marine, comme composant de la base alimentaire de l'élevage des animaux domestiques et sauvages [*Vegetatio marina ac basis alimentaris animalium domesticorum et silvaticorum in cultura*]. (En russe). 1 tabl., Rybn. Choz. Daljn. Vostoka, XIII, 1, 119-122. Khabarovsk (1935). **b - 1326**

Après avoir fait observer que les algues marines n'ont pas encore été utilisées de façon satisfaisante comme aliment dans la zootechnique, l'A. communique des données concernant le contenu des algues en albumines, en graisses et pigments, en mannite et hydrocarbures extractifs, en cellulose et en cendres, et donne quelques indications concernant leur emploi dans l'alimentation des animaux sauvages et domestiques, dont on fait l'élevage.

**Germain L.** - La mer des Sargasses [*De mari Sargassorum*]. Bull. Inst. Océanogr., 671, 1-23. Monaco (Princ.) (1935).

( — ) V. rés. Bull. Soc. Océanogr. France, 81, 1414-1418. Paris (1935). **b - 1327**

L'A. résume rapidement l'histoire de la découverte de la mer des Sargasses pour parler ensuite de la biologie des sargasses, de l'origine de ces algues et de la faune qui y vit. Il donne un aperçu sur ce que l'on sait actuellement de la mer des Sargasses et cherche à donner une explication de son origine et de son mode probable de formation. Il conclut en affirmant que la mer des Sargasses, malgré les nombreuses études qui lui ont été consacrées, restera pour longtemps encore, un champ d'étude presque inépuisable pour les biologistes.

**Haas P.** - The Smell Emitted by Seaweeds [*De odoribus a « Fucus » emanatis*]. Nature, CXXXV, 3414, 545-546. London (1935). **b - 1328**

The unpleasant smell given off on drying by certain red sea-weeds (genus *Polysiphonia*) is due to methyl sulphide, according to the A. He points out that methyl sulphide is also found in petroleum from Ohio, a fact which supports to some extent the sea-weed theory of the origin of petroleum (Nature's abstract on page 549).

**Hämmerling J.** - Ueber formbildende Substanzen bei «*Acetabularia mediterranea*», ihre räumliche und zeitliche Verteilung und ihre Herkunft [*Agitur de substantiis formantibus in «A. mediterranea» earumque distributione quoad locum et tempus atque etiam de earum origine*]. 65 fig., Arch. f. Entw. Mech., CXXXI, 1-82. Berlin (1934). **b - 1329**

Morphologische Beschreibung dieser Alge mit besonderer Berücksichtigung ihres Nucleus. Versuche der Merotomie mit Bemerkungen über die folgende Regeneration durch kernhaltige und kernlose Teile, welche sich in verschiedener Weise, je nach ihrem Schnitt, verhalten. Es folgt aus den Versuchen, dass die morphogenetischen Substanzen der *Acetabularia* verschieden verteilt sind und wenigstens zwei rhizoide und apicale Kategorien angehören Diese Substanzen, welche in Bezug auf die Menge je nach dem Alter der Alge wechseln, sind auf den Nucleus zurückzuführen.

**Hart T. J.** - On the Diatoms of the Skin Film of Whales, and their possible Bearing on Problems of Whale Movements [*Diatomeae in superficie pellis balaenarum earumque probabilis influentia in problemata de motibus balaenarum*]. 11 pls., 247 + 282 pp., Discovery Rep., iss. Discovery Comm., Colon. Off. London on behalf Gvmt. Depend. Falkland Isls., X, Univ. Press. Cambridge (1933). **b - 1330**

**Häyrén E.** - Två anmärkningsvärda fynd av alger [*De duabus notandis inventionibus Algarum*]. Mem. Soc. pro Fauna et Flora Fennica 1933-1934, 10, 288-289. Helsinki (1933-35). **b - 1331**

*Fucus vesiculosis* L. *f. angustifolia* C. A. Ag. and *Tolypellopsis stelligera* (Bauer) Migula recorded from the Bothnian Golf.

**Howe Marshall A.** - Some marine Algae of the Shantung Peninsula [*De Algis marinis ad paeninsulam* Shantung *pertinentibus*]. 1 fig., Lingn. Scient. Journ., XIII, 4, 667-670. Canton (1934). **b - 1332**

Of the 36 spp. enumerated 8 appear to be new records for China.

**Hustedt F.** - Die Kieselalgen Deutschlands, Oesterreichs und der Schweiz, mit Berücksichtigung der übrigen Länder Europas sowie der angrenzenden Meeresgebiete [*Algae siliceae germanicae, austriacae et helveticae. Agitur etiam de algis a variis Europae regionibus provenientibus atque etiam a maribus adiacentibus*]. Rabenhorst's Kryptogamen-Flora, VII, Abt. 1, Lief. 5, 785-920 (1930); Abt. 2, Lief. 2, 177-320 (1932); Lief. 3, 321-432; Lief. 4, 433-576 (Forts. folgt.). Akad. Verlagsg. Leipzig (1930, 1932 & 1933). **b - 1333**

Beschreibung mit Angabe von Schlüssel und Literatur der Formen, Unterfamilien und Gattungen. Berichtigungen und neue Formen, wie z. B. *Cocconeis diruptoides* n. sp., *Mastogloia subaspera* n. sp., *M. decipiens* n. sp., Adriatisches Meer, und *Mastogloia ignorata* n. sp. und *M. mediterranea*, Mittelmeer.

**Hygen G. & Jorde I.** - Beitrag zur Kenntnis der Algenflora der norwegischen Westküste [*Contributio in Algas cognoscendas ad litus occidentale Norvegiae pertinentes*]. Bergens Mus. Årb. 1934, naturv. r., 9, 1-60. Bergen (1935). **b - 1334**

229 marine Algenarten (56 Chlorophyceen, 88 Phaeophyceen und 85 Rhodophyceen) in der Umgegend von Herdla werden aufgezählt mit Angabe von Fundort und Sporangien. Von diesen sind 57 Arten (24 Grünalgen, 16 Braunalgen und 17 Rotalgen) für die Westküste Norwegens neu.

**Konghisser R.** - Hydrobiological Investigations at the Bering Sea off the NE-Shore of the Peninsula of Kamtchatka (Preliminary Notes) [*De explorationibus biologicis mari* Barents *peractis longe a litoribus nordorientalibus paeninsulae* Kamtschatka (*Notae priores*)]. (In Russ., Engl. Summ.). 1 tabl., Expl. Mers URSS, 19, 116-124. Léningrad (1935). **b - 1335**

Account of the scientific results of a motor-boat expedition to the Korff Bay along the coast line of Karaginsky Island with a view to study the distribution and presence of iodine-containing algae. 230 bottom-fangs were made and 415 plankton-samples taken. The thermical and salinity-stratification of the water, as well as its chemical and physico-chemical composition have been determined, and the principal genera of marine algae forming association have been investigated.

**Levring T.** - Ueber einige Meeresalgen bei Kristineberg an der schwedischen Westküste [*De Algis marinis ad* Kristineberg *pertinentibus ad litora occidentalia Suetia*]. 3 Abb., Bot. Not., 6, 455-463. Lund (1935). **b - 1336**

Verzeichnis von etwa 15 Arten mit Angabe von Fundort, teilweise Beschreibung und Synonymen. Eine Art ist neu: *Chantransia penetrans* n. sp. und 5 neu für Schweden.

**Lucas A. H. S.** - Notes on Australian Marine *Algae*. VII. The *Algae* of the Low Islands [*De algis marinis australiensibus. Algae ad* «Low Islands» *pertinentes*]. Proc. Linn. Soc. N. S. Wales, LIX, 348-350. Sydney (1934). **b - 1337**

**Malquori G.** - I «tripoli» siciliani [*De* «tripoli» *siculis*]. 3 fig., Ric. Scient., I, 2, 97-103. Roma (1935). **b - 1338**

Sono stati esaminati campioni di «tripoli» provenienti da diverse località dell'isola, allo scopo di stabilirne caratteristiche inerenti all'apprezzamento del loro valore tecnico.

**Mills F. Wm.** - An Index to the Genera and Species of the *Diatomaceae* and their Synonyms, 1816–1932. [*Index generum et specierum Diatomacearum eorumque synonymorum*]. Parts XVI–XXI. Appendices, Supplement. 564 pp. Wheldon & Wesley, Ltd. London (1933–35). **b - 1339**

**Molander A. R.** - Nya iakttagelser över förekomsten av *Zostera marina* utmed Svenska kusten [*Observationes novae de «Zostera marina» longe a litoribus Suetiae*]. Ny Svensk Fiskeritidskr., 21, 243-245. Göteborg (1934). **b - 1340**

**Nagai Masaji** - Die japanischen Formen von *Fucus evanescens* Ag. [*De formis Japonicis speciei «Fucus evanescens»*]. 14 Abb., Jap. Journ. Bot. Trans., VII, 3/4, 323-348. Tokyo (1935). **b - 1341**

Einleitende Bemerkungen über andere Formen von *Fucus evanescens* Ag. Schlüssel, Diagnose, teilweise in Lateinisch, mit Angabe von Verbreitung und Fundort von 14 Formen, von denen 4 neu sind.

**Okamura K.** - Icones of Japanese Algae [*Imagines Algarum Japonicarum*]. (Descr. in Jap. and Engl.). Publ. by Author. Tokyo (1934). **b - 1342**

Descriptions of a number of Algae pertaining to *Callymenia, Pleonosporium, Monospora, Gloioderma, Carpopeltis, Rhodymenia, Acanthophora, Centroceras, Spermothamnion, Aeodes, Chondria, Wrangelia* and *Cladophora*, most of which are new.

**Okamura K.** - Short Notes on the Japanese marine Algae [*Brevia de Algis marinis japonicis*]. (Engl. & Jap. rés.). Bot. Magaz., XLVIII, 883-888. Tokyo (1934). **b - 1343**

Several emendations are proposed: *Sarcodia crataeriformis* J. Ag., *Rhodophyllitis capensis* Kütz, *Nemalion japonicum* Yendo & Narita, *Helminthocladia purpurea* (Harv.) J. Ag. and *Chrysymenia pacifica* should be omitted as belonging to the Japanese flora. *Pleonosporium Suyehiroi* = *Spermothamnion Suyehiroi* and *P. Sacchorhiza* S. et G. should belong to the genus *Spermothamnion*.

**Papenfuss G. F.** - Alternation of Generations in *Ectocarpus siliculosus* (Dillw.) [*Species « Ectocarpus siliculosus ». Quaestio de alternatione generum*]. 2 pls., 13 figs., Bot. Gaz., XCVI, 3, 421-446. Chicago, Ill. (1935). **b - 1344**

Further information on the alternation of generations studied on *Ectocarpus siliculosus* in the region of Woods Hole, Mass. Asexual plants are widely distributed in this region but sexual plants have been found exclusively on *Chordaria flagelliformis* as Penikese Island.

**Parke M. W.** - Algologist's Report [*Relatio ab algologista redacta*]. Mar. Biol. Stat. Port Erin, Rep. 1934 (No. 47), 14. Liverpool (1934). **b - 1345**

Brief account of a detailed investigation on the brown sea-weeds and the *Algae* penetrating the shell of *Balanus balanoides* carried on at the Marine Biological Station of the Isle of Man.

**Parke M. W.** - Algological Records for the Manx Region [*De Algis repertis in regione* Manx]. Mar. Biol. Stat. Port Erin, Rep. 1934 (No. 47), 29-36, Liverpool (1934). **b - 1346**

List of *Myxophyceae*, *Chlorophyceae*, *Phaeophyceae*, *Rhodophyceae* and genera of doubtful affinity with indication of the locality where the *Algae* were observed, their frequency, occurrence and other data concerned.

**Patrick R.** - Some Diatoms of the Great Salt Lake as Indicators of Present and Geological Water Conditions [*Diatomeae ad* Great Salt Lake *pertinentes ac indices condicionum hodiernarum et diversarum aetatum geologicarum*]. Biol. Bull. (Progr. & Abstr. of Scient. Papers presented at the Marine Biol. Labor.), LXIX, 2, 338. Lancaster, Pa. (1935). **b - 1347**

There is no evidence of a Diatom Flora living in the lake proper today. The origin of fresh waters and the successive increase in salt concentration is shown by different deposits of fresh, brackish water and euryhaline forms.

**Politis J.** - Plantes marines. Sur la flore marine de l'Attique [*Plantae marinae. De flora marina Attica*]. Rapp. Pr.-Verb. Cons. Expl. Scient. Méditerranée, IX (n. sér.), 131-136. Paris (1935). **b - 1348**

A peu près 300 espèces trouvées dans l'Attique sont énumérées. La plupart des espèces récoltées appartiennent au groupe des Diatomées, mais il y a aussi des algues et champignons peu connus en Grèce ainsi que quatre espèces de plantes phanérogames de la famille des Potamogétonacées et une autre espéce, *Halophila stipulacea* (Forsk.) Ascher.

**Prokhorov K. I.** - Les fourrées de roseaux dans le delta du Volga [*Maculae specierum « Typha angustifolia » et « Phragmites communis » in delta fluminis* Volga]. (En russe). 3 fig., 16 tabl., Izv. Gos. Ghéogr. Obstsch. (Bull. Soc. Géogr.), LXVII, 1, 104-129. Moskva-Leningrad (1935). **b - 1349**

Résultats de l'exploration des fourrées de roseaux qui croissent dans l'embouchure du Volga, envahissent ses rives et les îles et îlots disposés, tant dans le delta lui-même que dans la zone côtière de la Mer Caspienne. Quelques considérations concernant la possibilité d'utiliser les roseaux de la région pour l'extraction de la cellulose et la fabrication du papier.

**Ranson G.** - Le déterminisme de la fixation saisonnière de *Navicula fusiformis* Grün. (*N. ostrearia* Bory). Sa culture expérimentale en ostréiculture [*Quo modo accidit fixatio pro anni tempore in « N. fusiformis ». Species « Navicula ostrearia ». Quaestio de eius cultura experimentali in ostreicultura*]. C. R. Acad. Sc., CCI, 16, 684-687. Paris (1935). **b - 1350**

Description de cette Diatomée pélagique qui présente la propriété de devenir benthique par chimiotactisme lorsque sur le sol se trouve du mucus de l'Huître. Etant donnée l'importance de *N. fusiformis* dans la pratique de l'ostréiculture, on a essayé de faire des cultures de cette algue qui ont donné des résultats intéressants.

**Rees T. K.** - The Marine Algae of Lough Ine [*De Algis marinis ad* Lough Ine *pertinentibus*]. Journ. Ecol., XXIII, 69-133. Cambridge (1935). **b - 1351**

**Roberts W. A.** - Irish Moss and Agar-Agar [« *Chondrus* » *et* agar-agar]. Fish & Oyst. Rep., XVI, 8, 11. Tampa, Fla. (1935). **b - 1352**

Some information on the propagation and use of Irish moss, which is an edible sea-weed found at various localities along the New England coast, but particularly in the vicinity of Scituate and Plymouth Mass.; some considerations on the possibility of making agar-agar with a species of seaweed found along the coast of California and another found along the coast of southern Florida.

**Sauvageau C.** - Un genre *Symphoricoccus* Rke est-il justifié ? [*Genus « Symphoricoccus » est comprobandum ?*]. Bull. Stat. Biol. Arcachon, XXX, 2, 179-188. Bordeaux (1934). **b - 1353**

Particularités qui caractérisent le genre *Symphoricoccus*. Revue critique des travaux qui se sont occupés de la systématique de ce genre, en particulier du travail de Kuckuck. Observations de l'A., qui arrive à la conclusion que la présence de sporanges uniloculaires sur les filaments assimilateurs ne suffit pas, comme le croyait Kuckuck, pour justifier un genre *Symphoricoccus*.

**Sauvageau C.** - Sur le *Climacosorus* nouveau genre de phéosporée [*De « Climacosorus » genere novo ex Phaeosporeis*]. 3 fig., Bull. Stat. Biol. Arcachon, XXX, 2, 189-196. Bordeaux (1934). **b - 1354**

Raisons pour lesquelles l'A. considère le spécimen étudié comme appartenant à un genre indépendant: *Climacosorus* et à la nouvelle espèce *C. mediterranea* nov. sp.

Habitat, répartition, développement, croissance. Diagnose du nouveau genre et de la nouvelle espèce.

**Schiffner V.** - *Acystis*, eine neue Gattung der Sargassaceen und über einige Algen aus dem Roten Meere [*De « Acystis » genere novo in Sargassaceis deque algis ad Mare Rubrum pertinentibus*]. 1 Taf., Hedwigia, LXXIV, 2, 115-118. Dresden (1934). **b - 1355**

*Acystis heinii* n. sp., *Sargassum zanardinii* n. sp. und *Ectocarpus arabicus*.

**Schreiber E.** - Forschungen an Meeresalgen [*Inquisitiones in Algas marinas*]. Biologe, III, 177-178. München (1934). **b - 1356**

**Schussnig B. & Koth-Bauer E.** - Der Phasenwechsel von *Ectocarpus siliculosis* (Nach Untersuchungen an Materialien aus der Adria und aus dem Mittelmeer) [*De phasibus speciei « Ectocarpus siliculosus » quoad variationes*]. 4 Abb., Oesterr. Bot. Ztschr., LXXXIII, 2, 81-97. Wien (1934). **b - 1357**

Ein Vergleich unter den hier beschriebenen von Rovigno, von Neapel und von der englischen Küste stammenden Arten von *E. siliculosus* zeigt mehrere Verschiedenheiten beim Phasenwechsel auf. Die adriatischen und englischen Arten sind nur diploid, die neapolitanische Form aber während der Wintermonate diploid und während der Sommermonate haploid.

**Setchell W. A.** - The Templeton Crocker Expedition to Western Polynesian and Melanesian Islands, 1933. Some Marine Plants of Southeastern Melanesia [*De expeditione* Templeton-Crocker *ad insulas Polynesias et Melanesias A. 1933. De plantis quibusdam marinis a Melanesia sudorientali provenientibus*]. 4 pls., Proc. Calif. Acad. Sc., XXI, 21, fourth ser., 259-270. San Francisco (1935). **b - 1358**

Importance of the collection for indicating certain distributional relations between the tropical *Algae* of the Indo-Malayan-Papuan archipelagos, bordering the Asiatic and australian tropics, and the Samoan-Tongan-Fijian groups, with their Polynesian and Micronesian affinities. Determination of 31 species belonging to *Myxophyceae, Chlorophyceae, Melanophyceae, Rhodophyceae* and *Monocotyledonae.*

**Setchell W. A.** - Notes on *Microdictyon.* III [*Notae de « Microdictyon »*]. 3 pls., Univ. Calif. Publ. Bot., XIX, 2, 129-139. Berkeley, Calif. (1935). **b - 1359**

Rediscovery of the type species of this alga. Description of four species.

**Skvortzow B. W.** - Diatoms from Calcutta, India [*Diatomeae a* Calcutta *provenientes*]. 1 Pl., Philipp. Journ. Sc., LVIII, 2, 179-192. Manila (1935). **b - 1360**

List and description of two samples of diatoms collected at Calcutta, one of which contains brackish-water forms, belonging to the genera *Diploneis, Navicula, Amphora, Rhopalodia* and *Nitzschia.*

**Sparrow F. K.** - Investigations on Marine Fungi [*Investigationes de boletis marinis*]. Woods Hole Oceanogr. Instit., App. Rep. 1934, 31. Woods Hole, Mass. (1935). **b - 1361**

Some results of an investigation carried out of the fungous flora in the vicinity of the Woods Hole Oceanographic Institution and especially concerned with a determination of the occurrence of fungi in marine waters and an accumulation of data with respect to their morphology, occurrence and distribution. Twenty strictly marine forms have been encountered including several new species and a new genus. They occurred chiefly as parasites and saprophytes of marine Algae and Diatoms.

**Teodoresco E. C.** - Le développement des Algues et la réfrangibilité de la lumière [*De Algarum accretione lucisque refractione*]. 67 fig., 1 Pl., Rev. Gén. Bot., XLVI, 65-87, 172-192, 229-256, 289-320, 360-384. Paris (1934). **b - 1362**

Action des radiations de différente réfrangibilité sur le développement des algues étudiée avec une grande rigueur et précision scientifique pour éviter toute cause d'erreur. Expériences sur *Dunaliella salina, Kirchneriella lunaris*, etc., dont l'A. tire es conclusions suivantes: les algues se développent dans toutes les régions du spectre visible; mais la multiplication cellulaire est plus intense dans la partie la moins réfrangible du spectre (rouge orangé)- Les résultats permettent de mieux comprendre la physiologie des Algues vivant en profondeur dans la mer.

**Tilden J. E.** - The Algae and Their Life Relations: Fundamentals of Phycology [*De Algis earumque correlationibus vitalibus. Fundamenta phycologica*]. 257 figs., 9 pls., 12 tabl., xii-550 pp., Univ. Minnesota Press, Minneapolis-H. Milford. Oxford Univ. Press, London (1935). **b - 1363**

The present work is designed to give a broad outlook over the whole field of phycology, dealing with freshwater and marine forms alike. It contains three introductory chapters on « Some hypotheses concerning the phylogeny of the algae », the « Distribution of marine algae in time and space », and « Classification based on evolutionary development with special reference to pigmentation ». The system of classification is peculiar and higly original: author distinguishes only five principal classes of algae instead of the customary nine.

**Tokida J.** - The Marine *Algae* from Robben Island, Saghalien (A Supplementary Report) [*De Algis marinis a* Robben Island *provenientibus* (*Relatio supplementaris*)]. Bull. School of Fish., IV, 16-26. Sapporo. (1934). **b - 1364**

**Tschudy R. H.** - Depth Studies on Photosynthesis of the Red Algae [*De photosynthesi Algarum rubrarum in profunditatem perspectarum*]. 3 figs., 5 tabl., Amer. Journ. Bot., XXI, 546-556 (Univ. of Washington, Publ. in Oceanogr., suppl. ser.). Lancaster (1934). **b - 1365**

The purpose of this paper is to present evidence that photosynthesis takes place in the red Algae at depths where very little light of the longer wave lengths commonly used in synthesis by other chlorophyll-bearing plants penetrates, and to discuss the various factors which have bearing on plant life at depths where these plants grow.

**Voronikhine N. N.** - Revue des travaux algologiques des auteurs russes, 1930-1931 [*Inspectio operum de algologia ab auctoribus Russicis redactorum*]. (En russe). Bot. Zhourn., XIX, 2, 187-206. Leningrad (1934). **b - 1366**

**Wołoszyńska J.** - Sur une floraison des Cyanophycées dans le Golfe de Gdańsk et sur le développement abondant de la Diatomée *Chaetoceros Eibenii* Grun. [*De Cyanophyceis in Sinu* Gdańsk *deque permagna accretione speciei « Chaetoceros Eibenii »*]. Acad. Pol. Sc. et Lettr., C. R. Mensuels Cl. Sc. Mathém. et Natur., 3, 8. Cracovie (1935).

( — ) S. in Dtsch.: Bull. Int. Acad. Pol. Sc. et Lettr., 1-3, BI, 101-114. Cracovie (1935). **b - 1367**

En été 1934, on observa dans le Golfe de Gdansk le phénomène de la floraison d'eau sur une grande étendue. Les couches supérieures de l'eau contenaient deux Cyanophycées communes dans la Baltique, à savoir: *Nodularia spumigena* et *Aphanizomenon flos-aquae,* accompagnée de *Botryococcus Braunii.* Les couches inférieures étaient composées presque exclusivement des Diatomées et surtout: *Chaetoceros Eibenii* Grun. et de quelques autres espèces.

**Wołoszyńska J.** - Bemerkungen über eine seltene Planktondiatomee des Brackwassers *Attheya decora* West [*Observationes circa diatomeam*

*planctonicam raram « A. decora » ad aquas salmacidas pertinentem*]. 1 Fig., Bull. Int. Acad. Polon, Sc. & Lettres, Cl. Sc. Mathém. & Nat., 1-3 BI. 65-67. Cracovie (1935). **b - 1368**

Beschreibung der *Attheya decora* West. aus der Ostsee, deren Vorkommen in diesem Gebiete vom Vf. zum erstenmal festgestellt worden und von grosser Bedeutung ist, weil es bedeutet, dass das Brackwasser der polnischen Küstengebiete in der Danziger Bucht vom phytoplanktonschen Standpunkte aus nicht so verarmt ist, als man es früher allgemein angenommen hat.

**Yamada Y.** - The Marine *Chlorophyceae* from Ryukyu, especially from the Vicinity of Nawa [*De Chlorophyceis marinis ad* Ryukyu *pertinentibus, praecipue prope* Nawa]. 53 fig., Jour. Fac. Sc., Hokkaido Imp. Univ., ser. V (Bot.), 3, 33-88. Sapporo (1934). **b - 1369**

59 species belonging to 26 genera and 11 families are considered in this paper Besides some new forms there are one new genus, *Pseudodichotomasiphon* with *P. constricta* (Yamada) comb. nov. and two new species, *Acetabularia* (*Polyphysa*) *clavata*, and *Bryopsis ryukyuensis*.

**Yamada Y.** - Enumeration of Marine Algae in Urup Island, especially in the Neighbourhood of Jema [*Enumeratio Algarum marinarum in insula* Urup, *praecipue prope* Jema]. (In Jap.). 20 fig., Rep. Algal Res. Stat., Fac. Sc., Hokkaido Imp. Univ., 3, 1-50. Sapporo (1934). **b - 1370**

List of 49 species belonging to the following groups: *Chlorophyceae*, *Phaeophyceae* and *Rhodophyceae*, with descriptions and bibliography.

**Yamada Y. & Tanaka T.** - Three new Algae from Formosa [*Algae tres novae a* Formosa *provenientes*]. 5 fig., Trans. Nat. Hist. Soc. Formosa, XXIV, 342-349. Taihoku (1934). **b - 1371**

Description with illustrations of *Spermothamnion gladophorae, S. cordicola* and *Plumaria ramosa*.

**Sch.** - Das Absterben des Seegrases und dessen Folgen [*Carentia speciei « Zostera marina » et quae consequuntur*]. Fischmarkt, III, 10, 267-268. Cuxhaven (1935). **b - 1372**

Kurzer Bericht über die Verbreitung in den nordwesteuropäischen Gewässern von einer Erkrankung des breitblättrigen Seegrases, die vielfach zu völligem Absterben der Seegrasbestände führt. Die Ursachen der Krankheit und ihre Folgen sind an Hand von den Arbeiten von H. Blegvad und E. Wohlenberg besprochen (S.: H. Blegvad: « An Epidemic Disease of the Eel Gras (*Zostera marina* L.) in « Rep. of the Danish Biol. Stat. », XXXIX, 1934 und E. Wohlenberg: « Beobachtungen über das Seegras, *Zostera marina* L. und seine Erkrankung im nordfriesischen Wattenmeer », in « Nordelbingen. Beiträge zur Heimatforschung in Schleswig–Holstein, Hamburg und Lübeck », XI, 1935; Velstholst. Verl., Heide).

# PALAEOBIOLOGIA

**Alberici E. & Tamini E.** - Contributo allo studio dei Molluschi del Quaternario marino di Rodi (Egeo) [*Contributio in studenda Mollusca aetatis quaternariae marinae insulae Rhodos*]. 1 tav., Rend. R. Ist. Lomb. Sc. Lett., LXVIII, 1/5, 213-228. Milano (1935). **b - 1373**

In questo studio viene esaminata una fauna fossile proveniente dalla Conca di Candillì, nel tratto compreso tra la sella, le quote 123 e 140 del Mufti Dagh e la testata del fosso immediatamente a nord di Cara Osman Dagh contrassegnato come « strato 210 » e costituita da 94 specie di Gasteropodi e 66 specie di Lamellibranchi. Tale strato può essere riferito alla parte superiore del Cambriano. Tra i fossili studiati, 73 forme di cui 39 di Gasteropodi e 34 di Lamellibranchi, risultano nuove per il Quaternario marino di Rodi.

**Alloiteau J.** - Sur la nécessité de l'étude de sections pour la détermination des Polypiers du Crétacé [*De studendis sectionibus ad polyparios aetatis cretaceae determinandos*]. C. R. Acad. Sc., CCI, 3, 232-234. Paris (1935). **b - 1374**

Description de deux formes nouvelles portant la détermination *Trochosmilia inconstans* de From, mais n'ayant en commun que l'aspect général et s'éloignant toutes deux des *Trochosmilia*. Nécessité d'une nouvelle systématique.

**Androsova V. P.** - The Microfauna of the North Dwina Post-Pliocene (on the History of the North Dwina Post-Pliocene) [*De microfauna in Pliocene regionis septemtrionalis* Dwina]. 4 tabl., 17 fig., Trans. Inst. Mar. Fish. & Oceanogr., Geol. Works on Novaya Zemlya, I, 110-132. Leningrad (1935). **b - 1375**

Method of research. Many important conclusions have been drawn from this study especially as to the homogeneity of the gray-green clay layers determining the period of sea-transgression and its limits; the high salinity of the former sea-basin, lack of carbon dioxide accumulations near the bottom owing to the shallowness of the basin. Predominating species of *Foraminifera*: *Cassidulina crassa* d'Orb., *C. laevigata* d'Orb., *Nonionina depressula* Wal. et Jac. and *Polystomella striatopunctata* Ficht. et Moll.

**Arambourg C.** - Observations sur quelques poissons fossiles de l'ordre des Halécostomes et sur l'origine des Clupéidés [*Observationes circa pisces fossiles ad Halecostomata pertinentes atque etiam circa originem Clupeidarum*]. C. R. Acad. Sc., CC, 25, 2110-2112. Paris (1935). **b - 1376**

Dans la présente note l'A. en se servant des résultats de son étude récente de poissons provenant du Crétacé de la côte occidentale d'Afrique, comble le vide apparent qui sépare les Leptolépidés des Clupéidés et montre le polyphylétisme et la différenciation précoce de ces derniers. Il décrit la famille des Clupéidés comme l'aboutissement d'une série de rameaux très précocément differenciés et dont chacun a parcouru, indépendamment des autres, les stades ganoïdes halécostomes et téléostéens.

L'A. a pu constater la continuité du phénomène évolutif entre les représentants de deux groupes zoologiques distincts: Ganoïdes et Téléostéens.

**Argamakova V.** - Ueber einige Ophiuren von der Ostküste Sachalins [*De Ophiuroideis ad litus orientale* Sakhalin *pertinentibus*]. (In Russ. u.

Dtsch.). C. R. Acad. Sc. U. R. S. S., III, 5/6, 348-352. Léningrad (1934). **b - 1377**

Nach einigen allgemeinen Betrachtungen über die Reste von fossilen Ophiuren, deren Erhaltungszustand gewöhnlich unbefriedigend ist, die Eigentümlicheit ihrer Evolution und die Ophiure der Gegenwart, gibt Vf. eine kurze Beschreibung von *Ophiocten miocaenicum* n. sp., *Ophiocten* sp. und *Amphiophiura aenigma* n. sp., welche in den miozän-tufogenen Ablagerungen an der Ostküste der Insel Sachalin entdeckt worden sind.

**Arnold B. W. & Clark H. L.** - Some additional Fossil Echini from Jamaica [*Aliae Echinidae fossiles Jamaicenses*]. 5 pls., Mem. Mus. Comp. Zool. Harvard Coll., LIV, 2, 139-156. Cambridge U. S. A. (1934). **b - 1378**

Supplementary report to that published in 1927 (this rev. L, I.) on a large collection of fossil Sea-Urchins (Cenozoic) made in Jamaica. One new genus, *Homeopetalus*, and 13 new species are described.

**Ashby E. & Cotton B. C.** - Descriptions of Fossil Chitons from Europe in the Ashby Collection at the South Australian Museum [*De descriptis Chitonidis fossilibus europaeis ad collectionem* Ashby *pertinentibus in Museo Sudaustraliensi*]. Rec. South Austral. Mus. V, 3, 389-394. Adelaide (1935). **b - 1379**

Description of 13 species, all from Eocene and Miocene beds named here.

**Bassler R. S. & Kellett B.** - Bibliographic Index of Paleozoic *Ostracoda* [*Ostracoda palaeozoica. Index bibliographicus*]. 24 figs., Geol. Soc. Amer., Spec. Pap., 1, xiii-500 pp., Washington D. C. (?) (1934). **b - 1380**

Entire bibliography and synonymy of the genera and species, with locality and horizon, of the world's known *Ostracoda*, including about 2380 species and varieties grouped in 164 genera or subgenera and 17 families. The work is completed by a description and illustration of the morphology of the Ostracods, of the methods of study, the orientation of the valves, and criteria of classification.

**Billings M. P. & Cleaves A. B.** - Brachiopods from Mica Schist, Mt. Clough, New Hampshire [*Brachiopoda in schistis micaceis montis* Clough (New Hampshire)]. 2 figs., Amer. Journ. Sc., XXX, 180, 530-536. New Haven, Conn. (1935). **b - 1381**

Fossils from crystalline schists are rare, but two brachiopods have been found in high-grade (katazonal) metamorphic rock on Mt. Clough, New Hampshire. One of the specimens has been identified by the A. A. as *Spirifer* sp. ind. The brachiopods dealt with in this paper constitute one line of evidence, along with other data, to demonstrate that some of the high-grade metamorphic rocks of western New Hampshire are of Devonian age.

**Blanc A. C.** - Stratigrafia del canale Mussolini nell'Agro Pontino [*De stratigraphia canalis* Mussolini *in Agro Pontino*]. Atti Soc. Tosc. Sc. Nat. Proc. Verb., XLIV, 2, 52-56. Pisa (1935). **b - 1382**

Viene segnalata e sommariamente descritta la stratigrafia posta in evidenza dalla escavazione del Canale Mussolini nell'Agro Pontino (prov. di Littoria), che comprende: uno strato inferiore a fauna marina (con *Eastonia rugosa*, Chemn.), e strati sovrapposti di torbe, sabbie ed argille, contenenti relitti di grandi mammiferi quaternari.

**Blanc A. C. & Tavani G.** - Una fauna marina nelle breccie ossifere dei monti d'oltre Serchio [*De fauna marina in glareis ossiferis montium trans flumen* Serchio]. Atti Soc. Tosc. Sc. Nat. Proc. Verb., XLIV, 2, 49-51. Pisa (1935). **b - 1383**

Viene segnalata la presenza di una fauna marina inclusa in breccie ossifere, presso Vecchiano (Monti d'oltre Serchio). Essa costituisce l'indizio dell'esistenza di una linea di riva marina, geologicamente recente di oltre 68 metri più alta dell'attuale. I sedimenti di questo mare, altrove completamente dilavati sono stati trasportati da acque superficiali entro le spaccature dei calcari, ove si sono cementati nelle breccie.

**Brough J.** - On *Lekanichthys howsei*, a new dorypterid Fish from the Permian [*Species « Lekanichthys howsei » piscis novus dorypteridis a strato permianico proveniens*]. 1 pl., 2 figs., Ann. and Magaz. Natur. Hist., XIV, 81, 253-266. London (1934). **b - 1384**

**Bryant W. L.** - New Fishes from the Triassic of Pennsylvania [*De novis piscibus ad stratum triassicum Pensilvanicum pertinentibus*]. 8 pls., Proc. Amer. Phil. Soc., LXXIII, 5, 319-326. Philadelphia (1934). **b - 1385**

*Carinacanthus jepseni* n. sp. and *Coelacanthus newarki* n. sp.

**Bryant W. L. & Ruedemann R.** - The Fish Fauna of Beartooth Butte, Wyoming. Nº 2, 3. The Heterostraci and Osteostraci. Appendix: Eurypterids from the Lower Devonian of Beartooth Butte, Wyoming, by Ruedemann R. [*De fauna ichthyca ad* Beartooth Butte, Wyoming *pertinente. Heterostraca et Osteostraca. Appendix: « Eurypteridae » a strato provenientes quod supra memoravimus*]. 18 figs., 50 pls., Proc. Amer. Phil. Soc., LXXII, 5, 285-314 (1933); LXXIII, 3, 127-167 (1934). Philadelphia (1933-34). **b - 1386**

The work no. 2 covers the *Acanthaspida* and *Elasmobranchia* of the Lr. Devonian Beartooth fish-lens with a special discussion on the presence of true jaws and teeth in the *Arthrodira*. Emended descriptions and several new spp. Number 3 contains supplementary notes on *Heterostraca*. Appendix: *Pterygotus princetonii* n. sp.

**Canu F. & Bassler Ray S.** - New Species of Tertiary Cheilostome *Bryozoa* from Victoria [*Bryozoa nova tertiaria a Victoria provenientia*]. 9 pl., Smiths. Miscell. Collect., XCIII, 9, 1-54. Washington (1935). **b - 1387**

Description, occurrence and holotypes of about 90 new species.

**Chabanaud P.** - Les Gonorhynchidés fossiles du Muséum de Marseille et du Musée d'Aix-en-Provence [*De Gonorhynchidis fossilibus in Museo Massiliensi Museoque* Aix-en-Provence]. 2 pl., Ann. Mus. Hist. Natur. Marseille, XXVI, 5-16. Marseille (1934). **b - 1388**

Nouvelles observations sur les spécimens de *Colpopholis squamosus* (Blainville) provenant des calcaires gypsifères rupéliens d'Aix-en-Provence. Tout en modifiant certaines de ses conclusions précédentes l'A., par ces observations, confirme sa propre opinion, d'accord avec celle de Woodward, mais contraire aux vues de Cocquerell et de Jordan sur l'homogénéité de la famille des Gonorhynchidés. Analyse des spécimens *Colpopholis squamosus* Blainville (Chabanaud emendavit).

**Chapman F.** - A Lower Cretaceous Brittlestar from Queensland [*Species nova ad Echinodermata cretacea pertinens a* Queensland *prove-*

*niens*]. 1 pl., Proc. R. Soc. Victoria, n. ser., XLVI, 2, 195-199. Melbourne (1934). **b - 1389**

This paper deals with the new species *Ophiacantha* (*Ophioglyphoida*) Fosteri.

**Chenevière E.** - Note sur le dépôt de terre à Diatomées fossiles (Miocène supérieur) récemment découvert près de Szurdokpuspoki [*De terrosis depositis Diatomeas fossiles continentibus* (*Miocene superiore*) *nuper inventis apud* Szurdokpuspoki]. 1 carte, 2 pl. h. t., Bull. Soc. Française Microsc., III. 1, 33-36. Paris (1934). **b - 1390**

Réimpression d'un article paru dans Földtani Közlöni LXIII, 216-218, Budapest (1933), à laquelle ont été ajoutées, ici, deux planches hors texte et une carte. Ce dépôt marin n'est pas riche en Diatomées comme quantité mais très riche en espèces. Liste des diatomées trouvées jusqu'ici (100 à peu près).

**Chenevière E.** - Sur un dépôt fossile marin à Diatomées situé à Kamischev (Russie centrale) [*De deposito quodam fossili marino Diatomaeas continente in* Kamischev (*Russia centrali*)]. 4 pl. h. t., Bull. Soc. Franç. Microsc., III, 3, 103-107. Paris (1934). **b - 1391**

Ce dépôt est remarquable parce qu'il contient les mêmes espèces que celles trouvées dans la presqu'île du Jütland et à Simbirsk, deux localités également très éloignées de Kamischev. Description préliminaire de neuf Diatomées dont deux sont nouvelles: *Kittonia granulata* et *K. tripedia*.

**Cisneros (de) D. J.** - Acerca del fósil encontrado en el Domeriense del Algayat [*De fossile reperto in Domeriano regionis* Algayat]. 1 fig., Bol. Soc. Españ. Hist. Nat., XXXV, 8, 443-444. Madrid (1935). **b - 1392**

Rectificación de la classificación del fósil del género *Ptychoceras* encontrado en el horizonte de calizas ferruginosas con Amonites y Braquiópodos, forma nó riferible a género conocido.

**Cisneros (de) D. J.** - Ammonites y Belemites (continuación) [*Ammonites et Belemnites*]. 12 fig., Ibérica, XLIV, 1082, 93-96. Barcelona (1935). **b - 1393**

Continuación del articolo publicado en el vol. XLIII, 1067, p. 232. Otras formas de conchas: *Crioceras*, *Ancyloceras*, *Scaphites*, *Macroscaphites*, *Hamites*, *Hamulina*, *Ptychoceras*, *Baculites*, *Toxoceras*. El crecimiento de la concha. Espiral logaritmica. (Continuará).

**Cobbold E. S.** - A new Genus of the *Trilobita* and a New Species of the *Conchostraca* from the Cambrian of the Carteret Region, N. W. France [*Trilobita. Genus novum cum nova specie ad Conchostraca pertinente a strato Cambriano proveniente regionis* Carteret (*in Gallia nordoccidentali*)]. 1 pl., Ann. and Magaz. Natur. Hist., XV, 87, 381-392. London (1935). **b - 1394**

*Bigotina* n. gen. (*Trilobita*) with the type. *B. bivallata* n. sp., *Indianites caenensis* n. sp. (*Conchostraca*).

**Cobbold E. S. & Pocock R. W.** - The Cambrian Area of Rushton (Shropshire) [*De regione Cambriana in* Rushton (Shropshire)]. Phil. Trans. R. Soc., ser. B, CCXXIII, 305-409. London (1934). **b - 1395**

101 species are described in this paper, 29 of which are new to science. The genera *Rushtonia*, an annelid and *Agaso*, a subgenus of the Trilobite *Liostracus* are new.

**Cooper G. A.** - *Oligorhynchia*, a New Ordovician (Chazy) Brachiopod [« *Oligorhynchia* », *ex Ordovicianis Brachiopodis*]. 14 figs., Amer. Journ. Sc., XXIX, 169, 48-53. New Haven. Conn. (1935). **b - 1396**

Description and diagnosis of *Oligorhynchia*, n. gen., *O. subplana*, n. sp., and *O. subplana* var. *gibbosa*, n. var.

**Cope F. Wolverson** - *Airtonia*, a new Brachiopod Genus from the lower Carboniferous of Yorkshire, with Notes on Replacement of Shell Substance by Quartz [« *Airtonia* » *novum brachiopodorum genus e stratis carboniferis inferioribus proveniens, regionis* Yorkshire]. 14 figs., 1 pl., Ann. and Magaz. Nat. Hist., XIV, 80, 273-289. London (1934). **b - 1397**

*Airtonia* (*Chonetinae, Productidae*), type *A. hudsoni* lower Airtone limestone.

**Cotton B. C. & Hooper Woods N.** - The Correlation of Recent and Fossil *Turritellidae* of Southern Australia [*Correlationes inter Turritellidas recentes et Turritellidas fossiles in Australia merid.*]. 7 figs., 1 table, Rec. South Austral. Mus., V, 3, 369-387. Adelaide (1935). **b - 1398**

On account of the generic and specific confusion prevailing specially with regard to the fossils an effort has been made here to clarify some of the difficulties in identifying and determining both recent and fossil species. Table showing comparison and description of subspecies of *Turritella acricula* Tate. New subspecies and species introduced.

**Cuvillier J.** - Répartition et valeur stratigraphique de *Nummulites uroniensis* A. Heim (de la Harpe) en Egypte et dans le bassin méditerranéen [*Partitio et aestimatio stratigraphica speciei* « *Nummulites uroniensis* » *in Aegypto et sinu Mediterraneo*]. C. R. Acad. Sc., CC, 6, 483-485. Paris (1935). **b - 1399**

**Davies A. M.** - Tertiary Faunas. A Textbook for Oilfield Palaeontologists and Students of Geology. II. The Sequence of Tertiary Faunas [*De fauna aetatis tertiariae. Liber manualis ad usum palaentologorum eorumque qui geologiae student. II. Series ad faunas tertiarias pertinentes*]. Maps, 28 figs., 252 pp., Thos. Murby and Co. London (1934). **b - 1400**

Vol. I, which is to be systematic, is preceded by Vol. II. 1. Geographical distribution of animal life, both marine and continental. 2. Fossils, principally Mammals, Mollusks, Brachiopods, and Echinoids. 3. Early Tertiary Faunas. 4. Later Tertiary.

**Decker C. E.** - The Graptolites of the Simpson Group of Oklahoma [*De Graptolitis ad cumulum* Simpson *pertinentibus in* Oklahoma]. Proc. Nat. Acad. Sc., XXI, 5, 239-243. Washington D. C. (1935). **b - 1401**

Former publications. Classification of Graptolites. Description of spp.: *Didymograptus artus* Elles & Wood, *Diplograptus* (*Amplexograptus*) *Maxwelli* Decker n. sp.

**Deflandre G.** - Les Discoastéridés, microfossiles calcaires incertae sedis [« *Discoasteridae* » *microfossiles calcariae, incertae sedis*]. 31 fig., Bull. Soc. Franç. Microsc., III, 2, 59-67. Paris (1934). **b - 1402**

Les *Discoasteridae* sont connues déjà depuis un siècle mais très peu étudiées. Théories de Tan Sin Hok et d'Ehrenberg sur leur origine; différentes espèces et variétés distinguées par Tan Sin Hok. L'existence ou non-existence d'un noyeau central chez plusieurs formes. Appendice sur un travail de Ed. Paréjas concernant quelques *Actiniscus*.

**Deflandre G.** - Considérations biologiques sur les microorganismes d'origine planctonique conservés dans les silex de la craie [*Considerationes biologicae de microrganismis planctonicis in silice cretacea servatis*]. 11 fig., 5 pl., Bull. Biol. Fr. et Belge, LXIX, 213-244. (1935). **b - 1403**

Dans le rognon de silex du bassin de Paris et de Provence, l'A a trouvé Foraminifères, Radiolaires, Flagellés, etc., très bien conservés. Considérations sur l'évolution des Dinoflagellés.

**Doncieux L. & Cuvillier J.** - Les Foraminifères du Lutétien inférieur dans le sud du désert arabique [*De Foraminiferis ad aetatem Lutetianam inferiorem pertinentibus in regione meridionali deserti arabici*]. C. R. Acad. Sc., CC, 22, 1873-1874. Paris (1935). **b - 1404**

Analyse des Foraminifères trouvés dans un même dépôt, dont les uns appartiennent au début de l'Eocène moyen, les autres au Lutétien supérieur: *Alveolina oblonga* d'Orb., *Nummulites* cf. *irregularis* de la Harpe, *N. discorbina* Schl., *N. gizehensis* Forsk., *N.* aff. *Lucasi* d'Arch.

**Ehrmann F. & Flandrin J.** - Au sujet des grandes Lépidocyclines de l'Eocène des Beni-Afeur (S. de Taher, département de Constantine) [*De magnis Lepidocyclinis ad aetatem eocenicam pertinentibus in* Beni-Afeur]. C. R. Acad. Sc., CC, 2, 152-154. Paris (1935). **b - 1405**

Etant donné que l'examen de quelques échantillons récoltés à la base des dépôts numidiens de Taher, au sud de Djidjelli, avait permis d'y reconnaître *Nephrolepidina marginata* Michl. et *Eulepidina dilatata* Michl., qui sont des Foraminifères caractéristiques de l'Oligocène supérieur et même du Miocène inférieur, et que la présence de ces Foraminifères posait un problème qui pouvait se résoudre soit par le rajeunissement du Numidien, soit par le recul dans le temps de l'apparition des Lépidocyclines, les A. A. ont entrepris une étude qui devait conduire au choix de l'une ou de l'autre de ces deux solutions et dont il rend compte dans la présente note.

**Elias K. M.** - Cephalopods of the Pierre Formation of Wallace County, Kansas, and Adjacent Area [*De Cephalopodis ad formationem* Pierre *pertinentibus in* Wallace County *et propinquitatibus*]. Pls., Univ. Kansas Bull., XXI, 9, 289-363. Lawrence, Kansas (1933). **b - 1406**

3 new species and 4 new varieties of the Ammonites of the genera *Scaphites* and *Bacculites* are described.

**Fallot P. & Dubar G.** - Sur la présence du Lias à *Rhynchonellina* dans le Rif espagnol [*De* Lias *quod « Rhynchonellina » continet in* Rif *hispanico*]. C. R. Acad. Sc., CC, 2, 154-156. Paris (1935). **b - 1407**

Les résultats démontrent que le genre *Rhynchonellina* qui était connu pour s'être propagé au Lias dans le domaine alpino-dinarique, a dépassé les étroites limites qu'on lui assignait; son extension à l'extrémité de la Méditerranée occidentale et son abondance dans la dorsale calcaire du Rif, indiquent, à l'aube du Lias, d'étroites relations fauniques et paléogéographiques entre la chaîne du Rif et le sillon nord sicilien et dinarique de la Thétys secondaire.

**Floridia G. B.** - Contributo alla conoscenza stratigrafica del neogene della Cirenaica [*Contributio in stratigraphiam aetatis neogenicae Cyrenaicae cognoscendam*]. Atti Soc. Ital. Sc. Nat. e Mus. Civ. St. Nat., LXXIV, 1/2, 19-42. Milano (1935). **b - 1408**

Dallo studio di alcune località fossilifere della Cirenaica risulta evidente la presenza dell'Oligocene e del Miocene e viene ad essere ampliata la diffusione geografica dell'*Alveolina Bradyi* Silv., riscontrata con certezza in 16 località. Infine, sono state determinate con sicurezza 78 specie fra Gastropodi e Lamellibranchi di cui 37 risultano nuove per la Cirenaica.

**Foerste A. F.** - Silurian Cyrtoconic Cephalopods from Ohio, Ontario, and other Areas [*De Cephalopodis silurianis cyrtoconicis ex* Ohio *provenientibus aliisque regionibus*]. 14 pls., Denison Univ. Bull. Jour. Sc. Lab., XXIX, 2, 107-193. Granville, Ohio (1934). **b - 1409**

5 new genera are erected with about 33 new spp. and 7 new combinations.

**Fromaget J.** - Sur la découverte de nouveaux témoins de Trias supérieur marin dans le synclinal du Haut-Laos [*De inventa nova testatione aetatis Triassicae superioris marinae in synclinale* Haut-Laos]. C. R. Acad. Sc., CC, 24, 2027-2028. Paris (1935). **b - 1410**

Il s'agit de trois gisements, disposés le long d'une étroite bande recouverte par les alluvions du Nam Houng, et de son affluent le Nam La, dans les vallées desquels ils affleurent. Liste des fossiles contenus dans les sédiments de mer profonde.

**Frost G. A.** - Otoliths of Fishes from the lower Tertiary Formations of southern England. 4. *Scleroparei, Percomorphi*. 5. *Anacanthini, Heterosomata, Ostariophysi* [*Otholiti piscium ad formationes tertiarias inferiores Angliae meridionalis pertinentium*]. 1 pl., Ann. and Magaz. Natur. Hist., XIV, 82, 442-446; 83, 500-505. London (1934). **b - 1411**

The following forms are new: *Otolithus* (*Trigla*) *ovatus*, *O.* (*Ophidiidarum*) *planus*, *O.* (*O.*) *sagittalis*, *O.* (*O.*) *symmetricus*, *O.* (*O.*) *sheppeyensis*, *O.* (*O.*) *rugosus*, *O.* (*O.*) *elegans*, *O.* (*Gadus*) *subnotus*, *O.* (*G.*) *rectus*, *O.* (*Macrurus*) *minimus*, *O.* (*Phycis*) *gracilis*, *O.* (*Bothus*) *contortus*, *O.* (*Pleuronectidarum*) *tenuis*, *O.* (*Solea*) *bartonensis*, *O.* (*Arius*) *planus* and *O.* (*A.*) *aequus*.

**Gardner J. & Bowles E.** - Early Tertiary Species of Gastropods from the Isthmus of Tehuantepec, Mexico [*Gastropoda. Species tertiariae ad Isthmum* Tehuantepec (*in Mexico*) *pertinentes*]. 13 fig., Journ. Washington Acad. Sc., XXIV, 6, 241-248. Washington (1934). **b - 1412**

Paralellism to the middle Eocene (Donimgiene) fauna from the Simi Valley of S. California. *Eocernina* n. sect. of *Cernina*, type *Natica hannabali* Dickerson including *Cernina* (*E.*) *chiapasensis* n. sp., *Amaurellina malinchae*, *A. cortezi*; *Volutocristata* n. gen. with *V. chiapasensis* n. sp. and *V. lajollaensis* n. sp.

**Girty G. H.** - New Carboniferous Invertebrates 4. [*Invertebrata nova ad strata carbonifera pertinentia*]. 29 figs., Journ. Washington Acad. Sc., XXIV, 6, 249-266. Washington (1934). **b - 1413**

*Brachiopoda*: *Cryptacanthia ? robusta* n. sp., Permian formation, Texas; *Gastropoda*: *Pleurotomaria worthenioides* n. sp., Bloyd shale, Arkansas, *Euconospira hermosana* n. sp., *Pleurotomaria rockymontana* n. sp., *Orestes ? reticulatus* n. sp., *O. ? quadrilineatus* n. sp., and *Pleurotomaria aspera* n. sp. Mc Coy formation of Roth, Colorado, *P. woolseyana* n. sp. and *P. millegranosa* n. sp. Bloyd shale.

**Götzinger G. & Becker H.** - Neue Fährtenstudien im ostalpinen Flysch [*Studia nova ex vestigiis fossilibus in formatione* Flysch *Alpium orientalium*]. 13 Abb., Senckenbergiana, XVI, 2/3 77-94. Frankfurt a. M. (1934). **b - 1414**

Ueber das Auftreten von Kriechspuren und Fährten und ihre Abhängigkeit von der Sedimentation: Lebensspuren auf der Oberseite und auf der Unterseite von Gesteinsschichten (Entstehung auf der Oberfläche eines (tonigen) Meeressediments, Entstehung innerhalb eines Meeressedimentes). Das Vorkommen von Kriechspuren und Fährten in den einzelnen Altershorizonten des Wienerwaldflysches.

Gastropoden- Fährten im Greifensteiner Sandstein und ihre Deutungen. Ueber die Entstehung und Deutung mancher Hieroglyphen. Eine neue Anneliden- Fährte aus der Oberkreide. Einiges über Kriechspuren in anderen Flyschgebieten.

**Gugenberger O.** - Die *Cardita*-Schichten von Launsdorf in Mittelkärnten und ihre Fauna. V. Lamellibranchiaten, 1. Teil [*Cardita, Strata in* Launsdorf *in Carintia centrali eorumque fauna. V. Lamellibranchiata*]. 1 Taf. a. T., Sitz. ber. Akad. Wiss. Wien, CXLIV, 5/6, 231-252. Wien (1935). **b - 1415**

Die hier beschriebene Sammlung enthält 40 Genera, unter welchen *Hoernesiella* n. gen., *Paraviculidae* n. fam. und 26 neue Spezies sind.

**Hägg R.** - Die Mollusken und Brachiopoden der schwedischen Kreide. 2: Kullemölla, Lyckås, Kåseberga und Gräsryd [*Mollusca et Brachiopoda ad formationem cretaceam Suetiam pertinentia*]. 10 pls., Sveriges Geol. Unders., Årsber. f. år. 1934 Ser. C, 385, 94 pp. Stockholm (1935). **b - 1416**

**Henrici H.** - Foraminiferen aus dem Eozän und Altmiozän von Timor [*Foraminifera aetatis eocenicae et miocenicae veteris insulae* Timor]. 4 Taf., Palaeontographica, IV, 1-56. Stuttgart (1934). **b - 1417**

Uebersicht der verschiedenen Fundorte und deren Fauna, stratigraphische Einteilung, palaeontologische Beschreibung des Materiales. Die folgenden Formen sind neu: *Camerina bonleoensis, C. crasseornata* und *Fasciolites amarassiensis.*

**Hill D.** - The lower Carboniferous Corals of Australia [*Corallia e stratis carboniferis inferioribus Australiae*]. Map, 5 pls., 7 figs., Proc. Roy. Soc. Queensland, XLV, 63-114. Brisbane (1934). **b - 1418**

Brief summary of our present knowledge of the lr. Australian carboniferous stratigraphy. Revision of several old spp. and description of about 8 new spp.

**Isberg O.** - Studien über Lamellibranchiaten des Leptaenokalkes in Dalarna: Beitrag zu einer Orientierung über die Muschelfauna im Ordovicium und Silur [*Studia de Lamellibranchiatis e calcare leptaenico* e Dalarna *provenientibus. Contributio in rationem instituendam quoad faunam Molluscologicam in Ordoviciano et Siluriano*]. 9 Abb., 32 Taf., 428 S., Lund (1934). **b - 1419**

Der vorliegende Band enthält die ausführliche Beschreibung einer vom Vf. seit 1916 angefangenen Sammlung und eines Materials, das aus anderen schwedischen Sammlungen stammt. Vf. beschreibt 180 Arten von Bivalven, von denen alle ausser 3 neu sind, und 7 Arten ohne Namen. Das Werk stellt eine der ausführlichsten Arbeiten dar, welche in der letzten Zeit über palaeozoische Pelezypoden unternommen worden sind.

**Jackson R. T.** - Report on the Fossil Echinoderms [*Relatio de Echinodermatis fossilibus*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College 1934-1935, 45-46. Cambridge U. S. A. (1935). **b - 1420**

Revisional work of the Louis Agassiz collection of casts of fossil Echini received in 1859. Gifts: different fossil *Echinoneus, Dendraster* and *Hyattechinus.*

**Jacquet F. & Monod T.** - Sur le Primaire fossilifère du Sud de l'Adrar mauritanien [*De terreno primario in regione meridionali* Adrar *mauretanici*]. C. R. Acad. Sc., CCI, 20, 908-909. Paris (1935). **b - 1421**

Analyse des différents horizons fossilifères qui s'étendent de l'Ordovicien au Devonien supérieur. Différentes espèces de *Spirifer, Productus, Phillipsia* et *Endothyra.*

**Kellogg R.** - A New Cetothere from the Model Formation at Los Angeles, California [*Cetaceus novus ad formationem* Model *pertinens in* Los Angeles (California)]. Figs. & pls., Carnegie Inst., Publ. 447, Washington (1934). **b - 1422**

Description of *Mixocetus elysius* (n. gen., nov. sp.) from the lower Upper Miocene.

**Kellogg R.** - The Patagonian Fossil Whalebone Whale, *Cetotherium moreni* (Lydekker) [*De balaena fossili patagonica « Cetotherium moreni »*]. Figs & pls., Carnegie Instit., Publ. 447. Washington (1934). **b - 1423**

The specimen described in this paper belongs to the lower Miocene of Patagonia.

**Kobayashi F.** - On the Occurrence of Xiphosuran Remains in Chosen (Korea) [*Xiphosura. Relicta in* Chosen (Korea)]. 1 pl., Jap. Journ. Geol. & Geogr., Trans., X, 3/4, 175-182. Tokyo (1933). **b - 1424**

Description of *Anthracomya* (?) *jidoensis* n. sp., *Euproops orientalis* n. sp. and other spp. Note on the xiphosuran classification. Generic reference of the present species.

**Kobayashi T.** - Middle Cambrian Fossil from Kashmir [*Fossilia ad mediam aetatem Cambrianam pertinentia in* Kashmir]. 1 pl., Amer. Journ. Sc., XXVII, 160, 295-302. New Haven, Conn. (1934). **b - 1425**

Scientific results of the Yale North India Expedition: Reports on Himalayan stratigraphy. Description of a collection of middle Cambrian fossils discovered in the northwestern portion of the Kashmir Valley, containing three species of Trilobites, i. e. *Agnostus* cfr. *rakuroensis* Kobayashi, *Tonkinella breviceps* Kobayashi and *Anomocarella memor* (Reed), in addition to fragments of linuloids and hyolothoids.

**Kobayashi T.** - Einige neue triadische Bivalven aus der Innenzone Südwest Japans [*Species novae bivalves triassicae ab interiore zona Japoniae sudoccidentalis*]. 1 pl., Jap. Journ. Geol. & Geogr., Trans., XII, 1/2, 27–32. Tokyo (1935). **b - 1426**

Nach einer kurzen Beschreibung der vier verschiedenen fossilienführenden Zonen in der Innenzone des Südwestlichen Japans, gibt Vf. die Diagnosis von den folgenden neuen Formen: *Pseudomonotis subcycloidea* sp. n., *Daonella yoshimurai* sp. n., *Edentula ozawai* sp. n., *Pecten fujimotoi* sp. n.

**Kobayashi T.** - A Question on the Wuting Fauna of Manchuria [*Quaestio de fauna* Wuting *in* Manchuria]. (In Jap., Engl. Rés.), Journ. Geol. Soc. Japan, XLII, 114-121. Tokyo (1935). **b - 1427**

The A. criticizes some opinions of Ryuji Endo on the Wuting formation, a shell facies comprising twelve species of Brachiopods, Gastropods, Cephalopods, and Trilobites listed here.

**Kolosváry (von) G.** - Ueber verschiedene Unregelmässigkeiten aus der paleontologischen Sammlung des Herrn Gustav Stein und des Verfassers [*De irregularitatibus collectionis palaento-*

*logicae ad* G. Stein *et ipsum Auctorem pertinentis*]. Fol. Zool. & Hydrobiol., VIII, 1,38-40. Riga (1935). **b - 1428**

I. Teil: Asymmetrische Erscheinungen an Echinoideen: *Scutella vindobensis* Lbe., *Echinolampas hemisphaericus* Lam. und *Clypeaster* sp. indet.

**Kovács L.** - Eine Ammonitenfauna aus den Mittelliasschichten des Kávás Berges im Bakony-Gebirge [*Ammonoidea a stratis provenientia aetatis Liassicae mediae montis* Kávás *in montibus* Bakony]. (Ung. Text, Dtsch. Rés.). 1 Taf., Földtani Közlöny (Geol. Mitt.), LXIV, 7-9, 241-265. Budapest (1934). **b - 1429**

Folgende neue Arten und Varietäten sind gefunden: *Rhacophyllites Telegdi Rothi* nov. sp., *Phylloceras tenuistriatum* Mgh. var. *intermedia*, nov. var., *Ph. dubium*, Fuc. var. *medioliasica* nov. sp., *Lytoceras angustoumbilicatum* nov. sp., *L. kávásense* nov. sp., *Amblycoceras planicostatum* Sow., var. *Sziládyu* nov. var.

**Lambert J.** - Sur quelques échinides fossiles de Valence et d'Alicante communiqués par M. le Prof. Darder Pericàs [*De Echinidis fossilibus Valentiae et Lucentiae a Prof.* Darder Pericàs *relatis*]. 2 pl. Bol. Soc. Españ. Hist. Nat., XXXV, 7, 359-371. Madrid (1935). **b - 1430**

Dans le présent ouvrage l'A. mentionne seulement les espèces des échinides de Valence et d'Alicante déjà connues, mais, par contre, présente quelques observations sur celles dont il importe, soit de préciser le niveau stratigraphique, soit de discuter la détermination, et donne la description des suivantes espèces nouvelles: Crétacé: *Balanocidaris darderi* Lamb. n. sp., *Pseudopyrina darderi* Lamb. sp. n., *Echinocorys darderi* Lamb. n. sp. Tertiaire: *Echinolampas visedoi* Lamb. n. sp., *Linthia darderi* Lamb. n. sp.

**Leonardi P.** - Il Trias Inferiore delle Venezie [*De aetate Triassica inferiore in regione Veneta*]. 3 fig., 8 tav., 13 pp., Soc. Cooper. Tipogr., Padova (1935). **b - 1431**

Cenni generali sulla fauna e rassegna delle località fossilifere principali; descrizione paleontologica degli Anellidi (*Spirorbis*), Brachiopodi (*Lingula*), Molluschi (Lamellibranchi, Gasteropodi, Cefalopodi) ed Echinodermi (Ofiuroidi e Asteroidi); relazioni tra la fauna Werfeniana delle Venezie e quelle della formazione a *Bellerophon* e dell'Anisico. Le faune marine del Trias inferiore.

**Licharev B.** - On Some New Genera of Upper Palaeozoic *Brachiopoda* [*De novis ex Brachiopodis generibus ad aetatem palaeozoicam inferiorem pertinentibus*]. (In Russ. & Engl.). C. R. Acad. Sc., U. R. S. S., I, 4, 210-214. Léningrad (1934). **b - 1432**

Short diagnosis of several new genera of Upper Palaeozoic *Brachiopoda* established by the author while preparing for publication a monograph on hand of a collection gathered at Darvas. The described forms are as follows: *Pseudoharttina* gen. nov., *P. ovalis* gen. et sp. nov., *Paeckelmanella* subgen. nov., genoholotype: *Spirifer dieneri* Tschernyschew, *Darvasia* gen. nov., *D. edelsteini* gen. et sp. nov., *Neophricadothyris* gen. nov., genoholotype: *Squamularia asiatica*, *Neogypidula* gen. nov., genoholotype: *Pentamerus* (?) *darvasicus* Tschernyschew, *Camarophorina* gen. nov., *C. antisella* Broili, *Pseudoderbyia* gen. nov., *P. netschajewi* gen. et sp. nov.

**Llopis Llado N.** - La microfauna de Braquiópodos del Triasico de Monte Toro (Menorca) [*Brachiopoda. Quaestio de microfauna ad aetatem Triassicam pertinente in monte* Toro]. 3 figs., Bol. Soc. Españ. Hist. Natur., XXXV, 3/4, 217-226. Madrid (1935). **b - 1433**

Entre una serie de fosiles procedentes del Triásico medio de Monte Toro el A. ha encontrado unas calizas margosas que contenian una abundante microfauna de Braquiópodos: historia, estratigrafia, descripcion de la microfauna, que comprende cuatro especies nuevas para el Triasico: *Orbiculoidea fragilis*, *O. complanata*, *O. elliptica*, *O. minor*.

**Macarovici N. Gh. & Vascautanu Th.** - Le sondage de Socola (Jassy) en 1927 (Faune des Foraminifères). 1° Note [*De explorata regione* Socola *A. 1927. Fauna Foraminiferorum*]. Ann. Scient. Univ. Jassy, XX, 414-421. Jassy (1935). **b - 1434**

Après une couche ayant des debris de Gastéropodes Lamellibranches et Cardiacées, l'A. a rencontré une autre couche jusqu'à une profondeur de m. 274 contenant, dans un sable quarzeux, plusieurs espèces de Foraminifères: *Nubecularia*, *Miliolina*, *Spiroloculina*, *Bigenerina*, *Spiroplecta*, *Bulimina*, *Glandulina*, *Nodosaria*, *Guttulina*, *Truncatulina* et *Polystomella*.

**Macfayden W. A. et als.** - The Mesozoic Paleontology of British Somaliland [*Palaeontologia mesozoica Somaliae Britannicae*]. 25 pls., Gvmt. Somaliland Protectorate, 228 pp. London (1935). **b - 1435**

This volume by eight authors is devoted to the systematic paleontology of the Jurassic and Cretaceous strata of British Somaliland. The *Foraminifera* (28 species) are described by W. A. Macfayden; the Corals and Hydroids (12 species) by H. Dighton Thomas; the Jurassic Echinoids (23 species) by Ethel D. Curie; the Cretaceous Echinoids (9 species) by H. L. Hawkins; the *Crinoidea* (8 species) by F. A. Bather; the Brachiopods (54 species) by H. M. Muir-Wood; the Pelecypods and Gastropods (61 species) by L. R. Cox, and the Cephalopds by L. F. Spath.

**Maillieux E.** - Contribution à l'étude des Echinoïdes du Frasnien de la Belgique [*Echinoidea. Contributio in eadem studenda e Frasniano Belgico provenientia*]. 2 pl., Mém. Mus. Hist. Natur. Belgique, 65, 1-16. Bruxelles (1935). **b - 1436**

Description détaillée, synonymes et génotypes de trois espèces nouvelles, *Xenocidaris Caheni* n. sp., *Devonocidaris Hacquaerti* n. sp. et *D. Dumoni* n. sp. Remarques sur la nature des gisements d'où proviennent les Oursins décrits.

**Maillieux E.** - Brachiopodes et Pélecypodes dévoniens [*Brachiopoda et Pelecypoda devoniana*]. 4 Pls., nomb. tab., Mem. Mus. Hist. Nat. Belgique, 70, 1-31. Bruxelles (1935). **b - 1437**

Description de quelques espèces nouvelles ou peu connues du Dévonien de la Belgique. Les caractères encore inédits de certains Brachiopodes amènent à créer deux genres nouveaux: *Dinapophysia* et *Straelenia*; étude particulière de la sous-famille *Pterineinae*.

**Makiyama J.** - *Sinanodelphis izumidaensis*, a New Miocene Dolphin of Japan [« *Sinanodelphis izumidaensis* » *delphinus novus miocenicus Japonicus*]. 3 pls., Mem. Coll. Sc., Kyoto Imp. Univ., Ser. B, XI, 2, 115-134. Kyoto (1935). **b - 1438**

Description of a new form of dolphin from the Miocene shale in Sinano. The new genus is separated clearly from any other Miocene delphinid genera because it has a closer relationship to the living *Delphinus*.

**Mansfield Wendell C.** - A new Species of *Pecten* from the Oligocene near Duncan Church, Washington County, Florida [*Species nova e Pectinidis ad aetatem oligocenicam pertinens apud* Duncan Church]. 3 figs., Journ. Washington Acad. Sc., XXIV, 8, 331-333. Washington (1934). **b - 1439**

*Pecten* (*Lyropecten*) *duncanensis* n. sp.

**Marino C.** - Sopra alcuni fossili sinemuriani di Sassorosso in Garfagnana (Toscana) [*De quibusdam fossilibus sinemurianis a* Sassorosso *in* Garfagnana (*Tuscia*) *provenientibus*]. 1 tav., Acta

Soc. Gioeniae Catin., XX, 2, N° 18, 15-19. Catania (1934). **b - 1440**

I calcari in esame, sono riferiti al Lias inferiore. Le specie studiate dall'A. sono: *Pentacrinus tubercolatus* Mill., *Terebratula Aspasia* Mgh., *T. Piccininii* Zitt., *Pecten Ugolini* Fuc., *Trochus epulus* D'Orb., alcuni esemplari appartenenti al genere *Phylloceras*, *Deroceras* sp. ind., *Microderoceras* sp., *Arietites jejunus* Dum., *Coroniceras* sp., *Atractites* sp.

**Marvick J.** - Some New Zealand Tertiary Mollusca [*Mollusca nova aetatis tertiariae in Nova Zelandia*]. 2 pls., Proc. Malacol. Soc. London XXI, 1, 10-21. London (1934). **b - 1441**

*Zeatrophon munitus*, *Uttleya arcana*, *U. crenata* (Pliocene); *Bartrumia tenuiplicata* (*Raeta* t. Bartrum), *Zeacolpus pukeuriensis*, *Galeodea apodemetes* (Miocene); *Opella hendersoni*, *Egotistica scirrhoma*, *Cominella* (*Paracominia*) *ferrari* (Oligocene); *Fascioplex liraecostata* (*Galeodes* 1. Suter) (Eocene).

**Maugeri P. G.** - Sopra alcuni coralli del Trias superiore di M.e Scalpello (Enna) [*De quibusdam corallis aetatis Triassicae superioris in monte* Scalpello (*Enna*)]. 1 tav., Accad. Gioenia di Sc. Natur. Catania, 67, ser. 2ª, 40-48. Catania (1934). **b - 1442**

I Corallari descritti provengono dalle marine argillose della regione Acquanova, e sono stati raccolti insieme a una ricchissima fauna di Cefalopodi ed a parecchi altri organismi. Le specie studiate sono: *Montlivaultia styliformis* n. sp. *Isastraea sicula* n. sp. *Latimaeandra* cfr. *labyrinthica* Klpst. sp., *Thamnastraea* sp. ind.

**McLearn F. H.** - The Ammonoid Genera *Gastroplites* and *Neogastroplites* [*De Gastroplitis et Neogastroplitis*]. 4 pl., Trans. R. Soc. Canada, Ser. 3, XXVII, 4, 13-26. Ottawa (1933). **b - 1443**

Diagnosis and description of the following forms: *Gastroplites; G. canadensis* (Whiteaves), *G. canadensis* var., *G. stantoni* McLearn, *G. allani* McLearn, *G. kingi* McLearn, *G. anguinus* Mc Learn, *G. spiekeri* McLearn. *Neogastroplites; N. cornutus* (Whiteaves), *N. selwyni* n. sp.

**McLearn F. H.** - Pelecypods of the Lower Cretaceous Clearwater Formation, Northern Alberta [*Pelecypoda ad formationem* Clearwater *pertinentia aetatis Cretaceae Inferioris in* Northern Alberta]. 3 pls., Trans. R. Soc. Canada, Ser. 3, XXVII, 4, 139-156. Ottawa (1933). **b - 1444**

Description of the Clearwater formation, which outcrops along Athabaska river from Point La Biche to below McMurray. The entire formation is marine and the marine *Deshayesites*, *Beudanticeras affine* or *Inceramus dowlingi* fauna ranges throughout it. Description of nine new species of the pelecypod fauna, which are as follows: *Entolium irenense* n. sp., *Pecten alcesianus* n. sp., *Camptonectes matonabbei* n. sp., *Goniomya matonabbei* n. sp., *Thracia kissoumi* n. sp., *Psilomya peterpondi* n. sp., *P. elongatissima* n. sp., *Arctica limpidiana* n. sp., *Protocardia alcesiana* n. sp., *Turnus lacombi* n. sp.

**Meinzer O. E.** - Geologic Reconnaissance of a Region adjacent to Guantanamo Bay, Cuba. With an appendix: Report on Species of Fossils collected in Cuba by O. E. Meinzer in November and December, 1915 by T. Wayland Vaughan [*Recognitio geologica regionis cuiusdam prope bajam* Guantanamo (*in insula Cuba*). *Appendix. Relatio de speciebus fossilibus in Cuba collectis a* Meinzer *mensibus novembri et decembri A. 1915*]. 2 figs., Journ. Washington Acad. Sc., XXIII, 5, 246-263. Washington (1933). **b - 1445**

The Fossils listed, *Coelenterata*, *Foraminifera*, *Algae*, *Mollusca* and *Brachiopoda*, belong to the Eocene, Miocene and recent epochs.

**Melinossi R.** - Su di un echinide della Patagonia [*De Echinide patagonico*]. 3 fig., Atti Soc. Toscana Sc. Natur., XLIV, 2, 32-39. Pisa (1935). **b - 1446**

Sono descritti due esemplari di un echinide spatangoide della famiglia delle Ananchitidee, appartenenti al genere *Holaster*, e alla nuova specie *H. Feruglioi*, del Cretaceo medio-superiore.

**Mezneries I.** - Stájerországi Slir-fauna és új alakjai - Steiermärkische Schlierfauna und ihre neuen Formen [*De fauna stratigraphica regionis* Steiermark *eiusque novis formis*]. (In Dtsch. Ung. Rés.). 1 Taf., 1 Tab. a. T., Földtani Közlöny (Geol. Mitt.), LXV, 10–12, 332-341. Budapest (1935). **b - 1447**

Ergebnisse einer Bestimmung des Fossilmaterials des Schliers des steierischen Beckens, welches dem Vf. überlassen wurde; das Material enthält zahlreiche marine Conchylien, Foraminiferen, Echinodermen und Brachiopoden, von denen die folgenden neuen Formen in der Arbeit beschrieben sind: *Amussium* (*Variamussium*) *felsineum* For., n. var. *styriaca*, *Pecten* (*Chlamys*) *kautskyi* n. sp., *Lima* (*Mantellina*) *làbeni* n. sp.

**Miller A. K.** - Burlington Goniatites [*Goniatitidae ad* Burlington *pertinentes*]. 3 figs., Amer. Journ. Sc., XXX, fifth ser., 179, 432-437. New Haven, Conn. (1935). **b - 1448**

Goniatites are very rare in the Middle Mississippian or Valmeyer series of America. Five species representing the genus *Münsteroceras* are described here, one of which as new: *M. mitchelli* n. sp.

**Miller A. K. & Britts Owen J.** - Cherokee Nautiloids of the northern Mid-Continent Region [*Nautiloidea marina ad* Cherokee *pertinentia*]. 12 pls., 7 figs., Univ. Iowa Studies, XVI, 3, 186-273. Iowa (1934). **b - 1449**

Morphology, taxonomy, geologic and geographic distribution of Lr. Pennsylvanian Nautiloids of Missouri, Kansas, and Iowa. About 13 species are new.

**Miloradovich B. V.** - Materials to the Study of the Upper Paleozoic *Brachiopoda* from the Northern Island of Novaya Zemlya [*Res collectae ad Brachiopoda studenda palaeozoica ab insula septemtrionali Novae Zemliae provenientia*]. (Russ. & Engl. Text.), 35 fig., 6 tabl., Trans. Arct. Inst., XIX, 1-168. Leningrad (1935). **b - 1450**

Description of about 72 species, 13 of which are new, from nine different parts of Novaya Zemlya. For every place there is a descriptive part with indications of geological stage, location, resemblances and distinctions followed by a conclusion.

**Miranda F.** - Algas coralináceas fósiles del Terciario de San Vicente de la Barquera (Santander) [*Algae corallinaceae fossiles aetatis tertiariae in* San Vicente de la Barquera]. 3 figs., 5 lám., Bol. Soc. Españ. Hist. Natur., XXXV, 5, 279-287. Madrid (1935). **b - 1451**

*Archaeolithothamnium Lugeoni*, *Lithothamnium camarasae*, *L. Vaughani*, *Lithophyllum simplex*, *L. Royoi* nov. sp., *Melobesia Lemoinei* nov. sp., *M. melobesioides*, *Jania Mengaudi*.

**Morley D.** - Tertiary Faunas. Vol. I. Systematic (Foraminifera, Echinoids, Lamellibranchs, Gastropods. Other Invertebrates. Vertebrates). Vol. II. The Sequence of Tertiary Faunas [*Faunae*

*tertiariae. Systematica. Series faunarum tertiariarum*]. Illustr., T. Murby & Co. London (1934–35). **b - 1452**

**Morrow A. L.** - *Foraminifera* and *Ostracoda* from the upper Cretaceous of Kansas [*Foraminifera et Ostracoda aetatis Cretaceae superioris in* Kansas]. 3 pls., Journ. Paleontol., VIII, 2, 186-205. Oklahoma (1934). **b - 1453**

Description of 37 spp. of *Foraminifera* and 7 spp. of *Ostracoda*. Several new species.

**Muir-Wood H. M.** - On the International Structure of Some Mesozoic *Brachiopoda* [*Brachiopoda quaedam mesozoica. Quaestio de interna structura*]. 14 figs., 2 pl., Phil. Trans. R. Soc., ser. B, CCXXIII, 505, 511-567. London (1934). **b - 1454**

Study on the homoeomorphy of seven common Mesozoic species of as many different genera (including *Digonella* nov.) of *Brachiopoda*; general description and characteristics of the forms studied; discovery of new morphologic structures, such as accessory sockets, denticulum, denticula cavity, and septalial plate.

**Nagao T.** - Cretaceous Mollusca from the Miyako District, Honshû, Japan [*De Molluscis aetatis cretaceae a districtu* Miyako *provenientibus*]. Journ. Fac. Sc. Hokkaidô Imp. Univ., IV, 2, 177-277. Sapporo (1934). **b - 1455**

Among the fossils found in the Cretaceous deposits of the Miyako district, *Lamellibranchiata* and *Gastropoda* have not been yet much studied, in spite of their richness and remarkably good state of preservation. In the present paper author treats 39 species of *Lamellibranchiata*, of which 21 are new, and 28 species of *Gastropoda* most of which are new. Calcareous *Algae*, *Foraminifera*, Corals and Echinoids have also been found.

**Nikiforova A. I.** - Contribution to the Stratigraphy of the Upper Palaeozoic of the North-Eastern Outskirts of the Great Donetz Basin [*De stratigraphia Paleozoicae aetatis superioris zonae septemtrionalis orientalis Bacini* Donetz]. (In Russ., Engl. Rés.). 1 table, C. R. Acad. Sc. U. R. S. S., III, 5, 393-397. Léningrad (1934). **b - 1456**

Results of a study of a collection of *Bryozoa* gathered in the north-eastern part of the Great Donetz Basin at a depth of 273.40-275.40 m. Comparison of the fauna under discussion to those of the Upper Carboniferous of North America (Upper Pennsylvanian), and in particular to the fauna from the Cisco group Graham Formation, Texas, which shows an obvious affinity with the fauna compared.

**Nomura S. & Hatai K.** - On two Species of *Phalium* from the Neogene of Japan [*Species duae ad « Phalium » pertinentes, a strato neogenico Japonico provenientes*]. 1 pl., Jap. Journ. Geol. & Geogr., Trans., XI, 1/2, 49-53. Tokyo (1933). **b - 1457**

Description of *Phalium yokoyamai* n. n. *Phalium yabei* n. sp.; earlier records and habitats; comparison and relation between those two forms.

**Oostingh C. H.** - Die Mollusken des Pliozäns von Boemiajoe (Java) [*De Molluscis aetatis pliocenicae* Boemiajoe (*in* Java)]. 31 Abb., 1 Karte, 17 Taf. VIII + 247 S., Wetensch. Meded. Dienst Mijnb. Ned. Ind. 26. Bandoeng (1935). **b - 1458**

Die meisten hier beschriebenen Mollusken, von denen viele neu sind, stammen aus einem Meer mit geringer Tiefe.

**Öpik A.** - *Ristnacrinus*, a new Ordovician Crinoid from Estonia. With a Note by F. A. Bather [« *Ristnacrinus* », *novus crinoidis ordovicianus in Estonia. Nota adiungitur* auctore F. A. Bather]. Pl., Publ. Geol. Inst. Univ. Tartu, 40, 8 pp. Tartu (1934). **b - 1459**

**Öpik A.** - *Amphipora ramosa* (Phil.) in the marine Devonian of Estonia [« *Amphipora ramosa* » *in Devoniano marino Estoniae*]. Publ. Geol. Inst. Univ. Tartu, 41, 8 pp. Tartu (1935). **b - 1460**

**Öpik A.** - *Hoplocrinus*, Eine stiellose Seelilie aus dem Ordovizium Estlands [*Hoplocrinus, trunco carens ad aetatem Ordovicianam Estoniae pertinens*]. Taf., Publ. Geol. Inst. Univ. Tartu, 43, 8 pp. Tartu (1935). **b - 1461**

**Opitz R.** - Lebensbilder aus dem Hunsrückschiefer– Meer [*De fossilibus ad mare argilaceum* Hunsrück *pertinentibus*]. 4 Abb., Nat. u. Volk, LXV, 10, 504-509. Frankfurt a. M. (1935). **b - 1462**

Ein Teil der besonders gut erhaltenen Fossilien-serie aus den unterdevonischen Dachschiefern von Bundenbach und Gemünden wird hier an Hand sehr wohl gelungener Abbildungen gezeigt und beschrieben: *Hapalocrinus frechi* Jaekel, *Gemündina stürtzi* Traquair, *Palaeoisopus problematicus* Broili.

**Pagani M. P.** - Su alcuni Brachiopodi paleozoici di Sérdeles (Fezzan) [*De Brachiopodis palaeozoicis in* Serdeles (Fezzan)]. 1 tav., Atti Soc. Ital. Sc. Nat. e Mus. Civico di St. Natur., LXXIII, 3, 254-260. Milano (1934). **b - 1463**

Illustrazione dei fossili di Sérdeles: *Spirifer carinatus* Schnur. *S. carinatus* Schnur. var. *latissima* Scupin., *S. carinatus* Schmur. var. *serdelensis* n. f.

**Parona C. F.** - Osservazioni sul « *Permosoma tunicatum* » Jaekel della fauna permiana di Sicilia (Palazzo Adriano) e rivista sommaria della fauna stessa in rapporto colle faune coeve [*Observationes circa speciem « Permosoma tunicatum » ad faunam Permianicam Siculam pertinentem. Inspectio adiungitur compendiosa de eadem fauna pro faunis eiusdem aetatis*]. Atti R. Accad. Sc. Torino, Cl. Sc. Fis. Mat. e Nat., LXVIII, 7/10, 288-304. Torino (1933). **b - 1464**

Rivista della fauna fossile della Sicilia con speciale riguardo agli Evertebrati meno conosciuti: *Bryozoa*, *Echinodermata* ed *Anthozoa*. L'A. è del parere che *Permasoma tunicatum* Jaekel appartenga alle *Spongiae* invece che ai tunicati e sia da identificarsi con il *Sphaerospongia permotessellata* Parona.

**Poulsen Chr.** - The Silurian Faunas of North Greenland. I. The Fauna of the Cape Schuchert Formation [*De fauna siluriana Gröenlandiae Nordicae. De fauna pertinente ad formationem* Cape Schuchert]. 3 pls., 5 figs., Medd. om Grönland, LXXII, 1, 46 pp. København (1934). **b - 1465**

The fauna described in this paper consists of 42 species, of which 28 are specifically named and 20 are new. There are 2 Corals, 5 Graptolites, 12 Brachiopods, 20 Trilobites and 2 Ostracods.

**Principi P.** - Alcune osservazioni sulle analogie esistenti fra i terreni terziari dell'Albania e quelli dell'Italia centrale [*Observationes circa*

*conformitates inter terrena aetatis tertiariae in Albania et Italiae centralis terrena*]. (Bibl.). Atti R. Accad. Naz. Linc. Rend. Cl. Sc. Fis. Matem. e Natur., XX, 5/6, 200-204. Roma (1934). **b - 1466**

In ambedue queste regioni l'Eocene è caratterizzato dalla presenza di Nummuliti; solo nell'Oligocene alle Nummuliti si associano le Lepidocicline, le quali, poi, unite a forme di Anfistegine, Miogipsine ed Operculine, perdurano sino al Miocene medio. Analogie con alcune regioni appenniniche del Bolognese e delle Marche.

**Rathbun M. J.** - Fossil Crustacea of the Atlantic and Gulf Coastal Plain [*De crustaceis fossilibus ad planitiem pertinentibus in litoribus Oceani Atlantici*]. 26 pls., 2 figs., Geol. Soc. Amer. Spec. Pap., 2, 160 pp. Washington (?) (1935). **b - 1467**

Author deals with both the genesis and the stratigraphy of the known Crustacea (essentially crabs and lobsters) from the Cretaceous and Cenozoic formations of the Coastal Plain from Massachussetts to Texas. Three new genera are described: *Prehepatus, Ophtalmoplax* and *Scyllarella*. Of decapodes, the Cretaceous has 66 (34 new), the Eocen 51 (35 new); the Oligocene 5 (4), the Miocene 25 (8 new and 12 still living): the Pliocene 5, and the Pleistocene 14. Twelve new forms of Isopoda are described and two formerly known Stomatopoda.

**Raymond P. E.** - Report on Invertebrate Paleontology [*Relatio de palaentologia invertebratorum*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College, 1934-1935, 33-36. Cambridge U. S. A. (1935). **b - 1468**

Collections of Trilobites in northern Vermont from older Paleozoic strata of Norway, Sweden and Esthonia with a view to facilitate comparison between American and northern European faunas. *Foraminifera* – collection of 960 spp. presented by Dr Cushman. List of accessions. Revisional work especially of Cephalopods.

**Rjazankine J.** - Les Ammonites de l'expédition maritime de Kara, 1934 [*Ammonites ad expeditionem maritimam pertinentes in mare Karensi A. 1934*]. (En russe). Vzryvn. Djelo, IX (17), 35-42. Moskva (1934). **b - 1469**

**Robertson G. M.** - The Ostracoderm Order Osteostraci [*Ordo « Ostracoderma » ad « Osteostraci » pertinens*]. Science, LXXXII, 2125, 282-283. New York (1935). **b - 1470**

With reference to the works of Stensiö and Patten the A. here gives a provisional classification with a key to characterize the families. Further research work is being carried out on the members of the order.

**Ruedemann R.** - Paleozoic Plankton of North America. Part I & II [*Substantiae planctonicae aetatis palaeozoicae in America Sept.*]. Geol. Soc. Amer. Mem., 2, 7-97. Washington D. C. (?) (1934). **b - 1471**

This memoir deals with the fossil representatives of floating or planktonic life found in the shallow-water deposits of epicontinental seas, and more particularly with the typical graptolite associations. Part I is an analysis of the small faunas in the typical graptolite associations. Part II of the memoir is concerned with the rare fossil associates of the graptolite, of which 49 are described, divided among 12 classes of organims; 22 new species and 3 new genera (2 cnidarians and 1 worm) are proposed.

**Ruedemann R. & Decker C. E.** - The Graptolites of the Viola Limestone [*Graptolites ad* Viola Limestone *pertinentes*]. 4 pls., Jour. Paleontol. VIII, 3, 303-327. Oklahoma (1934). **b - 1472**

Description of 30 spp. and vars. from Oklahoma, the following of which are new: *Desmograptus oklahomensis, Dicranograptus nicholsoni geniculatus, D. nicholsoni longibasalis* and *Climacograptus typicalis crassimarginalis.*

**Runzheimer H.** - *Proetus* (*Proetus*) *crassimargo* (F. A. Roemer, 1850) und einige verwandte Formen: *P.* (*P.*) *orbitatus* Barr., *P.* (*P.*) *koenemi* Maur., *P.* (*P.*) *gryphus* n. sp. [*Species « Proetus* (*Proetus*) *crassimargo » formaeque affines* (*in superiore titulo memoratae*)]. 5 Taf. a. T., Senckenbergiana, XVII, 3/4, 182-206. Frankfurt a. M. (1935). **b - 1473**

Eingehende Erörterung mit Berichtigungen früherer Fehlbestimmungen von den *Proetus* (*Proetus*) – Arten *crassimargo, orbitatus* und *koeni*. Beschreibung des ersten zusammenhängenden Panzers von *P.* (*P.*) *crassimargo* und *P.* (*P.*) *orbitatus*. Feststellung der Gesichtsnaht als sicherster Trennungsfaktor.

**Sakaura Katuhiko** - Pliocene and Pleistocene *Bryozoa* from Bôsô (I). I. *Bryozoa* of the Dizôdô Beds [*Bryozoa pliocenica et pleistocenica* Bôsô. I. « *Bryozoa* » *a stratis* Dizôdô *provenientia*]. 7 pls., Journ. Fac. Sc. Imp. Univ. Tokyo, IV, sect. II, 1, 1-48. Tokyo (1935). **b - 1474**

59 species of *Cheilostomata* and 18 species of *Cyclostomata*, including 20 new species and 3 new varieties are described.

**Saurin E.** - Sur la présence du Lias dans la province du Phu Yên (Sud Annam) et sur l'âge des grès supérieurs de l'Indochine du Sud-Ouest [*De Liassica aetate in Provincia* Phu Yên *deque aetate petrarum arenariarum superiorum in Indosinica regione sud-occidentali*]. C. R. Acad. Sc., CC, 4, 332-334. Paris (1935). **b - 1475**

Distribution des grès supérieurs dans l'Indochine du Sud-Ouest. Ces grès contiennent des intercalations peu épaisses d'une lumachelle calcaire dans laquelle l'A. a reconnu: *Pecten* (*Amussium*) *pumilus*, Lmck. var. *donaiensis mansuy*; *Trigonia* cf. *striata* Mill., avec de nombreux Ostréidés et de gros Pleurotomaries, espèces caractéristiques des affleurements toarciens. Au point de vue paléogéographique et structural, cette nouvelle zone de Toarcien marin permet d'envisager la continuité du sillon toarcien qui, partant de la Cochinchine, s'étend en direction NNE, jusqu'au Darlac septentrional.

**Schmid K.** - Biometrische Untersuchungen an Foraminiferen (*Globorotalia menardii* (d'Orb.), *G. tumida* (Brady) und *Truncatulina margaritifera* Brady, *T. margaritifera granulosa* Fisher) aus dem Pliozän von Ceram (Niederl. Indien) [*Investigationes biometricae in Foraminifera quorum species in superiore titulo memorantur ex Pliocenica aetate in* Ceram]. 3 Tab., 4 Abb., Eclogae Geol. Helvetiae, XXVII, 1, 45-134. Basel (1934). **b - 1476**

Durch seine Untersuchungen ist der Vf. zum folgenden Schluss gekommen: *Globorotalia* (*Pulvinulina*) *tumida* (Brady) ist die A-oder makrosphärische Form und *G.* (*P.*) *menardii* (d'Orb.) ist die B- oder mikrosphärische Form von *Globorotalia menardii* (d'Orb.). Die zwei anderen *Truncatulina*- Formen sollten eigentlich als *Truncatulina margaritifera* Brady mit einer A- oder makrosphärischen Form (*T. margaritifera* v. *granulosa*) und einer B-oder mikrosphärischen Form (*T. margaritifera*) bezeichnet werden. Ausserdem sind sämtliche Formen dimorphisch und nicht ritmorphisch.

**Schmidt H.** - Fischreste aus dem Taunusquarzit [*Piscium relicta aetatis quarziferae* Taunus]. 6 Abb., Palaeontol. Ztschr., XV, 4, 228-245. Berlin (1933). **b - 1477**

Von den hier beschriebenen, etwa 15 Formen (*Cyclostomata, Placodermata, Selachia, Acanthodea*), ist *Taunaspis eurystethes* neu.

**Schmidt H.** - Conodontenfunde in ursprünglichem Zusammenhang [*De Conodontis, originaria eorum connexione repertis*]. 8 Abb., 1 Taf., Paläontol. Ztschr., XVI, 76-85. Berlin (1934). **b - 1478**

Diese Arbeit ist aus grosser Bedeutung für die Paläoanatomie der Fische. Dem Vf. ist es gelungen, aus den Schiefern des ältesten Oberkarbons Westfalens, Ablagerungen eines stillen Meeresbodens, neun verschiedene Gruppen zu unterscheiden. (S. auch Bespr. von Edinger, Naturwiss. 46, S. 789, 1935).

**Schmidt H.** - Die bionomische Einteilung fossiler Meeresböden [*Partitio bionomica fundorum marinorum fossilium*]. 24 Abb., 154 S., Fortschr. Geol. u. Paläontol., XII, 38. Berlin (1935). **b - 1479**

Die Einteilung der verschiedenen Sediment-typen wird in diesem Werke vom hydrobiologischen Standpunkt d. h. auf Grunde des Zusammenhanges zwischen Sedimentbeschaffenheit und Benthos behandelt. Besonders berücksichtigt werden das Adriatische Meer und das Mittelmeer, die atlantische Küste Frankreichs, die Nord-und Ostsee.

**Schneegans D.** - Sur la découverte des couches à *Cardita Beaumonti* au Gabon (Afrique équatoriale Française) [*De inventis stratis speciem « Cardita Beaumonti » continentibus, in* Gabon (*Africa Aequatoriali Gallica*)]. C. R. Acad. Sc., CC, 2, 159-161. Paris (1935). **b - 1480**

Résultats de l'étude de la côte au Nord de l'embouchure de la lagune d'Iguéla; découverte dans les couches silicifiées qui la constituent, de fossiles, parmi lesquels l'A. a pu reconnaître plusieurs formes du groupe de *Cardita Beaumonti* d'Arch. Importance de ces gisements.

**Semichatova S. V.** - Die carbonischen Brachiopoden von der Berch'insel (Nowaja Semlja). [*De Brachiopodis carboniferis insulae* Berch]. (Russ. Text, Dtsch. Rés.). 2 Taf., Trans. Inst. Mar. Fish. & Oceanogr., Geol. works on Novaya Zemlya, I, 72-109. Leningrad (1935). **b - 1481**

Diese Arbeit stellt die erste Beschreibung der carbonischen Fauna von der Berch'insel dar, die Bestimmung wird aber auf Grund des schlechten Erhaltungszustandes des Materiales erschwert. Liste der gefundenen Arten, von denen 4 Arten und 2 Varietäten für die Berch'insel neu sind.

**Sickenberg O.** - Beiträge zur Kenntnis tertiärer Sirenen. I. Die eozänen Sirenen des Mittelmeergebietes. II. Die Sirenen des Belgischen Tertiärs [*Contributio in Sirenia aetatis tertiariae cognoscenda. I. Sirenia eocenica regionis Mediterraneae. II. Sirenia ad aetatem tertiariam Belgicam pertinentia*]. Zahlr. Fig. i. T. u. a. T., Masstabellen. Mém. Mus. R. Hist. Natur., 63, 1-352. Bruxelles (1934). **b - 1482**

Die eozänen Sirenen des Mittelmeergebietes: 1. Teil. Die eozänen Sirenen Aegyptens. Allgemeine Bemerkungen über die Zusammengehörigkeit der Funde. 2. Teil. Die eozänen Sirenen Europas: Die eozänen Sirenen Italiens. Die eozänen Sirenen Siebenbürgens. Anhang: Ungarn, die eozänen Sirenen Frankreichs. Uebersicht über die zeitliche und systematische Gruppierung der eozänen Sirenen. *Eotherium* Owen: *E. aegyptiacum* Owen, *E.* (*Eosiren*) *abeli* n. sp., *Protosiren* Abel, *P. fraasi* Abel, *Prototherium* de Zigno, *P. veronense* de Zigno, Die Sirenen des belgischen Tertiärs: Die oligozänen und miozänen Sirenen Belgiens. Erhaltungzustand. Lebens- und Nahrungsweise. Verwandtschaftliche Stellung. *Halitherium schinzi* f. *delheidi* Hartl., *Miosiren kocki* Dollo. Nachtrag: Kurze Besprechung von zwei nach der Veröffentlichung dieses Werkes erschienenen Arbeiten, welche für die Kenntnis der Sirenen sehr wichtig sind.

**Silvestri A.** - Rocce e fossili del paleozoico superiore raccolti dalla spedizione geografica italiana nel Caracorum (1929). II. I fossili [*Saxa et fossilia aetatis palaeozoicae superioris collecta perdurante expeditione Italica ad* Caracorum (*1929*). *Fossilia*]. 3 tav., Mem. Pont. Acad. Scient. Novi Lyncaei, II, 3, 79-118. Roma (1935). **b - 1483**

Si illustrano i fossili raccolti nel Caracorum dalla spedizione condotta dal Principe Ajmone di Savoia, Duca di Spoleto, nel 1929, che confermano pienamente nelle regioni esplorate la presenza di due orizzonti dell'Antracolitico marino, cioè dell'Uraliano superiore a *Fusulinidae* e dell'Artinschiano superiore a *Neoschwagerinae*.

**Smiser J. S.** - A Revision of the Echinoid Genus *Echinocorys* in the Senonian of Belgium [*Reinspectio generis « Echinocorys » in strato senoniano Belgico*]. 2 pls., 25 figs., tabls., Mem. Mus. R. Hist. Natur., 67, 1-51. Bruxelles (1935). **b - 1484**

Character of value in separating species and varieties of *Echinocorys*. Descriptions and occurrences of species belonging to the family *Ananchitidae*, genus *Echinocorys breynius*. Evolution and stratigraphic distribution.

**Spath L. F.** - Catalogue of the Fossil *Cephalopoda* in the British Museum. Part 4: The *Ammonoidea* of the Trias [*Index Cephalopodorum fossilium in* British Museum. *Ammonoidea aetatis Triassicae*]. 18 pls., xvi + 521 pp., Brit. Mus. (Natur. Hist.). London (1934). **b - 1485**

This part includes only about half of the Triassic Ammonoids, namely, the Pronoritida, Xenodiscida, Meekoceratida and part of the Ceratida of Lower and Middle Trias. The remaining groups of Middle and Upper Trias will be dealt with in a forthcoming volume.

**Stefanini G.** - Sulla scoperta di resti fossili di Vertebrati nella Sirtica Orientale [*De inventis relictis fossilibus ad Vertebrata pertinentibus in Orientali regione Syrtica*]. Tav. 2 f. t., Boll. Geogr., 5/6, 153-157. Tripoli (1934). **b - 1486**

L'A. riferisce sul riconoscimento, presso Sahabi di marne gessose verdastre alternanti con qualche filaretto calcareo e con sabbie silicee, nelle quali alcuni livelli erano ricchi di avanzi di Vertebrati marini: conchiglie, avanzi di pesci (Squali, Teleostomi vari) e avanzi di animali terrestri.

**Sutton A. H.** - Evolution of *Pterotocrinus* in the Eastern Interior Basin during the Chester Epoch [*Evolutio generis « Pterotocrinus » in interiore sinu orientali, aetate Chesteriana*]. 2 pls., Journ. Palaeontol., VIII, 4, 393–416. Oklahoma (1934). **b - 1487**

Three subgeneric groups (gentes) are defined and discussed, each named after its type species. Thirteen previously defined spp. are redescribed and 13 new species erected.

**Suzuki Kôiti & Takai Huyuzi** - Fossiliferous Bed in the Vicinity of Tako–mati, Tiba Prefecture [*De strato fossilifero apud* Tako-mati]. (In Jap.). Journ. Geol. Soc. Japan., XLII, 1–35. Tokyo (1935). **b - 1488**

In the fauna contained in the fossil bed there are determined 1 species of coral, 202 of *Mollusca*, 1 of *Brachiopoda*, 2 of *Balanus* and 3 of *Echinoidea* which are mostly Japanese endemic forms.

**Tavani G.** - Sulle anomalie negli ambulacri di alcuni Echini del Miocene della Cirenaica [*De abnormitatibus in ambulacris aliquorum Echinorum aetatis Miocenicae Cirenaicae*]. 3 fig., Atti Soc. Tosc. Sc. Nat., Proc. Verb., XLIV, 5, 119-123. Pisa (1935). **b - 1489**

Sono descritte le anomalie presentate da due Echini del Miocene della Cirenaica. Vengono riprese in esame le categorie create in proposito dal Thiéry e dal Séguin e ne viene proposta una nuova – [A.].

**Thompson M. L.** - The Fusulinids of the Des Moines Series of Iowa [*Fusulinidae ad seriem* Des Moines, Iowa, *pertinentes*]. 4 pls., Univ. Iowa Studies, XVI, 4, 277-332. Iowa (1934). **b - 1490**

Description of 16 spp., 13 of which are new belonging to the genera *Fusulinella*, *Wedekindellina*, and *Fusulina*. All known American representatives are listed.

**Thorpe M.** - A Newly Mounted Specimen of *Portheus molossus* Cope [*Exemplar « Portheus molossus » denuo recompositum*]. 2 figs., 1 table. Amer. Journ. Sc., XXVIII, 164, 121-126. New Haven, Conn. (1934). **b 1491**

Detailed description of a magnificent skeleton of the primitive Cretaceous teleostean fish *P. molossus* recently mounted and placed on exhibition in the Great Hall of the Peabody Museum of Natural History.

**Troedsson G.** - Ueber die Verbreitung von *Dalmanites eucentrus* und *Dalmanites mucronatus* im untersten Gotlandium Schwedens [*De distributione specierum « Dalmanites eucentrus » et « D. mucronatus » in strato geologico inferiore Gotlandico Suetio*]. Senckenbergiana, XVII, 3/4, 177-181. Frankfurt a. M. (1935). **b - 1492**

Ergänzung und kritische Betrachtung der Arbeit von H. Schmidt « Das Verhältnis von *Dalmanites eucentrus* (Ang.) zu *Dalmanites mucronatus* (Brongn.) (Senckenb. XVII, 1935). Vf. vertritt die Ansicht von Transgressions-Erscheinung als Ursache der Veränderungen der Fazies und Fauna des *Dalmanites*- Schiefers.

**Ueji T.** - *Lamprotula nojimensis* n. sp. a Fossil Unionid from the Kitamatsuura Coal-Field, Northern Kyushu, Japan [*De « L. nojimensis », Unionide fossilium in depositis carboniferis in regione* Kitamatsuura]. 8 figs., Venus, IV, 5, 284-288. Kyoto (1934). **b - 1493**

Description of this new fossil species belonging to the Oligocene.

**Vincienne H.** - Sur l'extension et la position stratigraphique des bancs à Stromatoporoïdés dans l'Ouest du Jura méridional, aux environs de Villereversure (Ain) [*De extensione et positione stratigraphica vadorum quae Stromatoporoidea continent in* Jura *meridionali apud* Villereversure]. C. R. Acad. Sc., CC, 16, 1420-1423. Paris (1935). **b - 1494**

L'A. démontre que la présence des Hydrozoaires stromatoporoïdés, dont la plupart appartiennent à l'espèce *Burgundia trinorchii*, qui est particulièrement constante dans la région ouest du Jura méridional, constitue un nouveau repère caractéristique pour la détermination du Lusitanien supérieur; il semble que les conditions des mers en cette période aient été très favorables au développement de ces organismes.

**Wade R. T.** - On a New Triassic Catopterid Fish from New South Wales [*Piscis novus catopteridis aetatis triassicae ad regionem* New South Wales *pertinens*]. 3 figs., Ann. and Magaz. Natur. Hist., XII, 67, 121-125. London (1933). **b - 1495**

*Brookvalia* erected for *B. gracilis*, *B. propennis* n. sp., and *B. parvisquamata* n. sp.

**Wade R. T.** - The Triassic Fishes of Brookwale, New South Wales [*De piscibus aetatis triassicae in regione* Brookwale (New South Wales) *repertis*]. 10 pls., xiv + 110 pp., Brit. Mus. (Natur. Hist.). London (1935). **b - 1496**

**Wanner J. & Sieverts H.** - Zur Kenntnis der permischen Brachiopoden von Timor 1. *Lyttonidae* und ihre biologische und stammesgeschichtliche Bedeutung [*De cognoscendis Brachiopodis permianicis ad* Timor *pertinentibus. « Lyttonidae » earumque momentum biologicum et genealogicum*]. 25 Abb., 4 Taf., N. Jahrb. Beil., LXXIV, Abt. B, 201-281. Stuttgart (1935). **b - 1497**

7 neue Formen sind hier aufgezeichnet. Ein besonderes Kapitel ist ihrer Entwicklungsgeschichte gewidmet.

**Wells J. W.** - Notes on some European Upper Cretaceous Corals [*De corallis quibusdam europaeis ad stratum cretaceum superius pertinentibus*]. Ann. and Magaz. Natur. Hist., XIV, 81, 385-390. London (1934). **b - 1498**

Emendments of some spp.: *Astrocoenia formosissima* n. sp. instead of *Astraea f. Sowerby*, *Stephanocoenia striata* n. sp. instead of *Astraea s.* Goldfuss, *Nefocoenia ambigua* n. sp. instead of *Astraea a.* Sow. = *N. decussata* Oppenheim; other spp. of *Stephanocoenia* prove to be synonymous with *S. striata*; *Aulopsammia* Reuss is not synonym with *Epiphaxum* Lonsd. but there is a possible synonymy pointed out between *Mesomorpha* and *Thamnasteria*.

**Wells J. W.** - Corals from the Cretaceous and Eocene of Jamaica [*De corallis ad strata cretacea et eocenica pertinentibus in* Jamaica]. 3 pls. Ann. and. Magaz. Natur. Hist., XV, 86, 183-194. London (1935). **b - 1499**

*Astrocoenia dixae* n. sp., *Favia ? gregoryi* n. sp., *Colpophyllia duncani* n. sp., *Cyclolites thomasi* n. sp., *Pseudocolumnastraea eyrei* n. sp. (Columnastraea e. Duncan), *Trechmannaria montanaroae* n. sp., *Meandrarea clarendonensis* n. sp. and *Elephantaria tottoni* n. sp.

**Wetzel O.** - Die in organischer Substanz erhaltenen Mikrofossilien des Baltischen Kreidefeuersteins [*De microfossilibus qui continentur in substantia organica petrae siliceae Maris Baltici*]. 15 Textfig., 7 Taf., Palaeontographica, LXXVII & LXXVIII, 141-186, 1-110. Stuttgart (1933). **b - 1500**

Ein sehr interessantes Werk, in welchem eine ganze Welt von marinen Mikrofossilien beschrieben ist, mit besonderer Berücksichtigung von Flintsteinen originaler aber diagenetischer Herkunft, welche scheinbar öfters in proterozoischen Strata hervorkommen. Methoden.

**Wheeler H. E.** - New Trilobite Species from the Anthracolithic of Northern California and *Griffithides conwayensis*, a new Name for a Trilobite Species from the Atoka Formation of Arkansas [*Trilobita. Species novae ab Antracolitico Califor-*

*niano Nordico provenientes. Agitur etiam de « Griffithides conwayensis » nomine novo speciei trilobiticae assignato ad formationem* Atoka (Arkansas) *pertinente*]. 6 pl., Trans. San Diego Soc. Natur. Hist., VIII, 8, 47-58. San Diego (1935). **b - 1501**

*Proetus « ellipticus »* of the Baird formation of northern California has been renamed and described as *P. bairdensis* n. sp. *Griffithides nosoniensis* n. sp. is described by the A. in another paper.

**Withers R. B. & Keble R. A.** - The Palaeozoic Starfish of Victoria [*Stella marina palaeozoica in* Victoria]. 3 Pl., Proc. R. Soc. Victoria, n. ser., XLVI, 2, 220-249. Melbourne (1934). **b - 1502**

There are now fifteen species known from Victoria, belonging to eight genera: *Hudsonaster, Caractacaster, Promopalaeaster, Petraster, Urasterella, Salteraster, Schuchertia* and *Palasterina.*

**Woodward Smith A.** - Notes on some recently discovered Palaeozoic Fishes [*De piscibus quibusdam palaeozoicis nuper inventis*]. Ann. and Mag. Natur. Hist., XIII, 77, 526-528. London (1934). **b - 1503**

Emendments and similarities of several species.

**Yabe H. & Hanzawa S.** - *Foraminifera?* Remains from Ordovician Limestone of Manchuria [*Foraminifera. Relicta a calcare ordoviciano Manciuriae provenientia*]. 3 figs., Proc. Imp. Acad., XI, 2, 55-57. Tokyo (1935). **b - 1504**

Results of a miscroscopic examination of a fine-grained, gray limestone with numerous round spots collected from the upper part of the Ordovician Ssu-yen formation, Manchuria; the spherical bodies observed strongly remind of certain monothalamous Foraminifera in form and size, like *Orbulina*, and sometimes form more or less prominent relief on weathered surface of the limestone, closely resembling shells of arenaceous Foraminifera, such as *Psammosphera.*

**Yabe H. & Hatai K.** - On Some Brachiopoda from the « Ryûkyû Limestone » of Kikai-zima and Southwestern Formosa (Taiwan) [*Brachiopoda quaedam ab Albarese regionis* « Ryûkyû » *provenientia, praecipue a regionibus* Kikai-zima *et Formosa sudoccidentali*]. 1 pl., Jap. Journ. Geol. & Geogr., Trans., XII, 3/4, 93-102. Tokyo (1935). **b - 1505**

This limestone appears to bear a faunal facies not found in northern Formosa or Japan proper which may indicate a warm water condition. Seven forms are described, four of which are new.

**Yabe H. & Mabuti S.** - On Two Upper Palaeozoic Nautiloids from Japan and China [*De novis duobus Nautiloideis palaeozoicis a Japonia et regione Sinensi provenientibus*]. 1 pl., Jap. Journ. Geol. & Geogr., Trans., XII, 1/2, 9-12. Tokyo (1935). **b - 1506**

After some general remarks as to the formation in which the specimens dealt with in this article have been collected, the authors give the description of *Shansinautilus* gen. nov., *S. ozakii* sp. nov., and *Metacoceras* Hyatt, *Metacoceras* sp. indet.

**Yabe H. & Shimizu S.** - Triassic Deposits of Japan [*De triassicis depositis ad Japoniam pertinentibus*]. 1 tabl., Jap. Journ. Geol. & Geogr., Trans., X, 3, 4, 87-98. Tokyo (1933). **b - 1507**

The total surface area of Triassic deposits, their stratigraphical relation to the older and younger formations. Distribution of the different beds: *Pseudomonotis ochotica*, the most widespread one, *Hollandites, Daonella, Oxytoma-Myoconcha, Halobia* etc.

**Yabe H. & Sugiyama T.** - Discovery of *Amphipora* and *Clathrodictyon* in the Permian of Japan [« *Amphipora* » *et* « *Clathrodictyon* » *in strato permianico Japonico reperta*]. 3 fig., Jap., Journ. Geol. & Geogr., Trans., XI, 1/2, 19-23. Tokyo (1933). **b - 1508**

The material described here and collected in a small valley near Nakamura-machi, Iwaki province offers a special interest as it is the first instance of *Amphipora* and *Clathrodictyon* occurring in a geological formation in Japan.

**Yabe H. & Sugiyama T.** - A New Species of the Genus *Ranina* (*Lophoranina*) from Hahazima, Ogasawara Group (Bonin Islands), Japan [*Species nova generis* « *Ranina* » *ab* Haha-zima *proveniens*]. 2 figs., 1 pl., Jap. Journ. Geol. & Geogr., Trans., XII, 1/2, 1-4. Tokyo (1935). **b - 1509**

Description and diagnosis of a crab belonging to a new species of the genus *Ranina*, subspecies *Lophoranina*, – *R.* (*L.*) *toyosimai* sp. n., of which a number of specimens has been collected by the junior author while visiting a calcareous tuffite exposed at a sea cliff of Nisiura on Hahasima, one of the islands of the Ogasawara Group (Bonin Island). The new form described is more like the Indian species than Mediterranean types and is especially similar to *Ranina* (*Lophoranina*) *bakeri* A. M. Edwards.

**Yabe H. & Sugiyama T.** - Note on a New Fossil Coral, *Saipania tayamai*, gen. et sp. nov., Found in the Island Saipan, Mariana Group [*De novo quodam corallo fossili* « *S. tayamai* » *in insula* Saipan *reperto*]. 2 figs., 2 pl., Jap. Journ. Geol. & Geogr., Trans., XII, 1/2, 5-7. Tokyo (1935). **b - 1510**

Diagnosis, locality and geological horizon of *S. tayamai* Yabe and Sugiyama gen. et sp. nov., a peculiar fossil collected by Mr. R. Tayana from a conglomerate bed of Densin-yama on the island Saipan, Mariana Group. It is a small fragmental specimen, but it exhibits very characteristic features and is similar to the genus *Diplochaetes* established by W. Weissermel from the Diamond bed on Bogenfels, South Africa: the two forms are sufficiently different in certain features to warrant their generic separation.

**Yabe H. & Sugiyama T.** - *Circopora* Found in Japan [« *Circopora* » *in Japonia reperta*]. 1 pl., Jap. Journ. Geol. & Geogr., Trans., XII, 1/2, 13-15. Tokyo (1935). **b - 1511**

The present note comprises the diagnosis of two forms of *Circopora* found in Japan, i. e.: *C.* aff. *faveolata* Waagen & Wentzel and *Circopora*? sp. The materials on which the two forms are based are found respectively in the Kitakami Mountainland and Awa province.

**Yakowlew N.** - Crinoidi permiani di Sicilia [*Crinoidea permianica Sicula*]. 2 fig., 2 tav., Palaeont. Italica, Mem. di Paleont., XXXIV, n. ser. IV, 269-283. Pisa (1935). **b - 1512**

Descrizione e illustrazione dei seguenti crinoidi del Permiano in Sicilia: *Paragaricocrinus mediterraneus* n. g. n. sp., *Monobrachiocrinus siciliensis* n. g., n. sp., *Tetrabrachiocrinus fabianii* n. g., n. sp., *Graphiocrinus fossatotuberculatus* n. sp., *Cibolocrinus nodosus* n. sp., *Erisocrinus Stefaninii* n. sp., *Basleocrinus cryptobasalis* n. sp., *Palermocrinus jaekeli.*

**Zilch A.** - Zur Fauna des Mittel-Miocäns von Kostej (Banat), Typus-Bestimmung und Tafeln zu O. Boettger's Bearbeitungen [*De fauna aetatis miocenicae medio-centralis in* Kosley. *Typorum determinatio tabulaeque a* Boettger *perfectae*]. 535 Abb. a. 22 Taf., Senckenbergiana, XVI, 4/6, 193-302. Frankfurt a. M. (1934). **b - 1513**

Hier sind sämtliche Arten zusammengefasst, die überhaupt von Kostei als neu in die Wissenschaft eingeführt worden sind. mit Ausnahme der von Hoernes & Auinger 1879 aufgestellten 9 Gastropoden-Arten. Angabe von Holotypus, Lectotypus, Locus typicus, Material und Vorkommen.

**Zuffardi-Comerci R.** - Corallari paleogenici dell'isola di Rodi [*Corallaria palaeogenica insulae Rhodos*]. 2 fig., Atti R. Acc. Sc. di Torino. Cl. Sc. Fis., Mat., e Nat., LXX, 1, 411-429. Torino (1934-35). **b - 1514**

L'A. descrive un gruppo di fossili paleogenici dell'isola di Rodi costituito da 18 forme di Corallari – di cui due nuove specie – ed una forma di Briozoario. La Corallofauna è nuova per l'isola e, con la presenza di specie caratteristiche, conferma l'esistenza di livelli paleogenici, in particolare dell'Eocene superiore e dell'Oligocene medio già rilevati da altri autori.

## PHYLOGENIA

**Berg L. S.** - Sur les unités taxonomiques chez les Poissons [*De unitatibus taxonomicis in Piscibus*]. Bull. Mus. Nat. Hist. Natur., VII, 1, 79-84. Paris (1935). **b - 1515**

Bref aperçu des principes adoptés par l'A. pour la nomenclature des Poissons: Unités géographiques et héréditaires; unités non-géographiques, héréditaires; formes non-géographiques et non-héréditaires.

**Chatton E. & Biecheler B.** - Les *Coccidinidae* Dinoflagellés coccidiomorphes parasites de Dinoflagellés, et le phylum des *Phytodinozoa* [« *Coccidinidae* » *Dinoflagellata coccidiomorpha parasitica in Dinoflagellatis. De phylogenia in* « *Phytodinozoa* »]. 1 fig., C. R. Acad. Sc., CXCIX, 252. Paris (1934). **b - 1516**

Les formes nouvelles, décrites ici, *Coccidinium* n. gen. *Legeri* n. sp. et *C. Duboscqui*, n. sp., sont des Protistes dont les stades végétatifs et de multiplication sont des Coccidies, tandis que leurs germes sont des Dinoflagellés du type syndinien. Elles constituent le type d'un ordre nouveau: les *Coccidinea* avec la famille des *Coccidinidae* (ou *coccidiniacae*) dont on peut dériver un phylum de souche péridinienne: les *Phytodinozoa*.

**Foxon G. E. H.** - Some Functional Considerations in the Origin and Evolution of the Arthropoda [*Considerationes de functione pro origine et evolutione in Arthropodis*]. Biol. Gen., XI, 2, 107-121. Wien & Leipzig (1935). **b - 1517**

From the study of the pre-oral portion of the head, blood system, appendages, organs of excretion and sense on ancestral *Arthropoda, Arachnida, Diplopoda, Insecta* and *Crustacea*, the A. points out three degrees of evolutional structure. The terrestrial origin of the Arthropoda is discussed and proved.

**Gregory W. K.** - A Study of the Evolution of natural Mechanisms [*Studium evolutionis quoad mechanisma naturalia*]. 2 pls., 302 figs., Trans. Amer. Phil. Soc., XXIII, 2, 75-481. Philadelphia (1933). **b - 1518**

Necessity of a synthesis of taxonomy and phylogeny with the study of the fish skull as a natural mechanism. Evolutional and comparative anatomical studies; the fish skull as a complete natural mechanism, analysis of the different parts of the skull and factors that have determined different types of skulls. Bibl. and index.

**Hubbs C. L.** - Racial and individual Variation in Animals, especially Fishes [*De variationibus ex individuo et ex stirpe praecipue in piscibus*]. Amer. Natural., LXVIII, 115-128. Boston (1934). **b - 1519**

A. proposes an experimental system on a genetical basis instead of the Linnean system collecting material for his study especially from natural fish populations and statistics of variation given by pisciculturists and commercial fishing establishments. The principal factors studied concern migration, phototaxis, distribution, relation between formation of races and the individual development as well as relation between variation and the chemical milieu.

**Kändler R.** - Rassenkundliche Untersuchungen an Plattfischen. 1. Variabilitätsstudien an den Flossenstrahlen- und Wirbelzahlen der Ostseeschollen [*Investigationes phylogeneticae de Pleuronectidis. Studia de variabilitate quoad radios pinnarum deque numeris vertebrarum in soleis Maris Nordici*]. 7 Abb., zahlr. Tab., Ber. Dtsch. Wiss. Komm. f. Meeresf., N. F., VII, 4, 381-493. Leipzig (1935). **b - 1520**

Rassenmerkmale oder Milieu-Einflüsse. Nordseerasse und Baltische Rasse. Material und Methoden. Die Schollen der eigentlichen Ostsee: Der Laichfischbestand, der Jungfischbestand, Charakteristik der Jahrgänge. Die Schollen der westlichen Ostsee. Die Schollen der Nordsee. Die Uebereinstimmung der Variationsreihen mit der Fehlerkurve. Der Mittelwert als « Rassetypus ». Das Verhalten von Mittelwert und Standard-Abweichung im Verbreitungsgebiet der Scholle. Die Wirbelanomalien. Nachtrag: Untersuchungen an der O-Gruppe des Jahres 1934 in der östlichen Ostsee.

**Kobayashi T.** - On the Phylogeny of the Primitive Nautiloids with Descriptions of *Plectronoceras liaotungense*, New Species, and *Iddingsia* (?) *shantungensis*, New Species [*De phylogenia Nautiloidorum primitivorum et novarum specierum* « *P. liaotungense* » *et* « *I. shantungensis* »]. 3 figs., 1 table, 1 pl., Jap. Journ. Geol. & Geogr., Trans., XII, 1/2, 17-26. Tokyo (1935). **b - 1521**

Description of these two new species of primitive Nautiloids, discussion on the genus *Plectronoceras* Ulrich and Foerste, 1933, the family *Plectronoceratidae* n. fam., and the phylogeny of the primitive nautiloids.

**MacBride E. W.** - An ancestral Habit in a Sea-Urchin [*De atavismo in* « *E. cordatum* »]. Nature, CXXXV, 3424, 995. London (1935). **b - 1522**

Habits of the regular Sea-urchins compared with those of the Heart-urchins. Exceptional case observed in a half- grown *Echinocardium cordatum* probably due to atavism.

**Ranson G.** - Contribution à l'interprétation objective des formes et de leurs rapports dans la classe *Hydrozoa* (suite) [*De interpretatione obiectiva morphologica deque relationibus inter Hydrozoa*]. Bull. Mus. Nat. Hist. Natur., 2e Sér., VII, 5, 288-292. Paris (1935). **b - 1523**

(V. pour le commencement, « Bull. Mus. Nat. Hist. Natur., 2ème Sér., VII, 5, p. 247, 1935). Dans cette dernière partie de son ouvrage l'A. examine les rapports morphologiques entre l'hydre et la méduse et affirme que le problème de l'évolution des espèces chez les Hydrozoaires se pose désormais sous la forme de l'acquisition progressive de nouveaux rapports protoplasmiques endodermo-ectodermiques au cours du cercle vital.

**Schenck H. G.** - Types of the Paleozoic Pelecypod *Nuculopsis gibbosa* (Fleming) [*Exemplaria tipica ex Palaeozoicis Pelecipodis. Species « N. gibbosa »*]. 6 figs., 3 tabl., Bull. Mus. R. Hist. Natur. Belgique, X, 40, 1-23. Bruxelles (1934). **b - 1524**

Discussion of the types of *N. gibbosa* (Fleming) on hand of material collected in the Royal Scottish Museum, Edinburgh, in the Musée Royale d'Histoire Naturelle de Belgique, and the British Museum. Author claims in his conclusions that « both paleontologic and zoologic facts prove that a phylogeny of the pelecypods based on the assumption that *Nucula* is the radice is not acceptable ». Bibl.

**Watson D. M. S.** - The Interpretation of Arthrodires [*De interpretatione quoad Arthrodira*]. 8 fig., 1 pl., Proc. Zool. Soc. London, 437-464. London (1934). **b - 1525**

On the basis of observations of the skeleton A. considers the *Arthrodira* as Gnathostomes.

# IV.

# PISCATUS

## GENERALIA

### *Instituta, Stationes, Laboratoria. Relationes et activitas.*

**Bachkirov K. A.** - Première année de travail de la pêche expérimentale organisée par TIKR (Institut Scientifique de pêche du Pacifique. (En russe). – 4 tabl., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 2-11. Moskva-Khabarovsk (1934). **b - 1526**

Bref compte rendu des travaux de l'Institut Scientifique de Pêche du Pacifique, avec référence spéciale aux expériences effectuées en vue de la détermination des meilleures méthodes de conservation du poisson, de la meilleure utilisation de la main-d'œuvre disponible, de la flottille de pêche, des engins de pêche, etc.

**Belknap J. C.** - Fisheries Experimental Stations a Real Aid to Industry. – Canad. Fisherm., XXII, 4, 9-10. Gardenvale, Que. (1935). **b - 1527**

Brief account of the work that has been done and is being done in Canada's Biological and Fisheries Experimental Station at Halifax and of the important help it secures to the fishing industry.

**Bell F. T.** - Bureau of Fisheries. – 2 fig., U. S. Dpt. Comm., 25-29. Washington, D. C. (1934). **b - 1528**

Brief description of the organization and activities of the U. S. Bureau of Fisheries, with especial regard to the aim of rehabilitating and conserving the fisheries, and the charge committed to the Bureau of the fur Seals of Pribilof Islands which is the largest herd in the world.

**Bessonow M. N. & Pravdin I. F.** - Bericht über die Tätigkeit der Wissenschaftlichen Forschungsstation für Fischereiwesen in Karelien in den Jahren 1931-1934. (Russ. Text, Dtsch. Rés.). – Tab., Rep. Karelia Scient. Res. Fish. Stat., I, 7-42. Leningrad (1935). **b - 1529**

Gründung und Tätigkeit der im Titel erwähnten Station, die als Filiale des Leningrader Wissenschaftlichen Ichthyologischen Forschungsinstituts 1931 in der Stadt Petrosavodsk entstanden ist. Programm der Arbeiten der einzelnen Sektionen. Kurze Wiedergabe der erzielten Ergebnisse. Der Arbeitsplan für die Jahre 1932-34.

**Bonde (von) C.** - Twelfth Annual Report of the Fisheries and Marine Biological Survey Division for the Year ending 31st December, 1934. (In Engl. & Dutch). – Tables, 3 charts o. t., Dpt. Comm. & Ind., Fish. Surv. Div., 6-120. Pretoria. Union South Africa (1935). **b - 1530**

I. Survey operations. Crawfish. Trammel-net investigations. Snoek investigations. D. Trawling investigations. Linefishing investigations. II. Deep Sea Fisheries (Trawling). III. Inshore fisheries. IV. Fishing harbours survey and development. V. Shore and laboratory research. VI. Appendices. Résumé of operations of the R. S. « Africana »; List of Stations of the R. S. « Africana ». Report on Preliminary fishing experiments with the trammelnet.

**Cameron A. T.** - Annual Report of the Biological Board. of Canada for the Year 1934. – Ann. Rep. Bd. Canada, 1934, 3-8. Ottawa (1935). **b - 1531**

Foundation and development of the Board; list of Stations and Sub-stations at present operated by the Board; problems solved and to be solved: refrigeration, fish oils, smoking of fish, discolouration of halibut, fish culture, trout, oyster culture, cod and haddock, tagging, sinking of gill nets, educational work.

**Carter N. M.** - Report of the Pacific Fisheries Experimental Station, Prince Rupert, B. C. for 1934. – Ann. Rep. Biol. Bd. Canada, 1934, Append. IV, 35-43. Ottawa (1935). **b - 1532**

Investigations: refrigeration, bacteriology, fish oils, miscellaneous. Relations with industry and cooperational activity. Education and public relations.

**Clemens W. A.** - Report of the Pacific Biological Station, Nanaimo, B. C. for 1934. – Ann. Rep. Biol. Bd. Canada, 1934, Append. III, 24-34. Ottawa (1935). **b - 1533**

Account of investigations carried out on fish culture, propagation of sockeye salmon, pink salmon, trout, pathology. Special attention has been paid to the study of measures for the detection of changes in the stock resulting from the intensity of fishing and of the life-history of the fish and shellfish; analysis concerning the comparative food-value of British Columbia fish, and investigation in physiology, biochemistry, anatomy and development.

**Dezuttere Ch.** - Conseil Supérieur de la Pêche Maritime (1932-1933). De Hooge Raad voor de Zeevisscherij. (En franç. & flam.). – Rapp. Pêche Marit., 1932-1933, 5-15. Bruxelles (1934). **b - 1534**

Composition et activité du Conseil Supérieur de la Pêche en 1932 et 1933. Le contingentement des importations de poisson. Les nouvelles installations de pêche à

Ostende. La pêche aux crevettes. Assistance financière du Gouvernement en faveur de la pêche à distance. Examens des mousses de pêche. Taxe de transmission sur le poisson de mer. Le mazout à bord des bateaux de pêche. Mesures minimales du poisson et de mailles des filets. Pêche dans les eaux territoriales franco-belges.

**Essipov V.** - Travaux de la Commission Poaire de l'Académie des Sciences. (En russe). – Sov. Sev., 4, 104-105. Moskva (1935). **b - 1535**

Deuxième liste bibliographique des travaux se référant à l'économie de la pêche dans le Nord de l'URSS.

**Finn D. B.** - Report of the Atlantic Fisheries Experimental Station, Halifax, N. S. for 1934. – Ann. Rep. Biol. Bd. Canada, 1934, 'Append. II, 18-23. Ottawa (1935). **b - 1536**

The investigations carried out deal with canning, fresh fish trade, refrigeration, fish smoking and drying, preparation of salt fish. Research on by-products, engineering problems, oceanography and sea fisheries, analytical and technical service, and educational activity of the Station.

**Hertling H.** - Die Biologische Anstalt auf Helgoland als Meeresstation und Lehrinstitut. – Biologe, III, 167-173. München (1934). **b - 1537**

**Hobson A. D.** - Director's Report. – Armstrong Coll. Dove Mar. Labor., Rep. for the Year ending July 31st. Third ser., No. 2, 3-8. Cullercoats, Northumb. (1934). **b - 1538**

Building and equipment. Investigations: Herring, Salmon, conditioned responses, pollution, faunistic survey, mussel survey. Publications and lectures.

**Kamprath L.** - Pioniere. – 2 Phot., Dtsch. Fisch.-Rundschau, 9, 191-192. Bremerhaven (1935). **b - 1539**

Einige Namen in Verbindung mit der Entwicklung der deutschen Fischwirtschaft.

**Kyte F. L.** - Fishermen's Views on Price Spreads Report. – Canad. Fisherm., XXII, 5, 17. Gardenvale, Que. (1935). **b - 1540**

Summary of the opinions of many of the leaders of the fishing industry in Nova Scotia in regard to the Report of the Commission (S.: the same issue of « Canad. Fisherm. », pp. 7–8).

**Le Danois Ed.** - Rapport sur le fonctionnement de l'Office des Pêches Maritimes pendant l'année 1934. – Rev. Trav. Off. Pêches Marit., VIII, 1, 1-23. Paris (1935). **b - 1541**

Croisières du navire océanographique « Président–Théodore–Tissier ». Travaux des Laboratoires de l'Office: Recherches hydrologiques, recherches biologiques, recherches techniques. Biologie ostréicole, conchylicole et contrôle sanitaire. Conseils Internationaux.

**Leim A. H.** - Report of the Atlantic Biological Station, St. Andrew, N. B. for 1934. – Ann. Rep. Biol. Bd. Canada, 1934, Append. I, 9-17. Ottawa (1935). **b - 1542**

Investigations on cod, haddock, herring, lobster, oyster, scallop and eelgrass as well as on the rearing of trout and salmon.

**Malpas A. H.** - Administration Report of the Marine Biologist for the Year 1934. – 4 pp., Ceylon Govmt. Press. Colombo (1935). **b - 1543**

Pearl fishery (Gulf of Manar). Window–pane oyster fishery (Lake Tamblegam). Chank fisheries. The local fishing industries. Miscellaneous.

**Ross C.** - Zwischen USA und dem Pol. Durch Kanada, Labrador und Antarktis. – 71 Abb., 1 Karte, 310 S. F. A. Brockhaus. Leipzig (1934). **b - 1544**

Ein Reisebericht, in welchem, ausser der geschichtlichen Entwicklung des Landes, auch der heutige Stand der Fischerei im Kanada, Labrador und der Arktis geschildert ist. S. auch: « Kabeljau begründen ein Weltreich. . . . Fisch als Schicksal », mit Genehmigung des Verl. F. A. Brockhaus in « Fischmarkt », n. 10, 269-273, 1934, veröffentlicht.

**Thompson H.** - Introduction (to the Annual Report 1934). – Rep. Newfoundl. Fish. Research Labor., II, 3, 3-14. Newfoundland (1935). **b - 1545**

Brief account of the latest development of the Newfoundland Fishery Research Laboratory transferred in 1934 to the Department of Natural Resources under the Commission of Government. Expansion of the activities of the Laboratory: equipment for biological testing of cod-liver oil and new investigation on its possible applications; report of the experimental canning work undertaken by the Laboratory and on the biological work during the cruise of the s. s. « Cape Agulhas »; tagging operations on codfish; collecting of biological material from the salmon runs on the east coast of Newfoundland.

**Tillessen** - Die Aufgaben der Hauptvereinigung der deutschen Fischwirtschaft. – Dtsch. Fischwirt., II, 47, 873-875. Berlin (1935). **b - 1546**

Vortrag, gehalten auf dem dritten Reichsbauerntag in Goslar: die bisherige praktische Aufbauarbeit der Hauptvereinigung und ihre weiteren Ziele.

**Truitt R. V.** - Opportunity. – 1 photo. Fish. Gaz., LII, 5, 15. New York (1935). **b - 1547**

Summary of the progress and advances made during the past fifteen years in the science pertaining to the shellfisheries in the United States, which serves as introductory remarks to the invitation to the Joint Convention of the National Shellfisheries Association and the Oyster Growers and Dealers Association of North America, at Washington May 20, 21, 22, 1935.

**Truitt R. V.** - Report of the Sub-Committee on Scientific Investigations of the Fisheries Advisory Board. – Science, LXXXII, 2123, 227-228. New York (1935). **b - 1548**

General program. Federal Fishery research. Fishery research by State agencies. Stimulation of research by private agencies.

**Verschelde R.** - Commission de Mariculture et de Mytiliculture (1932-1933) - Commissie voor Mossel – en Zeevischteelt (1932-1933). (En franç. & flam.). – Rapp. Pêche Marit., 1932-1933, 17-23. Bruxelles (1934). **b - 1549**

Composition de la Commission et compte-rendu des questions qui ont été prises en considération au cours du 1932 et 1933: Revision de l'Arrêté Royale concernant la cueillette du naissain de moules sur la côte belge. Existe-t-il sur notre littoral un endroit convenant à la culture intensive de la moule ? Est-il possible de faire renaître dans nos eaux la culture huîtrière ? Moyen d'empêcher la destruction du poisson immature. Pêche du hareng en dehors de la limite des eaux territoriales françaises. Situation et avenir du Braakman. Recherches d'un banc de moules existant probablement sur notre côte Ouest. Encouragement d'expériences avec des engins de pêche nouveaux.

**Wiese E.** - Neues Leben in der Kleinen Hochseefischerei. – 1 Tab., Dtsch. Fischwirt., II, 8, 135-136. Berlin (1935). **b - 1550**

Kurzer Bericht über die Entwicklung der kleinen Hochseeficherei Deutschlands im Jahre 1934, das endlich einmal als ein Jahr des Aufbaus und der Gesundung betrachtet werden kann.

**Zenkovitch B. A. & Erdeli A. S.** - Quelques résultats des travaux de l'Institut de l'Economie de la Pêche du Pacifique (TIKR) pendant l'année 1934. (En russe). – Rybn. Choz. Daljn. Vostoka, XIII, 1, 11-34. Khabarovsk (1935). **b - 1551**

Compte rendu des travaux de l'Institut dans le domaine de (*a*) la biologie des principales espèces commerciales du poisson de l'Extrême-Orient, (*b*) de l'organisation et de la technique de la pêche, (*c*) de la chimie et de la technique du traitement des produits de pêche, (*d*) de l'océanographie, (*e*) de l'économie de pêche et (*f*), des recherches scientifiques auxiliaires.

**Comité du Parti communiste pour l'Extrême Orient** - Sur la préparation à la pêche de 1935. (En russe). – Rybn. Choz. Daljn. Vostoka, XIII, 1, 5-8. Khabarovsk (1935). **b - 1552**

Résolution adoptée au cours de la Session Pleinière du Comité, le 27-30 Mars 1935, concernant le programme des travaux en vue de la saison de pêche 1935, leur organisation, leur distribution, avec référence spéciale à l'amélioration de la flotte et des engins de pêche.

**Deutsche Wissenschaftliche Kommission für Meeresforschung** - Berichte der Deutschen Wissenschaftlichen Kommission für Meeresforschung. – N. F., 126 Abb., 808 S., VI, 1931-1933; VII, 1934-1935. Akad. Verlagsg. Leipzig (1935). **b - 1553**

Die Berichte enthalten eine grosse Zahl faunistischer und tiergeographischer Untersuchungen aus der Nord–und Ostsee.

**Division of Fish & Game, California** - Reports. – tabl., California Fish & Game, XXI, 4, 351-360. San Francisco, Calif. (1935). **b - 1554**

Reports expressed in tables concerning economical conditions and fresh fish landings for April-June 1935.

**Fisheries Commissioner** (of British Columbia). Fisheries Commissioner's Report for 1934. – 2 tabl., Rep. Comm. Fish., 1934, 5-19. Victoria B. C. (1935). **b - 1555**

Value of Canadian Fisheries and the standing of Provinces, 1933. Persons engaged and capital invested. The species and value of fish caught in British Columbia. Salmon-canning industry. Halibut production and investigation. Salmon-trolling production of mild-cured salmon, dry-salt salmon, fish meal and oil investigation. Whale reduction. Miscellaneous reduction. Dry-salt herring. Digest of Statistical Report on sockeye fishing and canning industry in rivers inlet. Digest of the herring-fishery of British Columbia, past and present. Appendices.

**Fishery Board for Scotland** - Fifty-Third Annual Report of the Fishery Board for Scotland Being for the Year 1934. – 5 graphs, 19 tabl., 6-92., H. M. Stat. Off. Edinburgh (1935). **b - 1556**

Means of capture and persons engaged. The herring fishery. Fisheries other than herring. Miscellaneous. Marine Superintendence. Harbours. Scientific investigations. Salmon fisheries. Appendices: Harbour improvement schemes. Salmon fishery close time. Chairmen and clarks of Salmon District Boards.

**Institut de Recherches Scientifiques Polaires** - Travail et activité. (En russe). – Za Rybn. Ind. Sev., 12, 16-18. Leningrad (1934). **b - 1557**

Compte rendu des travaux des sections particulières de l'Institut pour les recherches scientifiques polaires à Mourmansk pendant 1934. Le but principal de l'activité de l'Institut est l'assistance, à l'industrie de la pêche, par ses conseils. L'Institut s'occupe surtout de la découverte des fonds de pêches, de la technique de la pêche et du traitement industriel des poissons comestibles et des phoques de la Mer de Barents.

**Institut für Seefischerei** - Jahresbericht für 1934 des Instituts für Seefischerei. – Dtsch. Fisch.-Rundschau, 14, 319-320. Bremerhaven (1935). **b - 1558**

Bericht über die zahlreichen Untersuchungen und Versuche, die in der Vollkonservenabteilung, dem Fischindustriedienste, der bakteriologischen, und der fischereibiologischen Abteilungen während des Jahres 1934 ausgeführt worden sind, sowie über die veranstalteten Vorträge und das Mitteilungsorgan des Instituts.

**Newfoundland Division of Fishery Research** - Annual Report Year 1934 (April, 1934-March, 1935). – 10 figs., 9 charts. Rep. Newfoundl. Fish. Research Labor., II, 3, 7-79. Newfoundland (1935). **b - 1559**

Continuation of the Reports previously issued by the Fishery Research Commission. Hydrographic and biological investigations. Technical investigations. Appendices: A. Log of «Cape Agulhas» operations. B. Hydrographic data. C. Two new subspecies of *Lumpenus lampetraeformis*. D. Fourth list of fishes in the Newfoundland fishing area.

**North American Council on Fishery Investigations** - Summary of Activities During 1933. – Rapp. Pr.-Verb. Cons. Expl. Mer, XCIII, Rapp. Atlantique 1933, 33-36. Copenhague (1935). **b - 1560**

Administrative Report. Report on subjects of investigation: Hydrology, Chemistry of sea water, plankton, cod, haddock, mackerel, herring, salmon. Fisheries Statistics.

**Office des Pêches Maritimes** - Extrait du procès-verbal de la séance du Bureau du Conseil d'Administration de l'Office des Pêches Maritimes en date du 26 Janvier 1935. – Rev. Trav. Off. Pêches Marit., VIII, I, 39-42. Paris (1935). **b - 1561**

Procès-verbal concernant les mesures à prendre pour remédier à l'appauvrissement des fonds de pêche.

**Secretary of Commerce.** - Bureau of Fisheries. – 1 tabl., Ann. Rep. Bur. Fish., 1934, 77-101. Washington D. C. (1934). **b - 1562**

Activity of the Bureau of Fisheries. National Planning Council (of Commercial and Game Fish Commissioners). Cooperation with States and other federal agencies. Conservation of whales. Legislation. Construction activities. Statistical, marketing, and technological investigations. Biological fisheries investigations. Alaska fisheries and furseal services. Propagation and distribution of food and game fishes. Aquarium. Black bass and anglers division. Vessels. Appropriations.

**Secretary of Commerce** - Work of the Bureau of Fisheries. – Fish & Oyst. Rep., XVI, 5, 5 & 8-9, & 17. Tampa, Fla. (1935). **b - 1563**

Reprinted from the Annual Report of the Secretary of Commerce and dealing with actual conditions of the fishing industry, the National Planning Council (Commercial and Game Fish Commissioners), the cooperation with States, the construction activities of the Office and its marketing investigations.

**K.** - Die Tätigkeit der Deutschen wissenschaftlichen Kommission für Meeresforschung. – 1 Abb., Fischmarkt, III, 5, 116-123. Cuxhaven (1935). **b - 1564**

Untersuchungen über den Hering, den Kabeljau des Barentsmeeres und die Scholle in Nord- und Ostsee. Versuche zur künstlichen Erbrütung von Plattfischen. Die Flunderfischerei der Ostsee.

**S.** - Wieder ein blauer Jahresbericht! – Dtsch. Fischwirt., II, 34, 657-658. Berlin (1935). **b - 1565**

Kurze Zusammenfassung mit begleitenden Beobachtungen des vom Reichs-und Preussischen Ministerium für Ernährung und Landwirtschaft herausgegebenen Berichts über die Deutsche Fischerei im Jahre 1934.

**W. L. S.** - Notes from the State Fisheries Laboratory. – California Fish and Game, XXI, 3, 264. Sacramento (1935). **b - 1566**

Tagging experiments, trips and cruises, tabulation of fish catch data.

**An.** - Fraser Report to Stevens Committee on Atlantic Fish Trade. – Canad. Fisherm., XXI, 7, 7-9. Gardenvale, Que. (1934). **b - 1567**

Summary of the report by L. W. Fraser appointed to investigate conditions in the Atlantic Fish trade, in which he advocates minimum prices to fishermen and Board to eliminate cut-throat competition.

**An.** - C. F. A. Established Twenty Years Ago. – Canad. Fisherm., XXII, 3, 8. Gardenvale, Que. (1935). **b - 1568**

Brief account of the foundation and activity of the Canadian Fisheries Association, founded on February 15th, 1915.

**An.** - The Price Spreads Report. Several Factors Ignored in Recommendations. – Canad. Fisherm., XXII, 5, 7-8. Gardenvale, Que. (1935). **b - 1569**

Criticism of the «Fisheries» section of the Report elaborated by the Price Spreads Commission which suggests the creation of a Fisheries Control Board and the application of other measures in order to improve the actual condition of the Canadian fisheries.

**An.** - Werkstätten der Fischerei-Wissenschaft. – Dtsch. Fischwirt., II, 21, 451-453; 22, 472-473. Berlin (1935). **b - 1570**

Gründung und Entwicklung der wissenschaftlichen Forschung im Gebiete der Fischerei, mit besonderer Berücksichtigung der folgenden Forschungsanstalten: des Instituts für Seefischerei in Wesermünde mit dem Fischerei-Museum, des Fischerei-Instituts in Helgoland, der fischereibiologischen Abteilung des zoologischen Staatsinstituts zu Hamburg, des Forschungsinstituts für die Fischindustrie in Altona, der Deutschen Seewarte, der Preussischen Kommission zur wissenschaftlichen Untersuchung der deutschen Meere, der biologischen Laboratorien der Preussischen Oberfischmeisterämte, der Seefischereistation Neukuhren, des Deutschen Seefischerei-Vereins, der Deutschen Wissenschaftlichen Kommission für Meeresforschung, des Instituts für Meereskunde in Berlin und der Forschungsanstalten für die Binnenfischerei.

**An.** - National Oyster Institute Organized. – Fish & Oyst. Rep., XVI, 10, 16. Tampa, Fla. (1935). **b - 1571**

Information on the formation of the Oyster Institute of North America on August 5th, 1935, for the purpose of promoting high standards of quality and service within the oyster industry and increasing the consumption of fresh oysters.

**An.** - Fishery Advisory Committee Appointed by Government. – Fish. Gaz., LII, 3, 5 & 18; 6, 5. New York (1935). **b - 1572**

Information on the appointment of a Fishery Advisory Committee which represents the first step in the plans elaborated by the U. S. Government in the hope to restore the American fishing industry to a normal degree of prosperity. Some recommendations of the Committee concerning methods of coordination of controlling order to eliminate wasteful methods of fishing; allocation of $ 500.000 for marketing and research study; teaching the dietary value of fish in schools.

**An.** - International Council for Exploration of the Sea. – Fish. Gaz., LII, 9, 8. New York (1935). **b - 1573**

Brief summary of the work performed and decisions taken by the International Council for Exploration of the Sea, especially concerned with haddock-fisheries and large-mesh laws.

**An.** - Marine Biology in Ceylon. – Nature, CXXXVI, 3438, 471. London (1935). **b - 1574**

Short note on a scheme for the establishment of a fisheries research station with an aquarium in Colombo.

## *Congressus – Conventus – Expositiones – Bibliographia piscatoria.*

**Bouckaert D.** - Le XVI^e^ Congrès International de Navigation, Bruxelles, 1935. – Ann. Trav. Publ. Belgique, XXXVI, 5, 798-805. Bruxelles (1935). **b - 1575**

Bref compte rendu du Congrès convoqué en Septembre 1935 à Bruxelles; nombre des adhérents; séance solennelle d'ouverture; les travaux des sections; visite des installations du port de pêche d'Ostende.

**De Angelis R.** (A cura di) - Atti del Convegno di pesca meccanica a Bari, 7 settembre 1934-XII, organizzato dalla Lega Navale Italiana e dal Ministero dell' Agricoltura e delle Foreste. – 89 pp., Soc. Tip. A. Manuzio. Roma (1934). **b - 1576**

Relazioni dei congressisti.

**Dvořák B.** - Druhá Mezinárodní konference ofr ybářské propagaci ve Vidni. – Věstn. Českoslov. Akad. Zemědělské, XI, 10, 730-731. Praha (1935). **b - 1577**

Bref compte-rendu des travaux de la Conférence réunie à Vienne du 5 au 7 Mai 1934.

**Essipov V.** - Littérature sur l'économie de la pêche du Nord de l'URSS. (En russe). – Za Rybn. Ind. Sev., 6, 47-48; 10, 47-48. Leningrad (1934). **b - 1578**

Liste bibliographique contenant des titres d'ouvrages russes, suivis d'annotations.

**Fischer E.** - Die wichtigste Fischereiliteratur aus dem Jahre 1933. A. Seefischerei. – Jahresber. Dtsch. Fisch. 1933, 245-248. Berlin (1934). **b - 1579**

**Jackson C. E.** - A National Fishery Congress. – Fish & Oyst. Rep., XVI, 3, 3 & 11. Tampa, Fla (1935). **b - 1580**

Preliminary account of the program and aims of a National Fishery Congress of the United States; its plan as elaborated and discussed between the U. S. Bureau of Fisheries and the representatives of the fishery industry. The Congress is supposed to be held in spring 1935 at Washington.

**Mann F. A.** - The Association of Pacific Fisheries Annual Convention. – Fish. Gaz., LII, 13, 30. New York (1935). **b - 1581**

Brief account of the meeting held in December 1935, at New York.

**Peace H. L.** - Florida Fisheries Association Organized at Orlando Meeting to Aid State Industry. – Fish & Oyst. Rep., XVI, 8, 3 & 10. Tampa, Fla. (1935). **b - 1582**

Report of the foundation of a new Association, which constitutes a consolidation of old south fisheries association and Florida Wholesale Fish Association, on June 24th, 1935, with a view to promote the interests of both dealers and fishermen.

**Schiemenz K.** - Das « Handbuch der Seefischerei Nordeuropas ». – Dtsch. Fischwirt., II, 22, 469-470. Berlin (1935). **b - 1583**

Besprechung der erschienenen Bänder des von der E. Schweizerbart'schen Verlagsbuchhandlung in Stuttgart herausgegeben « Handbuches der Seefischerei Nordeuropas » welches als ein vortrefflicher Vermittler fischereilichen Wissens angesehen werden kann.

**Canadian Fisheries Association** - Resolutions Passed at Canadian Fisheries Meet. – Canad. Fisherm., XXII, 10, 14. Gardenvale, Que. (1935). **b - 1584**

Text of the resolutions concerning the salt fish industry and the publicity campaign voted by the 20th Annual Meeting of the Association at Montreal, September 23rd, 1935.

**Comité du Parti communiste pour l'Extrême Orient** - Sur la réalisation des résolutions de la Session Pleinière du Comité Régional du mois de Mars, concernant la préparation à la campagne de pêche. (En russe). – Rybn. Choz. Daljn. Vostoka, XIII, 1, 8-10. Khabarovsk (1935). **b - 1585**

Décisions prises par le Comité du Parti Communiste Bolchévique de la région Primorskaja et par le Conseil Communal de la ville de Vladivostok sur les mesures à appliquer en vue d'une préparation et exécution adéquates du plan de la campagne de pêche établi pour 1935.

**Fishing Gazette** - Program Joint Convention National Shellfisheries Ass'n. and the Oyster Growers and Dealers Ass'n. of North America, Inc., Washington, May 20, 21, 22, 1935. – Ils., Fish. Gaz., LII, 5, 11-22. New York (1935). **b - 1586**

Program of the Convention; greetings by Howard W. Beach, President; account of the advances in the science pertaining to the shellfisheries, by R. V. Truitt; list of papers to be presented; comments of oyster producers and dealers concerning the problems of the shellfisheries.

**An.** - Almanaque del Pescador. Guia del Pescador Moderno. – 126 pp. Madrid (1935). **b - 1587**

**An.** - Annual Meeting of Canadian Fisheries Association. – Canad. Fisherm., XXII, 8, 9. Gardenvale, Que. (1935). **b - 1588**

Brief program of the meeting held on Monday, September 23rd, 1935.

**An.** - Canadian Fisheries Association's 20th Annual Meeting. – Canad. Fisherm., XXII, 10, 9-10. Gardenvale, Que. (1935). **b - 1589**

Brief account of the meeting held in Montreal on September 23rd, 1935.

**An.** - Die Fischwirtschaft auf der 2. Reichsnährstands-Ausstellung. – 1 Fig., Dtsch. Fisch.-Rundschau, 11, 237-242. Bremerhaven (1935). **b 1590**

Parade der deutschen Fischkonservenindustrie. Plan der Ausstellung. Die Prämierung der Fischkonserven.

**An.** - Joint Convention of The National Shellfish Association and the Oyster Growers & Dealers Association of North America, Inc. – Fish & Oyst. Rep., XVI, 6, 4-5. Tampa, Fla. (1935). **b - 1591**

Brief account of the work of the Convention completed by a list of papers presented. The Convention has been held on May, 20, 21, 22, 1935 at Washington D. C.

**An.** - Pound Nets Operators to Meet War Department Officials. – Fish. Gaz., LI, 13, 6. New York (1934). **b - 1592**

Some comments of changes in the regulations affecting fish traps between Montauk and Cape Charles, with special regard to the regulations governing the lighting of pounds and submarine nets.

**An.** - Oystermen meet. – 2 photos. Fish. Gaz., LII, 6, 10-11. New York (1935). **b - 1593**

Brief account of the 1935 Convention of oystermen held at Washington, May 20-22, 1935; summary of some decisions taken and problems considered.

## *Expeditiones oceanographicae pro piscatione.*

**Belloc G.** - Les croisières de l'Office Scientifique des Pêches. – 13 fig., Mém. Off. Pêches Marit. (Sér. Spéc.), 9: Manuel Pêches Marit. Franç., 1, 117-130. Paris (1935). **b - 1594**

Compte-rendu des croisières de l'Office Scientifique des Pêches, dont les premières datent d'un demi-siècle, avec référence spéciale aux caractéristiques et à l'outillage des navires utilisés dans ce but, « Français »; « Pourquoi-Pas ? »; « Manche »; « Tanche »; « Président Théodore Tissier ».

**Breder C. M. Jr.** - The Oceanographic Vessel « Atlantis » in the West Indies. – 1 map., 14 figs. Bull. New York Zool. Soc., XXXVII, 2, 31-39. New York (1934). **b - 1595**

Popular account of the studies undertaken on flying Fishes. First record of *Oxyporhamphus* in the Caribbean Sea.

**De Buen F.** - Las pescas realizadas durante las Campañas del Instituto Español de Oceanografià. – Notas y Resùm., Inst. Españ. Oceanogr., ser. II, 79, 1-54. Madrid (1934). **b - 1596**

Las campañas organizadas por el Instituto Español de Oceanografía en las cuales se efectuaron pescas. Camino de cada una de estas campañas. Medios empleados en la pesca. Registro de pescas.

**Derjughin K. M.** - Pazifische Expedition des Hydrologischen Staatsinstituts im Jahre 1932. (In Russ., Dtsch. Rés.). – 1 Karte, 4 Taf., Tab., Expl. Mers URSS, 19, 5-35. Leningrad (1933). **b - 1597**

1) Organisation der Expedition; 2) Kurze Uebersicht der Arbeiten während der zwei Fahrten des Schiffes « Rossinante » im Frühjahr 1932 in das Japanische Meer; hydrologische, fischereiwissenschaftliche und biologische Untersuchungen; 3) Allgemeine Betrachtungen über das Plankton des Seebusens Peter des Grossen; 4) Allgemeine Ergebnisse der Arbeiten der Expedition.

**Essipov V.** - Biological Expedition of the Arctic Institute to the River Obj. (In Russ. & Engl.). – Bull. Arct. Inst., 8/9, 306 & 340-341. Leningrad (1934). **b - 1598**

Brief program of the work of the expedition sent out in order to carry out fishery investigations. Study of the life history and whaling conditions of the white whale and hunting investigation in the Gydoyama Gulf, in the middle part of the Obj Bay, in the Malygin Strait, in the mouth of Jagoda-Jagia River, and in the region of Cape Taran and Shokalsky Island.

**Fisheries & Marine Biological Survey. Union South Africa** - List of Stations of the R. S. « Africana ». (In Engl. & Dutch). – Tables, 12th Ann. Rep. Fish. & Mar. Biol. Surv., 109-110. Pretoria. Union South Africa (1935). **b - 1599**

Statistical statements on the surveys carried out on Ape area (August-December 1934), off Martha Point and in the vicinity of Walvis Bay.

**An.** - The Scientific Work of the Party on the Motor-Sailing Boat « Arctic » of the Biological Expedition to Novaja Zemlja. (In Engl.). – Bull. Arct. Inst., 3/4, 118-119. Leningrad (1935). **b - 1600**

Brief account of the experimental fishing, the observations on sea-Mammals, hydrobiological, hydrological work and other investigations carried on off the Kara coast of Novaja Zemlja.

**An.** - Expedition to the Murman Sent Out by the Institute of Economics and Socialistic Organization of Agriculture of the Lenin Academy of Agricultural Sciences of the URSS. (In Russ. & Engl.). – Bull. Arct. Inst., 8/9, 307 & 343. Leningrad (1934). **b - 1601**

Brief information on the expedition sent out in order to investigate the possibility of using marine products in agriculture.

**An.** - Vermessungsschiff « Meteor » im Dienste der Fischerei. – 1 Abb., 1 Karte, Dtsch. Fisch.-Rundschau, 12, 266-268. Bremerhaven (1935). **b - 1602**

Kurzer Abschnitt aus dem Buche des Kommandanten des « Meteor »: Fregattenkapitän F. W. Kurze « Nordmeerfahrten der Reichsmarine », in welchem der unmittelbare praktische Wert der an Bord des « Meteor » ausgeführten wissenschaftlichen Arbeiten klargelegt wird. Dem Abschnitte ist eine kurze Schilderung der Tätigkeit des « Meteor » hervorgeschickt.

# PISCATUS OECONOMIA. LEGISLATIO

## *Ratio productionis, industriae et commercii.*

**Bähr O.** - Beachtenswertes für die gesamte Fischwirtschaft. – 1 Tab., Dtsch. Fischwirt., II, 32, 628-630; 36, 692; 41, 775-777. Berlin (1935). **b - 1603**

An Hand von Materialien aus verschiedenen Veröffentlichungen, wird der Fischfang, mit besonderer Berücksichtigung der Heringsfischerei in Island und im Barentsmeere, ihrer Industrie und Lagerung geschildert. Die Arbeitsbedingungen der französischen Sardinenindustrie und der Fischhandel, speziell der von Fischkonserven.

**Bisi T.** - La cooperazione e lo sviluppo della pesca. – Atti Conv. Pesca Meccan. (Bari, 7 settembre 1934-XII), 63-69. Roma (1934). **b - 1604**

Si esamina il problema peschereccio nazionale dal punto di vista cooperativistico e si auspica l'affermazione della pesca a tipo industriale in piena armonia con la forma economica cooperativa.

**Eichelbaum** - Zur Hauptvereinigung der deutschen Fischwirtschaft. – Dtsch. Fischwirt., II, 17, 377-378. Berlin (1935). **b - 1605**

Organisatorische Einzelheiten nach der vorgesehenen Satzung der Hauptvereinigung, in welcher die deutsche Fischwirtschaft infolge einer Regierungsverordnung zusammengeschlossen worden ist.

**Macfadden B.** - Fishery Advisory Committee Functions and Aims. – Fish. Gaz., LII, 7, 5 & 12. New York (1935). **b - 1606**

Organisation and program of work of the Committee, appointed by the Secretary of the U. S. Department of Commerce, on March 25, 1935.

**Marozzi A.** - Le deliberazioni della Corporazione della zootecnica e della pesca. – Giorn. Agric. della Dom., 3, 21. Roma (1935). **b - 1607**

**Roper D. C.** - Charting Our Fish Industry. – Fish & Oyst. Rep., XVI, 6, 3, 6-7 & 10. Tampa, Fla. (1935). **b - 1608**

Presented by the Secretary of Commerce before the Fishery Advisory Committee, May 6th, 1935, and dealing with the solution of many of the outstanding problems of the fisheries, falling in the general field of conservation and management of the supply and in the realm of industry and commerce.

**Schnakenbeck W.** - Fischwirtschaft und Tierschutzvereine. – Fischmarkt, III, 10, 259-263. Cuxhaven (1935). **b - 1609**

Kommentar der Ausführungsbestimmungen zum Tierschutzgesetz des Dritten Reichs, welche sich hauptsächlich auf die Haltung und den Verkauf lebender Fische, sowie auf die Verwendung lebenden Köders beziehen.

**An.** - Arbeitsfront und Fischindustrie (Fortsetzung folgt). – Dtsch. Fisch.- Rundschau, 7, 144-146. Bremerhaven (1935). **b - 1610**

Wiedergabe der grossen Ansprache des Reichsfachgruppenwalters für die Fischindustrie der Reichsbetriebgemeinschaft Nahrung und Genuss, an der grossen Kundgebung der Altonaer Fischindustrie über die Regelung derselben in Bezug auf die Arbeitskraft.

**An.** - Vorbildliche Gemeinschaftsarbeit. – 2 Diagr., Dtsch. Fisch.- Rundschau, 12, 268-270. Cuxhaven (1935). **b - 1611**

An Hand des 2. Jahresberichts der « Deuko » (Deutsche Kontrollgesellschaft der an der Küstenfischerei interessierten Futtermittelwirtschaft G. m. b. H.) wird die vorbildliche Tätigkeit der oben erwähnten Gesellschaft, welche der

Organisation der Garnelen- (Krabben) -Verwertung gewidmet ist, geschildert, mit besonderer Berücksichtigung der Rolle der Gesellschaft in der Krabbenfischerei der Nordsee, der Einführung von Schonzeiten in diese Fischerei, der Sicherheitsstellung der an der Krabbenfischerei beteiligten alten Fischer, der Ausbildung der Jungfischer, der Garnelentrocknungsindustrie, des Garnelen-Grosshandels und der zusätzlichen Einfuhr zur Sicherung der deutschen Futtergarnelen-Industrie.

**An.** - Gründung einer Exportberatungsstelle in Hamburg. – Dtsch. Fisch.- Rundschau, 14, 317-318. Bremerhaven (1935). **b - 1612**

Abdruck des Schreibens der Exportberatungsstelle über ihre Ziele mit einem Kommentar der Schriftleitung von der « Dtsch. Fisch.-Rundschau ».

**An.** - Wie die Fischerei wirklich ist. – 2 Aufnahm., Dtsch. Fisch. - Rundschau, 17, 384. Bremerhaven (1935). **b - 1613**

Notiz über von dem Mahler L. Diefenbach für die Marktverwaltung des Fischmarktes Wesermünde geschaffene Bilder, welche in eindringlicher Weise die Arbeit deutscher Fischerleute schildern.

**An.** - Ein Beispiel für die Vielseitigkeit der deutschen Fischindustrie. – 1 Tab., Dtsch. Fischwirt., II, 365-367. Berlin (1935). **b - 1614**

Eine Tabelle mit Zahlenangaben, aus welcher nicht nur die Buntheit des Angebotes, sondern auch die der Preise herauskommt, wie sie in der Fischindustrie vorkommen; die Preise beschränken sich allein auf Marinaden und Vollkonserven.

## *Piscatorum activitas – Mercedes – Adsistentia – Tutela et infortunia – Scholae.*

**Bahr K.** - Seefischerjugend im Reichsberufswettkampf. – Dtsch. Fischwirt., II, 18, 393-394. Berlin (1935). **b - 1615**

Reichsberufswettkampf in der Fachgruppe Fischerei des Jahres 1935.

**Boehden H.** - Schulung in der Ringwaden-Heringsfischerei. – Dtsch. Fischwirt., II, 35, 673-674. Berlin (1935). **b - 1616**

Eine neue Fischereischule in Altona-Neumühlen mit Unterricht in der Ringwadenfischerei, welche neue Arbeitsgebiete für die erwerbslosen deutschen Fischer erschliessen kann.

**Brunelli G.** - Organisation de radiocommunication pour la prévision du temps. (En italien, rés. franç.). – VII^e^ Congr. Int. d'Aquicult. & de Pêche, Paris 1931, Communications, III, 30-31, Impr. du Loiret. Orléans (1935). **b - 1617**

L'installation d'appareils radiophoniques devrait être obligatoire sur tous les navires sans exception; ce qui comporterait aussi l'organisation d'un service particulier officiel de prévision du temps.

**Dezuttere C.** - Les assurances sociales des marins-pêcheurs. – VII^e^ Congr. Int. Aquicult. & Pêche, Paris 1931, Communications, III, 104-112, Impr. du Loiret. Orléans (1935). **b - 1618**

Exposé de l'organisation d'assurance - accidents des marins - pêcheurs du Belgique, comparaison avec les systèmes en Hollande, Allemagne et Angleterre. La Caisse de secours des marins-pêcheurs d'Ostende.

**Eichelbaum** - Die Wirkung der Förderungsmassnahmen der Reichsregierung für die Fischerei. – 4 Tab., Mitt. Deutsch. Seef.- Ver., XXXXIX, 6, 230-233. Berlin (1934). **b - 1619**

Kurzer Bericht über die Krise, in welche die deutsche Fischerei geraten ist, und die das Eingreifen der Reichsregierung gebieterisch gefordert hat. Ergebnisse der neuen Schutzmassnahmen vom 1. März 1933. Erhöhung der Fänge! Zunahme der deutschen Salzheringsproduktion. Einwirkung des Zollschutzes auf die Einfuhrzahlen. Steigerung des Verbrauchs an Fischen und Fischwaren in Deutschland.

**Fick H.** - Zum hundertjährigen Bestehen der Unterelbe- Versicherungskasse. – Fischmarkt, III, 1, 9-15. Cuxhaven (1935). **b - 1620**

Festversammlung der Kasse, in welcher ein geschichtlicher Bericht über die Kasse, von der Gründung an, vorgetragen worden ist.

**Fick H.** - Ueber die Tätigkeit der Finkenwärder Elbfischer im Jahre 1934. – Fischmarkt, III, 4, 101-103. Cuxhaven (1935). **b - 1621**

Fangverhältnisse und -ergebnisse: die Wattfischerei, die Elbfischerei, Erscheinungen des schlechten Wassers, die Plage der Wollhandkrabbe.

**Gott P.** - Co-Operative Action in Trade Associations. – 1 photo. Fish. Gaz., LII, 9, 10-11. New York (1935). **b - 1622**

Author shows that the fishing industry can find solutions to its problems by co-operative actions in trade associations, illustrating the importance of the rôle of cooperation in the development of marketing operations.

**Hilker C.** - In der ersten Hochseefischereischule Deutschlands. – 2 Abb., Dtsch. Fisch.- Rundschau, 10, 213-215. Bremerhaven (1935). **b - 1623**

Bericht über einen Besuch bei der ersten Fischereischule Deutschlands an Bord des Hapag-Dampfers « General Mitre », Entstehung und Lehrplan der Schule.

**Hilker C.** - 70 Jahre deutsches Seerettungswesen. – Dtsch. Fisch.- Rundschau, 12, 265-266. Bremerhaven (1935). **b - 1624**

Vf. zeichnet in grossen Zügen die Entwicklung der am 29. Mai 1865 in Kiel gegründeten « Deutschen Gesellschaft zur Rettung Schiffbrüchiger » auf.

**Orlandini O.** - Gli equipaggi ed i salari della pesca. – Atti Conv. Pesca Meccan. (Bari, 7 settembre 1934-XII), 74-89. Roma (1934). **b - 1625**

Viene considerata la condizione degli equipaggi e dei salari della pesca italiana, per richiamare l'attenzione delle forze produttive di questa attività sui problemi che interessano il miglioramento del livello economico dell'attività stessa, con conseguente maggior respiro delle imprese e migliore trattamento economico-sociale degli equipaggi.

**Thomas Wynn** - Instruction in Fishery Subjects and Certificates required for Masters, « Second-Hands » and Engineers on Fishing Vessels. – VII Congr. Int. Aquicult. & Pêche, Paris 1931, Communications, III, 87-92, Impr. du Loiret. Orléans (1935). **b - 1626**

Fishery Schools and Courses. Special classes for Board of trade certificates. Board of trade examinations. Certificates for « Second-hands », for Skippers and « Extra Skippers ». Robert Gordon's Colleges, Aberdeen, School of Navigation. Course for Cadets and Apprentices to the Fishing Service.

**Vigneault N. J.** - The Gaspesia and North Shore Fisheries of the Gulf of St. Lawrence. – Canad. Fisherm., XXI, 3, 9-10. Gardenvale, Que. (1934). b - 1627

An address to the Montreal Fish Trades Association, containing a summary of the activities of the North Shore Fisheries, of the Gulf of St. Lawrence, during the season 1933, starting at Tadoussac and reaching as far as Blanc Sablon, about 800 miles distance, which is the limit of the Canadian territory.

**Wagner K.** - Woher kommt die Notlage der Fischer an der ostpommerschen Küste? – Dtsch. Fischwirt., II, 48, 892-893. Berlin (1935). b - 1628

Vf. schlägt die Einrichtung eines Reichsdarlehnfonds vor, um die Fischer zu besseren Fahrzeugen zu verhelfen sowie die Festsetzung gesetzlicher Mindestpreise für die Fischer und die Industrie.

**Zirkel O.** - Die Deutschen Kassen zur Versicherung von Fahrzeugen in der Kleinfischerei. – VII^e^ Congr. Int. Aquicult. & Pêche, Paris 1931, Communications, III, 93-103. Impr. du Loiret. Orléans (1935). b - 1629

Allgemeines. Geschichtlicher Ueberblick: Die Kassen von 1903 bis zum Ausbruch des Krieges, nach dem Kriege. Die Rückversicherungsverbände.

**Reichsarbeitsminister** - Soziale Schutzvorschriften für Seeleute. – Dtsch. Fisch.- Rundschau, 5, 96-97. Bremerhaven (1935). b - 1630

Wortlaut der auf Grund des Gesetzes über die Ermächtigung des Reichsarbeitsministers zum Erlass sozialer Schutzvorschriften für die Besatzung von Seeschiffen und Hochseefischereifahrzeugen am 14. Februar 1935 erschienenen Durchführungsverordnung.

**Rt** - Drei Jahre als deutscher Instrukteur in der russischen Hochseefischerei. – Dtsch. Fisch.- Rundschau, 13, 288-289. Bremerhaven (1935). b - 1631

Bericht des Altonaer Fischdampferkapitäns Emil Schweminsky über die Verhältnisse der russischen Hochseefischerei an der Murmanküste.

**An.** - Newfoundland Stops Advances for Fishermen's Supplies. – Canad. Fisherm., XXII, 3, 16-17. Gardenvale, Que. (1935). b - 1632

Some consideration concerned with the condition of Newfoundland's fisheries, with especial regard to the brief and unsuccessful experience of Government intervention in the fishery supply business in Newfoundland.

**An.** - Federal Loans to Aid Fishermen. – Canad. Fisherm., XXII, 7, 7-8. Gardenvale, Que. (1935). b - 1633

Extracts from the Bill passed in the Canadian Parliament in order to provide mortgage credits for fishermen, enabling them to purchase gear and other fishing equipment through long term loans.

**An.** - Fachschule für die Hochseefischerei. – Dtsch. Fischwirt, II, 16, 363-364. Berlin (1935). b - 1634

Kurzer Bericht über die Gründung, Organisation und Tätigkeit der von der Deutschen Arbeitsfront gegründeten Schule in Altona für die Fortbildung der Fischdampferbesatzungen.

**An.** - Der Start der Hauptvereinigung in der Tagespresse. – Dtsch. Fischwirt., II, 18, 396-397. Berlin (1935). b - 1635

Zusammenfassende Wiedergabe der Vermittelungen der deutschen Tagespresse in Bezug auf den Zusammenschluss der deutschen Fischwirtschaft zu einer Hauptvereinigung.

**An.** - Die Aufgaben des Fischereischutzdienstes. Fischereischutzboot « Weser » in der Ostsee. – Dtsch. Fischwirt., II, 34, 660-661. Berlin (1935). b - 1636

Fragen politisch-polizeilicher Natur. Schutz- und Hilfsmassnahmen, Behebung von Maschinenschaden, wissenschaftliche Ausrüstung der « Weser » und « Elbe ».

**An.** - Auszug aus dem Tätigkeitsbericht über die 3. Loggerreise des Fischereischutzbootes « Elbe » vom 25. Juli bis 23. August 1935. – 3 Aufn., 1 Tab., Fischmarkt, III, 10, 263-265. Cuxhaven (1935). b - 1637

**An.** - Federal Aid for Building or Reconditioning Vessels. – Fish. Gaz., LII, 1, 4. New York (1935). b - 1638

Third and last article dealing with Federal aid for the fishing industry and concerned with the Shipping Board's Construction Fund available for owners of fishing craft.

## *Leges productionis et commercii Praescripta et decreta – Pactiones.*

**Albers H.** - Die Umsatzsteuer-Rechtslage für den Fisch- und Fischwarengrosshandel im Binnenland. – 1 Diagr., 1 Tab., Dtsch. Fischwirt., II, 21, 448-450. Berlin (1935). b - 1639

Beitrag des Sachverständigen der « Dtsch. Fischwirt. » zur Erläuterung der neuen Umsatzsteuer, ihrer Rechtslage und ihrer Auswirkung.

**Bähr O.** - Verordnung über die äussere Kennzeichnung von Lebensmitteln. – Dtsch. Fisch.- Rundschau, 15, 342-344. Bremerhaven (1935). b - 1640

Kommentar und Wortlaut der Lebensmittel-Kennzeichnungsverordnung, mit besonderer Berücksichtigung der Erläuterungen von Dr. Merres, welche zeigen wie viel Wichtiges die Verordnung auch für den Fischindustriellen enthält.

**Brose W.** - Stärkere Sicherung der Frischfischzufuhren. Zur Anordnung 3 der Hauptvereinigung. – Dtsch. Fischwirt., II, 39, 737. Berlin (1935). b - 1641

Möglichkeit vermehrter Zufuhr an frischen Seefischen um Preissteigerung zu vermeiden. (S.: Wortlaut der Anordnung, « Dtsch. Fischwirt. », II, 39, S. 744).

**Cerquetelli L.** - La pesca nei trattati internazionali. – Boll. Pesca, Piscicol. e Idrobiol., X, 4, 514-536. Roma (1934) b - 1642

Norme giuridiche sulla pesca nei vari Stati.

**Dommaschk M.** - Neues aus der Seewasserstrassenordnung. – Dtsch. Fischwirt., I, 16, 256-258. Berlin (1934). b - 1643

Kommentar der neuen Fassung der am 31. März 1927 vom Reichsverkehrminister erlassenen Polizeiverordnung zur Regelung des Verkehrs auf den deutschen Seewasserstrassen, welche am 1. Januar 1934 in Kraft getreten ist (Schluss folgt).

**Furgiuele M.** - Sul Regio decreto 15 maggio 1884, n. 2053, concernente i diritti esclusivi di pesca. – Boll. Pesca, Piscicolt. e Idrobiol., IX, 6, 990-997. Roma (1933). b - 1644

La presente nota chiarisce in modo definitivo alcuni punti finora controversi in materia di riconoscimento di diritti di pesca. Si conclude che il Regio decreto 15 maggio 1884, si riferisce alla prescrizione eventualmente acquisita sotto l'impero delle leggi precedenti alla attuale legislazione.

**Groe** - Sicherstellung der Frischfischversorgung. – Dtsch. Fischwirt., II, 32, 625-626. Berlin. (1935). **b - 1645**

Wortlaut der Anordnung n° 1 der Hauptvereinigung der deutschen Fischwirtschaft zur Regelung der Frischfischzufuhren während der deutschen Trawlheringssaison 1935, mit einigen begleitenden Bemerkungen.

**Kersten W.** - Ziele und Inhalt der neuen Anordnungen der Hauptvereinigung. – Dtsch. Fischwirt., II, 46, 857-858. Berlin (1935). **b - 1646**

Erläutern seitens der Sachbearbeiter der Bestimmungen der Anordnungen Nr. 6, 7 und 8, deren Wortlaut im H. 45 der « Dtsch. Fischwirt. », 1935, veröffentlicht worden ist.

**Pelgry** - Wichtiger Erlass über die Frauenarbeit in der Fischindustrie. – Dtsch. Fisch.-Rundschau, 10, 216. Bremerhaven (1935). **b - 1647**

Wortlaut und begleitende Bemerkungen zum Anlass des Reichs- und Preussischen Arbeitsministers über die Grundsätze des Arbeiterinnenschutzes im Rahmen der deutschen Fischindustrie.

**Pilwat H.** - Schleppnetzfischer - Stellnetzfischer. Vorschläge zu einem vernünftigen Ausgleich. – Dtsch. Fischwirt., II, 32, 630-631. Berlin (1935). **b - 1648**

Einige Betrachtungen über die Einteilung der Fischgründe ausserhalb der 3-Seemeilen-Zone für die Schleppnetzfischer und Stellnetzfischer und die Möglichkeit die davon erfolgten kleinen Streitigkeiten dem Allgemeinwohle der Fischer unterzuordnen.

**Roper D. C.** - New Deal for Fisheries. – Fish. Gaz., LII, 5, 7-8 & 10. New York (1935). **b - 1649**

Remarks and comment to the program for Fishery Advisory Board which are excepts from Secretary Roper's address before the Fishery Advisory Committee at Washington, May 6, 1935.

**California Fish & Game Division.** - Abstract of California Sporting Fish and Game Laws, 1933-1935. – 2 figs., California Fish & Game, XXI, 4 append., San Francisco, Ca. (1935). **b - 1650**

Abstract of the laws valid until 90 days after adjournment of the 1935 Legislative Session.

**Hauptvereinigung der Deutschen Fischwirtschaft** - Regelung der Frischfischzufuhren. – Dtsch. Fisch.-Rundschau, 16, 365. Bremerhaven (1935). **b - 1651**

Wortlaut der von der Hauptvereinigung der Deutschen Fischwirtschaft im Verkündungsblatt des Reichsnährstandes n° 62, vom 5. August 1935 veröffentlichten Anordnung, welche die Frischfischzufuhren während der deutschen Trawl-Heringssaison 1935 regelt.

**Hauptvereinigung der Deutschen Fischwirtschaft** - Anordnungen Nr. 5, Nr. 6, Nr. 7 und Nr. 8 – Dtsch. Fischwirt., II, 44, 827-828; 45, 847-848. Berlin (1935). **b - 1652**

Anordnungen betreffend: Mindestverkaufspreise im Seefischgrosshandel vom 8. Oktober 1935; Verteilung und Verwertung der Herings-, Sprott- und Spitzenfänge der deutschen See- und Küstenfischerei in der Fangperiode 1935/36; Genehmigungspflicht für Neuerrichtung und Wiederaufnahme nicht nur vorübergehend eingestellter Betriebe; Kostenberechnung für fischindustrielle Erzeugnisse.

**Hauptvereinigung der Deutschen Fischwirtschaft** - Die Satzung – Fischmarkt, III, 7, 181-188. Cuxhaven (1935). **b - 1653**

Wortlaut der Satzung erlassen auf Grund des Par. 3, Abs. 2 der Verordnung über den Zusammenschluss der Deutschen Fischwirtschaft.

**Ministero dell'Agricoltura e delle Foreste. Divisione pesca** - Testo Unico delle leggi sulla pesca. (Regio decreto 8 ottobre 1931, n. 1604) – Gazz. Uff. 23 gennaio 1932, n. 18. Ist. Poligr. dello Stato. Roma (1935). **b - 1654**

**Ministero delle Colonie** - Norma per l'esercizio della pesca in Eritrea e nella Somalia italiana. (Regio decreto 27 luglio 1934, n. 1410). – Gazz. Uff., 209, 4042-4044. Roma (1934). **b - 1655**

**Polizeibehörde von Wesermünde** - Zwei wichtige neue Polizeiverordnungen. – Dtsch. Fisch.- Rundschau, 18, 412-413. Bremerhaven (1935). **b - 1656**

Wortlaut der Polizeiverordnung betreffend die Gesundheits-, Verkehrs- und Feuerpolizei im Hafen- und Geestegebiet Wesermünde vom 5 August 1935 und die Polizeiverordnung zur Aenderung der Polizeiverordnung für die Fischversteigerungen im Fischereihafen Wesermünde (Marktordnung), vom 4. September 1933.

**Reichsarbeitsminister** - Verordnung über das Krabbenschälen in der Heimarbeit, vom 13. Juli 1935. – Dtsch. Fisch.-Rundschau, 16, 364-365. Bremerhaven (1935). **b - 1657**

Wortlaut der Verordnung.

**Reichsminister für Ernährung und Landwirtschaft** - Verordnung über den Zusammenschluss der deutschen Fischwirtschaft. – Fischmarkt, III, 4, 132-135. Cuxhaven (1935). **b - 1658**

Wortlaut der im « Reichsgesetzblatt » n° 43, vom 18. April 1935 veröffentlichen Verordnung über die Bildung und Ziele der « Hauptvereinigung der deutschen Fischwirtschaft ».

**Verwaltungsrat der Wirtschaftlichen Vereinigung der Fischindustrie Deutschlands** - Begriffsbestimmungen fischindustrieller Erzeugnisse. – Dtsch. Fischwirt., II, 20, 437-429. Berlin (1935). **b - 1659**

Wortlaut der Beschlüsse der Wirtschaftlichen Vereinigung der Fischindustrie Deutschlands, welche die Begriffsbestimmungen fischindustrieller Erzeugnisse regeln. S. auch: A. Behre: « Begriffsbestimmung für Fische und Fischzubereitung usw. », ebenda, S. 425-127.

**Ge.** - Das kommende Heringsgesetz in Grossbritannien. – Dtsch. Fischwirt., II, 3, 41-42. Berlin (1935). **b - 1660**

Kommentar des zur Annahme des Parlaments liegenden englischen Gesetzes zur Regelung der Heringswirtschaft Grossbritanniens.

**M.** - Konservierungsmittelverordnung und Dosennormierung als Abschluss jahrelanger Arbeit. – Fischmarkt, 6, 157-159. Cuxhaven (1934). **b - 1661**

Bedeutung der Verordnung über den Zusammenschluss der Fischindustrie und Kommentar der Konservierungsmittelverordnung und der Dosennormierung, die man als Abschluss einer 8-jährigen Arbeit ansehen kann.

**M.** - Zum Vollzug der lebensmittelgesetzlichen Bestimmungen. – Fischmarkt, 9, 237-241. Cuxhaven (1934). **b - 1662**

Kommentar der neu erlassenen Bestimmungen, welche auch für die Fischwirtschaft von grosser Bedeutung sind.

**An.** - Fishery Treaty Urged by International Council. – Canad. Fisherm., XXII, 10, 15. Gardenvale, Que (1935). **b - 1663**

Brief account of the action taken by the North American Council on Fishery Investigations occasioned by the fact that haddock fishery on the banks off the New England and Nova Scotian coasts is facing commercial destruction. Necessity of using nets of larger mesh.

**An.** - New Salmon Treaty Possible. – Canad. Fisherm., XXII, 11, 19. Gardenvale, Que (1935). **b - 1664**

Account of a new move launched in the State of Washington in order to ratify an agreement with Canada in view of the preservation of the Fraser River Salmon.

**An.** - Grundsätzliches zur Neuregelung für Fischmehl. – Dtsch. Fisch.-Rundschau, 5, 98-100. Bremerhaven (1935). **b - 1665**

Kommentar der am 2. Februar 1935 erschienenen Anordnung der Wirtschaftlichen Vereinigung der Fischindustrie Deutschlands über Fischmehl und Höchstpreise für Fischmehl, welches in « Die Landware » vom 16. 2. 1935 veröffentlicht worden ist.

**An.** - Satzung der Hauptvereinigung der deutschen Fischwirtschaft vom 13. Juni 1935. – Dtsch. Fisch.-Rundschau, 13, 292-294. Bremerhaven (1935). **b - 1666**

**An.** - The New Canadian Trade Treaty. How Will It Affect U. S. Fisheries? – Fish. Gaz., LII, 13, 5 & 7. New York (1935). **b - 1667**

Some considerations, on hand of letters of people directly concerned with the Reciprocity Agreement between the United States and Canada.

**An.** - Fishery Provisions Canadian Trade Treaty. – Fish. Gaz., LII, 13, 29. New York (1935). **b - 1668**

Essential fishery facts contained in the provisions of the Reciprocity Agreement concluded between the United States and Canada.

# BIOLOGIA PISCATUI APPLICATA

## *Hydrographia et Hydrologia piscatui applicatae.*

**Antipa G.** - Les bonifications hydrologiques des deltas. – 10 fig., Comm. Int. Expl. Scient. Méditerr., Rapp. Ass. Plén. Bucarest, 22 pp. Paris (1935). **b - 1669**

Ce que l'on doit entendre par « bonification des deltas ». Les systèmes de bonification des deltas: A. - Deltas d'âge ancien (delta du Nil); B. - Deltas d'âge moyen (Mississippi, Rhône); D. - Les deltas jeunes (Danube): La génèse, la structure et l'évolution de delta du Danube - l'amélioration du delta du Danube - son aménagement.

**Antipa G.** - Les bases biologiques de la production des pêcheries dans la région Nord-Ouest de la Mer Noire. – 2 cartes, VII$^e$ Congr. Int. Aquicult. & Pêche, Paris 1931, Communications, III, 36-61. Impr. du Loiret. Orléans (1935). **b - 1670**

L'A. met en évidence les quatre facteurs principaux sur lesquels se base la grande productivité de la région nord-ouest de la Mer Noire et les mesures de protection pour la maintenir.

**Athanassopoulos G. D.** - Sur la production des eaux saumâtres spécialement des formations lagunaires et questions qui s'y rapportent. – VII$^e$ Congr. Int.. Aquicult. & Pêche Paris, 1931, Communications, III, 11-15. Impr. du Loiret. Orléans (1935). **b - 1671**

L'A. en citant trois exemples de formations lagunaires et leur exploitation étudie le problème du point de vue pratique et technique se référant à la production. Nécessité d'une étude scientifique et d'organisation.

**Averintzev S.** - Les courants marins, la biologie des poissons et leur pêche. (En russe). – Za Rybn. Ind. Sev. 10, 12-14. Leningrad (1934). **b - 1672**

L'A. étudie les rapports existant entre les courants marins et la biologie des poissons et leur propagation, en considérant surtout les espèces de poissons vivant dans la Mer de Barents.

**Behning A. L.** - Hydrologische und hydrobiologische Materialien zu einer Fischerei-Karte des Aralsees. (In Russ.). – 3 Kart., Tab., Rep. Aral-See Div. Inst. Mar. Fish., III, 181-205. Araljsk (1934). **b - 1673**

Nach einigen allgemeinen Bemerkungen über die Ausarbeitung einer Fischerei-Karte, übergeht Vf. zu seinem Berichte über die von ihm im Jahre ausgeführten Forschungen im Aralseegebiete mit Bezug auf seine hydrologischen und hydrobiologischen Verhältnisse, mit besonderer Berücksichtigung der Strömungen, der Temperatur, des Salzgehaltes, der Durchsichtigkeit und der Farbe, der Wasserstoffionen-Konzentration, der chemischen Beschaffenheit und elektrischen Leitungsfähigkeit des Wassers des Aralsees. In seinen Schlussfolgerungen schildert er die Entwicklungsmöglichkeiten der Fischerei im Aralsee.

**Lundbeck J.** - Fischereibiologisches über die deutsche Dampferfischerei an der norwegischen Küste. – 4 Taf., Fischmarkt, 8, 200-203. Cuxhaven (1934). **b - 1674**

Beteiligung ausländischer Fischer an der norwegischen Lofotenfischerei. Statistische Angaben über den Umfang der deutschen Fischerei an der norwegischen Küste bis Juni 1934. Besprechung der Veränderungen der Erträge im Zusammenhang mit der biologischen Zusammensetzung der vorhandenen Fischformen: Kabeljau, Schellfisch, Rotbarsch. Auswirkung des Gebrauches von Schleppnetzen auf den Fischbestand an der norwegischen Küste, mit besonderer Berücksichtigung der Kabeljaufischerei.

**Miyamoto Hideaki** - Effect of the Oceanographical Conditions on the Catch of Squids. (In Jap., Engl. Rés). – 3 tabl., 4 figs., Bull. Jap. Soc. Scient. Fish., III, 6, 327-330. Tokyo (1935). **b - 1675**

Looking through the data obtained by the Hokkaido Fisheries Experimental Station in 1928-1932, the writer assumed the water temperature read on the spot, where catch of Squids, *Ommastrephes sloani pacificus* (Steenstrup), took place, as the optimum temperature for the squid angling for each year and for each depth ranging from 0 m to 60 m.

**Nesbit R. A.** - Conditions Affecting the Southern Winter Trawl Fishery. – 3 figs., U. S. Dpt. Comm., Bur. Fish. Circ. 18, 1-12. Washington, D. C. (1935). **b - 1676**

Introduction. Changes in summer fishery. Changes in winter fishery. Changes in temperature. Scup scatter in warm winters. Sea bass in warmer water than scup Fluke in more northerly part of the ground. Outlook for the winter 1935 (Jan.-March). Conservation problems.

**Roule L.** - L'aménagement des deltas. – Comm. Int. Expl. Scient. Méditerr., Rapp. Ass. Plén. Bucarest. 3 pp. Paris (1935). **b - 1677**

Sur la base de deux exemples, celui de l'aménagement du faciés lagunaire tel qu'il est pratiqué au nord de la Mer Adriatique, dans les provinces de Venise et au delta du Pô, et de la méthode préconisée et suivie par M. le Docteur Antipa pour l'utilisation des eaux saumâtres du delta du Danube, l'A. précise les termes du dilemme économique qui se pose à l'égard des deltas, en donnant sa préférence à l'exploitation piscicole de ces derniers qu'il considère comme plus avantageuse que l'exploitation agricole.

**Schnakenbeck W.** - Die biologischen Grundlagen für die Fischerei in der Niederelbe. 2. Das mengenmässige Vorkommen der Fische. – 1 Diagr., Fischmarkt, 2, 32-35. Cuxhaven (1934). **b - 1678**

(1. S.: « Fischm. », 9, S. 256, 1933). Ergebnisse der während vier Jahre (1928 bis 1931) an bestimmten festgelegten Plätzen in der Unterelbe in jedem Monat einmal mit Schleppnetz gemachten Fänge, aus denen klar die Verteilung des Stromlaufes in drei charakterisierte Zonen hervorkommt. Abhängigkeit des mengenhaften Vorkommens der Fische von der Wasserbeschaffenheit, den Strömungsverhältnissen und der Nahrung. Vergleich zwischen dem Fischreichtum der Unterelbe und der Fischarmut des oberen Teiles des Stromes. Einige Betrachtungen fischereiwirtschaftlichen Charakters.

**Schnakenbeck W.** - Ueber einige Einlieferungen aus Fischdampferfängen. – Fischmarkt, III, 11, 299-300. Cuxhaven (1935). **b - 1679**

Einzelnes über einige Einlieferungen aus Fischdampferfängen, mit besonderer Berücksichtigung des Vorkommens von Maifischen unter Island sowie Haie und Sardellen in für sie ungewöhnlichen Gewässern.

## *Influentia temperaturae in piscaturam.*

**Binet L. & Morin G.** - Action de la chaleur sur les poissons. – Journ. Physiol. et Pathol. Gén. XXXII, 2, 372-379. Paris (1934). **b - 1680**

Rapport sur les expériences entreprises avec *Gobius lota* dans l'eau de mer echauffée jusqu'aux 36°-38°.

**Chiappelli R.** - La temperatura dell'acqua in rapporto all'accrescimento dei pesci. – Giorn. Risicolt., 10, 219-220. Vercelli. **b - 1681**

Si dimostra la benefica influenza dell'acqua calda sull'accrescimento dei pesci.

**Eggvin J.** - Biologiske og oceanografiske undersøkelser: Temperaturen i Vestfjorden under Lofotfisket 1935. – Årsber. v. Norg. Fisk. 1935, 2, 99-102. Bergen (1935). **b - 1682**

Sulla temperatura eccezionalmente alta constatata nelle acque del Golfstrøm durante questi ultimi anni e la conseguente alta temperatura nel Vestfjord, specialmente riguardo all'acqua profonda. L'effetto di questa anomalia sulla pesca di Lofoten.

**Jammes L.** - Influence de la température sur les déplacements en hauteur de la Truite commune, *Salmo trutta* L. dans le lac d'Orèdon (Hautes Pyrénées). – VII^e^ Congr. Int. Aquicult. & Pêche. Paris 1931, III, 171-174. Impr. du Loiret. Orléans (1935). **b - 1683**

L'action du facteur température sur les poissons est un phénomène d'ordre général et dans le cas étudié ici il est même possible d'estimer assez bien, d'après la présence ou l'absence de poissons, les variations de température qui se produisent à la surface du lac. Informations particulières sur les déplacements du poisson et les variations de la température de l'eau.

**McKenzie R. A.** - More About Codfish and Water Temperature. – Canad. Fisherm., XXII, 5, 15. Gardenvale, Que. (1935). **b - 1684**

Brief discussion of some points raised by F. W. W. in his account published in an issue of the « Canadian Fisherman » of the cod feeding experiments being carried on under the Biological Board of Canada; the discussion is specially concerned with the habits and « preferences » of the cod in relation to the water temperature.

**Moissjeev P. A.** - Sur la question du régime thermique de la morue de la Mer de Bering. (En russe). – 1 graph., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 94-97. Moskva-Khabarovsk (1934). **b - 1685**

Résultats des observations sur la température de l'eau qui accompagne la capture de *Gadus morrhua macrocephalus* Tilesius au cours des croisières des chalutiers et des navires de recherche océanographique dans la partie occidentale de la Mer de Bering. Comparaison entre les migrations de la morue dans la région considérée et dans la Mer de Barents, considérations sur l'importance de la température 0° dans l'eau de mer par rapport à la pêche de *G. morrhua*.

**Thompson H.** - Relationship Between Catch of Cod and Water Temperature. – 2 figs., 3 tables. Rep. Newfoundl. Fish. Research Labor., II, 3, 23-31. Newfoundland (1935). **b - 1686**

1. Results of the investigation undertaken on the fishing banks by the research trawler, s. s. « Cape Agulhas ». 2. Great variation in the catches taken year by year in the inshore cod-traps commonly used in Newfoundland, with especial reference to the relationship between water-temperature and the amount of the catch. 3. Observations on the codfish fishery in the Newfoundland area generally showing how much codfish fishery is affected by water-temperature conditions.

**Uda Mititaka** - On the Estimation of Favorable Temperature for Long-line Fishing of Tunny. (Jap. Text., Engl. Rés.). – 1 tabl., 3 fig., Bull. Jap. Soc. Scient. Fish., IV, 1, 61-65. Tokyo (1935). **b - 1687**

On the basis of observations carried out during July 1930 to March 1931 off the North-eastern Japan and off south to Bôsyû including *Thunnus thunnus*, *Th. alalonga*, *Parathunnus sibi* and *Germo macropterus*, the A. has been able to examine the difference between the distributions of total catch as well as of the frequency of catch, referred to the temperature of the layer in which tunnies are angled and the distributions referred to the surface temperature.

**Upton M.** - The Influence of Varying Temperature on the Behaviour of Mackerel. – Woods Hole Oceanogr. Instit., App. Rep. 1934, 34-35. Woods Hole, Mass. (1935). **b - 1688**

Account of a series of experiments to determine the nature of the behaviour of the mackerel when the water containing the fish varies in temperature, carried on in order to verify the idea that the lowering temperature of the coastal waters in the fall might be the essential factor stimulating the autumn migration of the mackerel away from the inshore regions where they spend the summer.

**F. W. W.** - Codfish and Water Temperature. – Canad. Fisherm., XXII, 3, 10. Gardenvale, Que. (1935). b - 1689

Some interesting results of experiments carried out at the Eastern Passage Laboratory, Halifax, showing that codfish will live in warm water. Some hints of the author as to the organization of research in order to establish the temperature « preferences » of the codfish.

## *Piscicultura.*

**Brunelli G.** - La valliculture et la bonification des deltas fluviaux. – Comm. Int. Expl. Scient. Méditerr., Rapp. Ass. Plén. Bucarest, 7 pp. Paris (1935). b - 1690

L'A. traite de la technique de la valliculture (et de ses rapports avec la bonification), en relation avec le problème d'assainissement des deltas fluviaux, avec référence spéciale aux travaux vallicoles exécutés dans la lagune de Venise.

**Coceani B.** - L'industria valliva in Italia. – VII^e^ Congr. Int. Aquicult. & Pêche, Paris 1931. Communications, III^e^, 16-27. Impr. du Loiret. Orléans (1935). b - 1691

Consistenza della industria valliva. Il raccolto delle valli. Sfruttamento. La conservazione delle anguille vive. L'affumicatura delle anguille. L'industria degli ammarinati. La raccolta del novellame. Esperimenti di erpicatura e di aratura dei fondi vallivi.

**De Angelis R.** - Le pescherie litoranee sotto il punto di vista idraulico. – Boll. Pesca, Piscicolt. e Idrobiol., X, 4, 506-513. Roma (1934). b - 1692

Viene illustrato un particolare sistema di bonificazione nelle pescherie litoranee incardinato sulla scienza del disciplinamento delle acque.

**Fritzsche H.** - Die deutsche Teichwirtschaft und Fischzucht. – Dtsch. Fischwirt., II, 21, 444-446. Berlin (1935). b - 1693

Besprechung der wichtigsten Probleme der deutschen Teichwirtschaft und Fischzucht, auch im Bezug zu ihren Verhältnissen gegenüber der Seefischerei.

**Heldt H.** - Modalités d'empoissonnements des lacs côtiers et considérations pratiques pour un meilleur rendement de la pêche aux bordigues. – VII^e^ Congr. Int. Aquicult. & Pêche, Paris 1931, Communications, III, 28-29. Impr. du Loiret. Orléans (1935). b - 1694

L'importance du courant entre la mer et le lac pour la circulation des alevins et des adultes. Nécessité d'intensifier les échanges d'eau entre la mer et le lac pour de meilleures captures aux bordigues. Exemple d'une telle entreprise avec de bons résultats.

**Lo Giudice P.** - Piscicultura. – Boll. Pesca. Piscicolt. e Idrobiol., XI, 4, 524-529. Roma (1935). b - 1695

L'A. descrive il processo di fecondazione artificiale tipico, seguito per le uova dei Salmonidi e applicabile anche ad altri pesci, gli apparecchi che servono per l'incubazione delle stesse, e le norme generali da osservare per le uova fecondate ed embrionate, come pure per l'allevamento degli avanotti e per la loro protezione dalle malattie parassitarie.

**Maiorca V.** - Saline siciliane. – 2 fig., Ann. Merceol. Sicil., II, 102-144. Catania (1933-34). b - 1696

Delle saline marittime in generale. La piscicoltura nelle saline. Importanza terapeutica delle saline. Le saline di Trapani e di Augusta.

**Mola P.** - Relazione per le opportune indagini allo scopo di accertare se nelle acque sarde sia notata all'epoca adatta la frequenza di oratelle da semina, in quantità tale da renderne conveniente la raccolta ed il trasporto per il ripopolamento delle valli sarde e foreste. – Boll. Pesca, Piscicolt. e Idrobiol., XI, 2, 317-321. Roma (1935). b - 1697

**Scarapecchia D.** - La sistemazione della Laguna di Marano. – Corr. della Pesca, 13, 3-4. Roma (1935). b - 1698

Le valli d'allevamento. Progetto e spese relative. Disposizioni, iniziative e prospettive. Flotta peschereccia, case per i pescatori e organizzazione di vendita. Conclusione.

**Supino F.** - L'allevamento dei Muggini in acqua dolce. – 5 fig., Natura (Riv. Sc. Natur.), XXVI, 2, 55-62. Milano (1935). b - 1699

Biologia dei Mugilidi delle nostre acque (*Mugil cephalus, M. auratus, M. ramada, M. saliens, M. chelo, M. labeo*) e i caratteri per la loro determinazione sistematica. L'A. riferisce sui soddisfacenti risultati ottenuti dagli allevamenti di Muggini nella regione pontina.

**Tanaka Rinzo** - On an Egg receiving Apparatus for the Artificial Fertilization of Salmon. (In Jap., Engl. Rés.). – 3 tabl., 1 fig., Bull. Jap. Soc. Scient. Fish., IV, 4, 229-232. Tokyo (1935). b - 1700

The new apparatus proves to work better than the ordinary one in increasing the rate of fertilization and in reducing the number of dead eggs during the incubation.

**Wimpenny R. S. & Faouzi H.** - The Breeding of a Grey Mullet, *Mugil capito*, Cuv., in Lake Quarun, Egypt. – 1 table, Nature, CXXXV, 3425, 1041. London (1935). b - 1701

Short note on the results of the transplantation of 20.000 live fry chiefly of *M. cephalus*.

**Wirolajnen** - Lachszuchtversuche im Wyg-Flusse. (In Russ., Dtsch. Rés.). – 3 tabl., Rep. Karelia Scient. Res. Fish. Stat., I, 241-256. Leningrad (1935). b - 1702

Kurzer Bericht über die Ergebnisse der von der Karelischen Wissenschaftlichen Forschungsstation für Fischereiwesen unternommenen Versuche von künstlicher Zucht des Weissmeerlachses, *Salmo salar brevipes*, in besonderen Behältern. Die Ergebnisse sind als befriedigend zu beurteilen.

**Ministero dell'Agricoltura e Foreste** - Rapporti fra le acque di bonifica e la vallicoltura comacchiese. – 31 tav., 91 pp., Ist. Poligr. dello Stato. Roma (1934). b - 1703

Generalità. Accenni alla questione dei rapporti fra bonifica e vallicoltura. Analisi delle Acque di Valle. Influenza delle acque di bonifica su quelle di valle. La salsedine. Effetti della salsedine sulla fauna e flora acquatica. Le produzioni vallive.

**An.** - Fish Dropped from Planes in Stocking Lakes. – 1 phot., Canad. Fisherm., XXII, 7, 12. Gardenvale, Que. (1935). b - 1704

Brief account of experiments carried on in order to establish the possibility to use sea planes for stocking lakes and showing that fish can be dropped from a height of 1500 feet without harm.

### *Praevisiones de piscatione – Tutela piscium juvenum.*

**Flagg H. W.** - A Plan to Conserve the Texas Fish Supply. – 1 map., Fish., Gaz., LII, 7, 8 & 12. New York (1935). **b - 1705**

Author shows that the opening of Texas coastal waters, which are rather shallow and represent a kind of « natural hatcheries », to commercial fishermen, that is with seines and nets, is antagonistic and contrary to all scientific data and conservation efforts.

**Herrington W. C.** - Modifications in Gear to Curtail the Destruction of Undersized Fish in Otter Trawling. – 15 figs., 10 tabl., Invest. Rep., U. S. Dpt. Comm. Bur. Fish, I, 24, 1-48. Washington D. C. (1935). **b - 1706**

The destruction of undersize haddock became a problem of importance to the New England fishery as the result of a gradual growth in the otter -trawl fleet. The increasing use of the otter trawl met considerable opposition among the line and dory fishermen because of the belief that it was unduly destructive. The trend to a rapid decline in the haddock fishery after 1929 induced the Bureau of Fisheries to organize an investigation designed to determine the cause of the decline in the haddock catch and whether any effective measures could be devised for its relief. The results of these investigations are dealt with in the present booklet.

**Manning J. R.** - Standardization of Fishery Products. – Fish. & Oyst. Rep., XV, 7, 2-3 & 10. Tampa, Fla. (1934). **b - 1707**

Address delivered before the 15th Annual Meeting of the National Association of Marketing Official, Washington, D. C., December 20, 1933, dealing with the standardization of marine products of commerce, with especial reference to the establishing of marketing grades by the fishery industries of the United States.

**Miyosi Kiyoide** - Effect of Liberation of Fry on the Catch. (In Jap., Engl. Rés.). – 2 tabl., Bull. Jap. Soc. Scient. Fish., III, 5, 235-238. Tokyo (1935). **b - 1708**

The yearly records of the catch and the number of liberated fry were analysed statistically for Chum (*Oncorhynchus keta*) in Hokkaido, red Salmon (*O. nerka*) in Alaska and Trout (*O. rhodoris*) in Lake Biwa. The effect of the liberation on the catch was calculated from the slope of regression line.

**Morozoff A. V.** - On the Method of Establishing of the Age-Composition of the Take. (In Russ., Engl. Summ.). – 3 figs., 37 tabl., Bull. State Oceanogr. Inst. U. S. S. R., 15, 1-54. Moscow (1934). **b - 1709**

After a criticism of the usual methods of taking samples from catches in order to establish their age-composition, author describes the methods used at the age-determination of the stock of vobla (*Rutilus rutilus caspicus* Sac.) at the Volga-Caspian Fisheries Station, which take in account not the number of the single individuals but their weight. Author emphasizes the advantage of collecting data on weights of the fish instead of counting in order to obtain an idea of the correlations of different ages in the hauls of a given year, and the quantity of weight we can expect to have from the next year.

**Supino F.** - Le cure per la prole nei pesci. – Rass. Faun., I, 2, 46-48. Roma (1935). **b - 1710**

**Tauti Morisaburo** — The Increase of Large Fishes in the stock Resulted from Saving Small ones. – Bull. Jap. Soc. Scient. Fish., III, 6, 307-311. Tokyo (1935). **b - 1711**

In the present paper the increase of the number of large individuals in the stock due to saving the small ones is discussed, the body weight of individuals being put out of consideration.

**An.** - Prospects for East Anglia. Fishery will Reach its Maximum Round About October 22nd, says this Official Forecast. – Fish Trad. Gaz., 8–IX–1934, 16. London (1934). **b - 1712**

## PORTUS AD PISCANDUM

**Barris** - Port-Etienne, port de pêche international. – VII^e Congr. Int. Aquicult. & Pêche Paris 1931, Communications, III, 329-338. Impr. du Loiret. Orléans (1935). **b - 1713**

Projet d'amélioration du port, possibilité d'exploitation des produits de la pêche. Proposition de réunir une commission de techniciens spécialisés pour formuler les réglementations de la pêche et l'emploi des engins.

**Fortini G. O.** - I nostri centri e i nostri paesaggi pescherecci. Isola delle Femmine. – Boll. Pesca, Piscicult. e Idrobiol., XI, 1, 5-9. Roma (1935). **b - 1714**

**Mola P.** - I nostri paesaggi e i nostri centri pescherecci. Il Golfo dell'Asinara. – 7 fig., Boll. Pesca, Piscicolt. e Idrobiol., X, 3, 323-334. Roma (1934). **b - 1715**

Porto Torres: posizione geografica; importanza economica e commerciale e peschereccia; popolazione marinara; metodi e mezzi di pesca; pesci e molluschi pescati: movimento della pesca. Stintino: delimitazione geografica; attitudini degli abitanti; la pesca dei crostacei; lo Stabilimento di Torre Saline per la salagione e confezione del tonno in barili e scatole; la tonnara delle Saline; le saline di Stintino. Altri centri pescherecci del golfo: l'isola di Asinara, l'isola Piana.

**Pantano M. G.** - I nostri paesaggi e i nostri centri pescherecci. Augusta. – 9 fig., Boll. Pesca, Piscicolt. e Idrobiol., X, 6, 707-732. Roma (1934). **b - 1716**

Origine leggendaria di Augusta, isoletta dell'Ionio, descrizione delle attrattive che presenta. Attitudini marinare della sua popolazione fin dall'antichità. Cenni sulla flottiglia e i sistemi di pesca, e sull'organizzazione professionale tra i pescatori.

**Puglisi A.** - I nostri paesaggi e i nostri centri pescherecci. La Riviera Liburnica. Volosca, Abbazia, Laurana. – 5 fig., Boll. Pesca, Piscicolt., e Idrobiol., IX, 6, 985-989. Roma (1933). **b - 1717**

Dopo una breve descrizione del paesaggio della riviera Liburnica, l'A. espone le condizioni dell'ittiofauna del Carnaro e le specie di pesci prevalenti. Riferisce inoltre sui sistemi tradizionali di pesca esercitati nella riviera Liburnica, sulle caratteristiche della pesca al tonno, molto differente di quelle usate nelle tonnare della Sicilia e della Calabria, e infine accenna alla vendita del prodotto.

**Puglisi A.** - I nostri paesaggi e i nostri centri pescherecci. Trapani. – 6 fig., Boll. Pesca, Piscicolt. e Idrobiol., X, 2, 171-185. Roma (1934). **b - 1718**

Origine storica. Monumenti ed attrattive. Pesca e pescatori. Navigli e sistemi di pesca. Industria della pesca. La pesca del corallo. Le saline.

**An.** - Der Fischereiplatz Wesermünde im Spiegel der Zahlen. – 2 Tab., Dtsch. Fischwirt., II, 13, 213-215. Berlin (1935). **b - 1719**

Zusammenfassende Wiedergabe der in dem Berichte des Seefischmarkts A. G. Wesermünde enthaltenen Statistiken über die Leistungen des Fischereihafens Wesermünde.

# METHODUS ET INSTRUMENTA PISCATIONIS

## *Retia et instrumenta.*

**Alfonsi B.** - Confronto fra due tipi di lampade usate nella pesca luminosa nei riguardi della penetrazione delle loro luci nell'acqua di mare. – 5 fig., Boll. Pesca, Piscicult. e Idrobiol., X, 6, 1062- 1067. Roma (1934). **b - 1720**

Ricerche relative al confronto tra la penetrazione delle luci di due lampade – ad acetilene e a benzina – nell'acqua di mare, allo scopo di studiare la convenienza dell'uso dell'una o dell'altra di esse nella pesca luminosa. Risultati di una prima serie di esperienze.

**Averintzev S.** - La pêche allemande au chalut dans la Mer de Barents pendant les années 1929-1933. (En russe). – Tabl., Za Rybn. Ind. Sev., 11, 20-22. Leningrad (1934). **b - 1721**

**Baranov N. S.** - Le chalut construit par K. F. Gavrilenko. (En russe). – 3 fig., 1 tab., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 60-65. Moskva-Khabarovsk (1934). **b - 1722**

Description d'un nouveau type de filet pour la pêche du poisson « ivasj » dans les mers de l'Extrême-Orient russe. Avantage économique et pratique de l'emploi du nouvel engin. Résultats des premières expériences de son emploi.

**Belloc G. & Le Gall J.** - Le Chalutage. – 36 fig., tabl., Mém. Off. Pêches Marit., Man. Pêches marit. Franç., Sér. Spéc., 10, 2, 19-50. Paris (1935). **b - 1723**

Premier chapitre de la troisième partie du « Manuel des Pêches Maritimes Françaises », dont le contenu est ainsi qu'il suit: Le chalut: évolution de l'engin à travers l'histoire; le chalut bœuf ou « gangui »; le chalut à perche, à plateau et Vigneron-Dahl; le troisième plateau. Les chalutiers: le chalutiers à voiles et leur motorisation; le chalutier à vapeur; le chalutier frigorifique et le chalutier usine.

**Bonnerjea B.** - North American Fish-Hooks. – Science, LXXXII, 2134, 492. New York (1935). **b - 1724**

Short note on the origin of these hooks.

**Clark G. H.** - San Francisco Trawl Fishery. – Calif. Fish and Game, XXI, 22-37. Sacramento (1935). **b - 1725**

**Croker R. S.** - A New Net Development. – Calif. Fish and Game, XXI, 3, 262-263. Sacramento (1935). **b - 1726**

A miniature purse seine to be used in shallow water developed from an old type in use at San Pedro.

**Graham M.** - Modern Theory of Exploiting a Fishery and Application to North Sea Trawling. – 1 fig., 2 tabl., Journ. Cons. Expl. Mer, X, 3, 264-274. Copenhague (1935). **b - 1727**

After an account of the essentials of the theory and their applications A. concludes that even a stock declining in numbers can be better fished, from the point of view of economy, leisure, and yield, if the fish are allowed to grow; that any reduction of fishing rate would slow down the decline, and that a reduction of say, 16 per cent. in the fishing rate might indeed be sufficient to arrest the decline altogether.

**Johns W.** - Das Echolot in der Fischerei. – 8 Abb., Fischmarkt, 10, 256-258. Cuxhaven (1934). **b - 1728**

Bau und Funktionieren des Echolots; seine Vorteile für die Fischerei: Navigationsinstrument zur Bestimmung des Fischortes, zum Auffinden der Fangplätze, zur Feststellung der Tiefe und deren Einhalten beim Fischen.

**Kamiya S.** - The Distribution of Tensions in the Nets. (In Jap., Engl. Rés.). – 2 figs., 2 tabl., Bull. Jap. Soc. Scient. Fish., III, 1, 5-7. Tokyo (1934). **b - 1729**

Description of experiments based on the study of Pearson's coefficient of variation with cotton nets with a view to examine the actual value of the dispersion of tension caused by the irregularity of meshes.

**Kamiya S. & Yasuda H.** - The Distribution of Tensions in the Nets. II. (In Jap., Engl. Rés.). – Bull. Jap. Soc. Scient. Fish., III, 4, 203-204. Tokyo (1934). **b - 1730**

The present experiment concerns Pearson's coefficient of variation $V$, of the tensions on the arms of the nets of various materials.

**Kimoru Kinosuke** - Statistical Analysis of the Catch by Keddle Nets, Along the Coast of Suruga Bay. – 29 figs., 6 tabl., Rec. Oceanogr. Works Japan, VII, 1, 1-36. Tokyo (1935). **b - 1731**

This statistical analysis concerns the great number of yellowtail and young bluefin tuna that are caught by the keddle nets along the coast of Suruga Bay.

**Knipovitch N.** - Sur l'histoire de la pêche au chalut dans la Mer de Barents. (En russe). – 2 fig., tabl., Za Rybn. Ind. Sev., 5, 4-7. Leningrad (1935). **b - 1732**

**Le Gall J.** - La pêche au filet derivant. – 49 fig., 1 graph., Mém. Off. Pêches Marit., Man. Pêches Marit. Franç., Sér. Spéc., 10, 2, 51-93. Paris (1935). **b - 1733**

Deuxième chapitre de la III-ème partie du « Manuel des Pêches Maritimes Françaises », traitant des différentes pêches et de leurs engins: La pêche du hareng et la pêche du maquereau. Aperçu historique de ces deux pêches, les ports d'armement, les engins et la technique de pêche, les époques et lieux de pêche, les modes d'utilisation des produits de la pêche du hareng et du maquereau.

**Makouchok M. E.** - La pêche au chalut. (En russe). – 44 fig., 80 pp., Sevkrajghiz, Arkhangheljsk (1933). **b - 1734**

**Marchand J. M.** - Report on Preliminary Fishing Experiments with the Trammel-Net. – 3 figs., 1 table. 12th Ann. Rep. Fish. & Mar. Biol. Surv., 111-120. Pretoria, S. Afr. (1935). **b - 1735**

Description of the so-called trammel-net, the method of which is considered as an additional catching method to help the South African line-fishermen.

**Meseck G.** - Zur Verwendung von Sisalhanf und anderen Hartfaserhänfen in der Fischerei. – 6 Tab., Fischmarkt, 4, 92-97. Cuxhaven (1934). **b - 1736**

Besprechung der wichtigsten Ergebnisse der im « Bulletin of the Imperial Institute », n° 1, 1931 und n° 2, 1932 veröffentlichten Berichte über die seit einigen Jahren vom « Imperial-Institute » durchgeführten Tauuntersuchungen zur Verwendung der Taue zu fischereilichen Zwecken. S. auch die deutschen Referate im « Tropenpflanzer », 1931, S. 214 und 1932, S. 446.

**Meseck G.** - Zur Verwendung von Manilatauwerk in der Fischerei. – 4 Tab., Fischmarkt, 9, 235-237. Cuxhaven (1934). **b - 1737**

Zusammenfassende Wiedergabe der von Dr. Olie und Cool ausgeführten Untersuchungen, über welche in der holländischen Zeitschrift « Het Ship » (J. 16, n° 10, 18. Mai, 1934) berichtet worden ist.

**Mikhailov S.** - La pêche allemande au chalut dans la Mer de Barentz. (En russe). – 2 fig., 1 tabl., Za Rybn. Ind. Sev., 6, 5–9. Leningrad (1934). **b - 1738**

**Miraglia L.** - Nuovo sistema di osservazione e di caccia subacquea. – 10 fig., Boll. Pesca, Piscicolt. e Idrobiol., XI, 2, 255-316. Roma (1935). **b - 1739**

L'A. tratta dei mezzi diretti ed indiretti in uso per l'osservazione dei pesci e dei problemi relativi. Descrive le abitudini e l'habitat dei pesci più comuni e più importanti per la pesca, viventi lungo le coste rocciose del Tirreno.

**Miyamoto H.** - The Excess Buoyancy of Gill Nets and the Tension of them. (In Jap., Engl. Rés.). – 1 fig., 1 table. Bull. Jap. Soc. Scient. Fish., III, 3, 147-149. Tokyo (1934). **b - 1740**

Nearly the same proportion of total meshes is occupied by fishes before the net falls down, when the fishes are of the same species or of similar shoals. The tension of net seems to be related with the body weight of similar kinds of fishes e. g. *Cypselurus agoo* (T. & S.) and *Cololabis saira* (Brevoort) (A.).

**Miyosi K.** - On the Flexibility of Netting Cords. (In Jap., Engl. Rés.). – 4 figs., 3 tabl., Bull. Jap. Soc. Scient. Fish., III, 3, 143-146. Tokyo (1934). **b - 1741**

Results of the experiments undertaken to examine the force needed for bending a cord in a circular arc.

**Neuhaus E.** - Ueber den Wert der Netzkonservierung. – Dtsch. Fisch.-Rundschau, 12, 262-264. Bremerhaven (1935). **b - 1742**

Winke zur Ausführung einheimischer Imprägnierung.

**Neuhaus E.** - Neues und Wichtiges über Netzkonservierung. – Dtsch. Fisch.-Rundschau, 25, 577-578. Bremerhaven (1935). **b - 1743**

In n° 12 derselben Zeitschrift hat Vf. schon gründliche Ausführungen über den Wert der Netzkonservierung gemacht. In der vorliegenden Notiz berichtet er über einige Neuigkeiten auf diesem Gebiet an Hand der Ergebnisse der Arbeiten der « Niederländischen Fischereiversuchsanstalt und Laboratorium für Materialuntersuchungen » in Utrecht, Holland.

**Sund O.** - Echo Sounding in Fishery Research. – 1 fig., Nature, CXXXV, 3423, 953. London (1935).

(—) Lofotfisket 1935, Årsber. v. Norg. Fisk. 1935, 2, 89-91. Bergen (1935) **b - 1744**

Short report on records of spawning cod obtained by the Hughes echo sounding gear on board the s/s « Johan Hjort » at Høla, á bight of the Westfjord, in February 1935.

**Takenouti Y.** - The Nature of the Fishing Net and its Application to the Broad Break of the Net. I. – 7 fig., Bull. Jap. Soc. Scient. Fish., IV, 3, 141-146. Tokyo (1935). **b - 1745**

These investigations show that the differences of the nets with trawler knots and those with flat knot are mainly due to the tightness of knot, namely the range of its sliding. As to other factors concerning the strain distribution will be reported later on.

**Tauti M.** - A Relation between Experiments on Model and on Full Scale of Fishing Net. – 4 figs., formulas. Bull. Jap. Soc. Scient. Fish., III, 4, 171-177. Tokyo (1934). **b - 1746**

The study concerns the following possibilities: 1. The elongation of netting cords is negligible in the working conditions. 2. The pieces of net are perfectly flexible. 3. The change in the form of net occurs so slowly as the external forces acting on each elemental portion of net are taken to be in the quasi-equilibrium.

**Uda M. & Honda K.** - The Catch of Keddle Nets in Two Fishing Grounds on the Coasts of Nagasaki Prefecture and Idu Peninsula. (In Jap., Engl. rés.). – 10 figs., 2 tabl., Bull. Jap. Soc. Scient. Fish., II, 5, 263-271. Tokyo (1934). **b - 1747**

Analysis of the fluctuations in the catch of « Buri » (*Seriola quinqueradiata* T. & S.) based on daily records of the catch of keddle nets expressed in equations.

**Uno M.** - Influence of Preservative Dye on the Weakening of Nets. (In Jap., Engl. rés.) – 5 tabl., Bull. Jap. Soc. Scient. Fish., III, 2, 83-86. Tokyo (1934). **b - 1748**

Results of a test-examination carried out by the Japanese Society for the Study of the fixed Net Fishery. The preservative effect of most dyes in the case, where the dyed cords are subject to fishing operation, is nearly proportional to that in the case where the dyed cords hang freely down in the sea.

**Uno M.** - The Form and the Tension on Pursing Line of a Mackerel Ring-net used at Kosaitô, Tyôsen, as Known by a Model Experiment. (Jap. Text, Engl. Rés.). – 56 figs. on pl., 3 tabl., Bull. Jap. Soc. Scient. Fish., IV, 3, 147-152. Tokyo (1935). **b - 1749**

The tension, which is known to act on the pursing line of the original net is of reasonable magnitude as compared with the breaking strength of it.

**Uno M.** - Drift-net Skipper in the North-eastern Waters of Japan. (Prel. Rep. II). (In Jap., Engl. Rés.). – 1 tabl., 1 fig., Bull. Jap. Soc. Scient. Fish., IV, 3, 158-160. Tokyo (1935). **b - 1750**

Calculations on the proportions of length of different age-groups according to the spawning marks in the waters north of Tiba pref. and off Mie Pref.

**Yasuda H.** - Change in the Length and Diameter of Stretched Cotton Cords with Absorption of Water. (In Jap., Engl. rés.). – 4 figs., 2 tabl., Bull. Jap. Soc. Scient. Fish., II, 6, 297-300. Tokyo (1934). **b - 1751**

This experiment was undertaken with the same method as the one used with unloaded cords (this rev. II, 2, 80-84, 1933). The values are expressed in equations and graphs.

**Yasuda H.** - Absorption of Water by Netting Cords and the Change in their Length and Diameter. (In Jap., Engl. Rés.). – 4 figs., 2 tabl., Bull. Jap. Soc. Scient. Fish., III, 4, 205-208. Tokyo (1934). **b - 1752**

Examination of the amount of absorbed water and the change in length and diameter of ramie, Manila hemp and Japanese hemp cords immersed in water.

**“Scott Jock”** - Greased Line Fishing for Salmon. Compiled from the Fishing Papers of the Late A. H. E. Wood, of Glassel. With Contributions by the Rt. Hon. J. W. Hills & G. M. La Branche. – 16 pls., 221 pp., Seeley, Service & Co., Ltd. London (1935). **b - 1753**

**An.** - Wie geht die Herings-Treibnetzfischerei vor sich ? – 5 Abb., Dtsch. Fisch.-Rundschau, 14, 309-313. Bremerhaven (1935). **b - 1754**

Beschreibung des Treibnetzes, der Anordnung des Herings-Treibnetzes deutscher Art, seiner Aussetzung und Einholung; Schilderung der Arbeit, welche von einzelnen Matrosen ausgeführt werden soll, mit besonderer Berücksichtigung der Verarbeitung der gefangenen Heringe.

**An.** - Die Sowjetmethoden taugen für den Fischerei-Betrieb nichts. Eine norwegische Meinung. – Dtsch. Fisch.-Rundschau, 18, 410. Bremerhaven (1935). **b - 1755**

Notiz, welche in «Norges Handels- og Sjöfartstidende» veröffentlicht worden ist und aus welcher es klar hervorkommt, dass die Pläne der Sowietregierung in bezug auf die Seefischerei der nicht sachmännigen Administrations- und Baumethoden wegen nicht durchführbar sind.

**An.** - A Simple and Highly Effective Buoy Light that you can make yourself. – 5 sketches. Fish. Gaz., LII, 1, 25. New York (1935). **b - 1756**

Sketches with explanatory text for the construction of this simple buoy light.

**An.** - Rope, specially treated, able to resist *Teredo*. – Fish. Gaz., LII, 3, 29-30. New York (1935). **b - 1757**

Results of the investigations undertaken by the Plymouth Cordage Company in order to find means to resist this fouling and destructive marine organism.

## *Piscatus hamatilis, litoranea et in altum.*

**Ahlf R.** - Die deutsche Hochseefischerei. – Jahresber. Dtsch. Fisch., 1933, 177-192. Berlin (1934). **b - 1758**

**Beaugé L.** - La grande pêche. – 23 fig., Mém. Off. Pêches Marit., Man. Pêches Marit. Franç., Sér. Spéc., 10, 2, 176-196. Paris (1935). **b - 1759**

Chapitre V de la III-ème partie du «Manuel des Pêches Maritimes Françaises» qui traite de la grande pêche dans le centre d'Islande et dans celui de Terre-Neuve, avec référence spéciale à l'armement, aux ports d'armement et aux bateaux de pêche, au matériel et au personnel de pêche.

**Beaugé L.** - L'Evolution des idées dans la grande pêche. – Pêche Marit., Pêche fluv. et Pisicult., XVIII, 148-149. Paris (1935). **b - 1760**

**Belloc G. & Le Gall J.** - La pêche littorale. – 18 fig., tabl., Mém. Off. Pêches Marit., Man. Pêches Marit. Franç., Sér. Spéc., 10, 2, 151-175. Paris (1935). **b - 1761**

Chapitre IV de la III-ème partie du «Manuel des Pêches Maritimes Françaises», contenant la description des différentes méthodes de pêche littorale, avec référence spéciale aux filets fixes, aux filets flottants, aux sennes, à la pêche des civelles, aux dragues à coquilles, aux nasses, carrelets, foënes et épuisettes, et à la pêche à l'hameçon le long des grèves.

**Brunelli G.** - La pesca meccanica in relazione alle risorse ittiche dei nostri mari. – Atti Conv. Pesca Meccan. (Bari, 7 settembre 1934-XII), 10-13. Roma (1934). **b - 1762**

La pesca meccanica in Italia, affermatasi da un quindicennio, ha portato un notevole aumento di prodotti sui mercati nazionali. Non solo il mare non si è esaurito, ma nuove qualità di pesce e di crostacei sono state in gran quantità tratte dalle pesche profonde. Il progresso delle costruzioni del naviglio meccanico italiano è adeguato alla possibilità del rendimento dei nostri mari. L'Italia ha nel Mediterraneo l'assoluto primato della pesca meccanica.

**Coceani B.** - La pesca meccanica e le sue esigenze nei confronti della legislazione degli altri Stati. – Atti Conv. Pesca Meccan. (Bari, 7 settembre 1934-XII), 13-26. Roma (1934). **b - 1763**

Le emigrazioni pescherecce in relazione alla pesca meccanica. Attività straniera nel campo della pesca. Esigenze della pesca meccanica nei rapporti internazionali.

**Dierks** - Die deutsche Hochseefischerei im Jahre 1935 und ihre Aussichten. – Tab., Dtsch. Fisch.-Rundschau, 1, 3-5. Bremerhaven (1935). **b - 1764**

**Eichler C.** - Ueber Neuerungen im Schiffsantrieb bei Fischereifahrzeugen. – Dtsch. Fischwirt., II, 5, 79-80. Berlin (1935). **b - 1765**

In der vorliegenden Arbeit beschäftigt sich Vf. mit der Entwicklung der unmittelbaren Antriebsorgane des Schiffes in der letzten Zeit und deutet ihre neuen Verbesserungsmöglichkeiten an.

**Ferrario A.** - I motori per la pesca marittima. – Atti Conv. Pesca Meccan. (Bari, 7 settembre 1934-XII), 26-49. Roma (1934). **b - 1766**

Caratteristiche dell'ambiente peschereccio all'avvento del Fascismo. La motorizzazione dei natanti da pesca. Macchine italiane e macchine straniere. Vari tipi di motori a combustione interna. Uno sguardo al futuro. Sviluppo della motorizzazione. La struttura finanziaria delle imprese di pesca. Guardia sul mare.

**Fick H.** - Die Finkenwärder Hochseefischer als Pioniere in der Dampferfischerei. – Fischmarkt, III, 2, 37-41. Cuxhaven (1935). **b - 1767**

Geschichtliches über die Finkenwärdische Hochseefischerei mit besonderer Berücksichtigung des Anteils der finkenwärdischen Fischer an der Entwicklung der deutschen Dampferfischerei.

**Fick H.** - Die technische Entwicklung der unterelbischen kleinen Hochseefischerei. – Fischmarkt, III, 11, 288-295. Cuxhaven (1935). **b - 1768**

Rückblick auf die Entwicklung der kleinen Hochseefischerei von Finkenwärder und Blankenese, mit besonderer Berücksichtigung der Verbesserung der Schiffskörper, der Formgebung und Einrichtung der Segel; der Einfluss der englischen Bauweise auf die unterelbischen Fischer; Einführung der scharfen Kutter nach dem Beginn der Austern- und der Schleppnetzfischerei; Erfindung des Verbrennungsmotors und die letzten Entwicklungsstufen der Fischereitechnik der unterelbischen Fischerei.

**Fischer E.** - Die Küstenfischerei in der Nord- und Ostsee und die Kutterhochseefischerei. – Jahresber. Dtsch. Fisch., 1933, 196-213. Berlin (1934). **b - 1769**

**Franco G.** - La consistenza industriale ed economica della pesca meccanica. – Atti Conv. Pesca Meccan. (Bari, 7 settembre 1934-XII), 53-63. Roma (1934). **b - 1770**

Dati statistici sulla consistenza numerica dei battelli a propulsione meccanica; loro attività peschereccia, tonnellaggio e loro valore patrimoniale. Quantitativo e valore del prodotto annuale della pesca meccanica. Spese di esercizio gravanti sull'industria per il suo normale funzionamento annuale.

**Gerbosch E. A.** - La remarquable évolution de la pêche à moteur en Belgique. – 3 fig., 2 tabl., VII<sup>e</sup> Congr. Int. Aquicult. & Pêche, Paris 1931, Communications, III, 118-125. Impr. du Loiret. Orléans (1935). **b - 1771**

Les débuts du moteur marin en Belgique. Production des moteurs comparativement aux vapeurs et production comparative des moteurs en 1929 et 1930. Conclusions.

**Hachey H. B.** - The Weather, Man and Coastal Fisheries. – Maps, diagrs. Trans., Amer. Fish. Soc., LXIV, 382-389. Washington D. C. (1934). **b - 1772**

**Hilker C.** - Die deutsche Hochseefischerei im Spiegel der Tagespresse. – Dtsch. Fisch.-Rundschau, 1, 1-2. Bremerhaven (1935). **b - 1773**

**Hilker C.** - Vorläufer der Hochseefischerei. – Dtsch. Fischwirt., II, 9, 152-153. Berlin (1935). **b - 1774**

Näherer Umriss der Anfänge und der Entwicklung der deutschen Hochseedampffischerei. Entwicklung der Bauarten und der verschiedenen Arten des Fanges.

**Laurinat K.** - Wege zur Qualitätshebung in der deutschen See- und Küstenfischerei. – Dtsch. Fischwirt., I, 32, 549-551. Berlin (1934). **b - 1775**

**Le Gall J.** - La pêche aux lignes. – 7 fig., Mém. Off. Pêches Marit., Man. Pêches Marit. Franç., Sér. Spéc., 10, 2, 140-150. Paris (1935). **b - 1776**

Chapitre III du « Manuel des Pêches Maritimes Françaises », III-ème partie: La pêche aux lignes à mains et aux cordes ou « palangres ». Les petites et les grandes cordes. Les cordiers à vapeur.

**Legasse F. L.** - Histoire de la grande pêche. – 1 carte, 11 fig., Mer et Outre-Mer, Juin, 25-32. Paris (1935). **b - 1777**

Différentes hypothèses au sujet de la découverte des bancs de la Terre-Neuve et de l'origine de la pêche dans cette région. Les premiers règlements pour la pêche; méthodes de pêche et de préparation; bateaux et engins. Conditions actuelles: danger de surproduction.

**Lundbeck J.** - Die Erträge der Hochseefischerei im Juni 1935. – 1 Tab., Dtsch. Fisch.-Rundschau, 14, 316. Bremerhaven (1935). **b - 1778**

Statistische Angaben über die Fangerträge der deutschen Hochseefischerei bei Island und in der Nordsee, je Fangtag in Zentner.

**Lundbeck J.** - Warum nur in bestimmten Teilen des Weltmeeres Hochseefischerei ? und die Antwort. – Dtsch. Fischwirt., II, 11, 184-185. Berlin (1935). **b - 1779**

Der hauptsächliche Grund dieses Umstands ist in dem Mangel an Absatz zu suchen.

**M' Cann J.** - Eine britische Meinung über die Zukunftsaussichten der Hochseefischerei. – Dtsch. Fisch.-Rundschau, 23, 529-530. Bremerhaven (1935). **b - 1780**

Reichlich pessimistische Betrachtungen über die Zeiten der Depression und die grossen Unkosten der Hochseefischerei des ausgeschiedenen Präsidenten der « Hull Steam Trawlers' Mutual Insurance Co. ».

**Mikhajlov S.** - Développement de la pêche au chalut soviétique sur le littoral de l'Islande. (En russe). – Fig. & tabl., Za Rybn. Ind. Sev., 7, 12-15. Leningrad (1934). **b - 1781**

**O 'Malley H.** - Sport Fishing in Alaska. – 1 map, 12 figs., U. S. Dpt. Comm., Bur. Fish., Fish. Circ., 13, 1-18. Washington D. C. (1933). **b - 1782**

Facilities; season, localities. Marine game fish: Fishes of coastal streams. Methods, spinning or strip fishing for salmon; laws and regulations.

**Peters N.** - Angeln. – 54 Abb. i. T., 7 Taf., Handb. Seefisch. Nordeurop., IV, 4, 1-48. Stuttgart (1935). **b - 1783**

Der Angelhaken. I. Die geschichtliche Entwicklung des Angelhakens und seine einfachen Gebrauchsformen bei Natur- und Kulturvölkern. II. Die Gebrauchsformen des neuzeitlichen Angelhakens aus Stahl. III. Der Angelhaken als Hilfsmittel bei der Erforschung von Fischwanderungen. Die Angelgeräte.

**Pierce W. G.** - Goin' Fishin': The Story of the Deep-Sea Fishermen of New England. – Phot., sketches. Mar. Research Soc. Publ. 26, Salem, Mass. (1935). **b - 1784**

The first chapter contains an account of the early cod fishery of New England, from 1623 to 1835, the second concerns the mackerel hand-line fishermen, from 1626 to 1864, as well as the later development of the fisheries of their country. Glossary of terms used by fishermen.

**Schnakenbeck W.** - 50 Jahre deutscher Dampferfischerei. – 3 Abb., 2 Tab., Fischmarkt, III, 2, 32-37. Cuxhaven (1935). **b - 1785**

Geschichtliches über die Verwendung der Dampfkraft in der Fischerei; Einführung der Dampfer in die deutsche Seefischerei; Einfluss der Einführung von Maschinenkraft auf die Fangfähigkeit und Ladefähigkeit, sowie auf den Aktionsradius der Schiffe; erfreuliches Bild der Entwicklung der deutschen Dampferfischerei der 50 Jahre seit ihrer Entstehung.

**Tricoche G. N.** - The Shore Fishery in Newfoundland. – Canad. Fisherm., XXII, 3, 20-21. Gardenvale, Que. (1935). **b - 1786**

Disappointing condition of the shore fishery of Newfoundland in 1934; different ways of shore fishing in Newfoundland, according to the season; distressing condition of fishermen; facilities accorded by the Commission-of-Government to prospective boat-builders in order to rescue the shore fishery of the country.

**Wiese E.** - Noch immer Kriegsschäden für die kleine Hochseefischerei. – Dtsch. Fischwirt., II, 12, 199. Berlin (1935). **b - 1787**

Schäden, die die Netze der Seefischer auf den verschiedenen Fanggründen der Nordsee leiden, wo als Ueberbleibsel des Weltkrieges öfters stählerne Reste von Minensperren vorkommen, an denen die Netze unbedingt hängen bleiben.

**Institut für Seefischerei** - Die Erträge der deutschen Hochseefischerei im September 1935. – 1 Tab., Dtsch. Fisch.-Rundschau, 21, 486. Bremerhaven (1935). **b - 1788**

Statistische Angaben über die Fischerei in Island, an der Bäreninsel, in der Barents- und Nordsee, und über die Heringsfischerei. (Für die Monate Juli, Oktober und November s. diese Ztschr. S. 366; 533; 580-581).

**Seefischmarkt A. G. Wesermünde.** - Die Hochseefischerei im Jahre 1934. Dtsch. – Fischwirt. II, 1, 1-3. Berlin (1935). **b - 1789**

Statistische Angaben und allgemeine Betrachtungen, aus welchen es hervorkommt, dass im Jahre 1934 die Hochseefischerei eine weitere Ausdehnung erfahren hat: Verhältnisse des Küstengrosshandels; Massnahmen zur weiteren Vergrössung der Produktion.

**M.** - See- und Küstenfischerei in Preussen und Mecklenburg im 2. Vierteljahr 1935. – Dtsch. Fischwirt., II, 37, 708-710. Berlin (1935). **b - 1790**

Bericht über die Fischerei im Nordseegebiet: Ostfriesland und Weser, Elbe und westholsteinische Küste, im Ostseegebiet: Oberfischmeisterbezirke Kiel, Stralsund, Swinemünde, Kolberg, Labjau, Kurisches Haff, Mecklenburg: Bezirk Wismar und Ribtniz.

**An.** - 50 Jahre Dampf-Hochseefischerei. – 2 Fig. Dtsch. Fisch.-Rundschau, 3, 49-54. Bremerhaven (1935). **b - 1791**

Ausschnitte aus der « Deutschen Fischerei-Zeitung » während der '80-zigen Jahre des vorigen Jahrhunderts mit Kommentaren, welche die ersten Schritte der deutschen Dampf-Hochseefischerei und ihre weitere Entwicklung schildern.

**An.** - Die Absatznotlage der Küstenfischerei. – Dtsch. Fisch.-Rundschau, 6, 120-122. Bremerhaven (1935). **b - 1792**

Wiedergabe eines längeren Vortrages über die Absatznotlage der deutschen Küstenfischerei, von P. P. Hiltner, gehalten während der Tagung der Küstenfischerei der Nordsee, Ende Februar 1935 in Marne (Holstein).

**An.** - Drei grundlegende Neuerungen in der Hochseefischerei. – 2 Abb., Dtsch. Fisch.-Rundschau, 14, 314-315. Bremerhaven (1935). **b - 1793**

1. Versuch der Fischgesellschaft « Nordsee » einen Fischdampfer so hinzurichten, dass er sowohl für die Fischerei mit dem Schleppnetz, als für die Fischerei mit dem Treibnetz geeignet ist. 2. Einrichtungen eines Loggers mit Schleppnetzausrüstung. 3. der Bau von kleinen Schleppnetzfahrzeugen für die Nordseefischerei.

**An.** - Die Oberschiffmeister berichten über die Küstenfischerei. (Fischereibericht für Juni 1934). – Dtsch. Fischwirt., I, 14, 224-226. Berlin (1934). **b - 1794**

Bericht über Witterung, Fischfang und -absatz im Nordsee- und Ostseegebiet.

**An.** - 50 Jahre deutsche Hochseefischerei! – Dtsch. Fischwirt., II, 6, 93-94. Berlin (1935). **b - 1795**

Ausführungen anlässlich des Jubiläums der deutschen Dampfhochseefischerei, die auf eine 50 jährige Geschichte und eine geradezu beispiellose Entwicklung im Dienste an der Fischversorgung zurückblicken kann.

**An.** - « Little David ». – 1 fig., Fish. Gaz., LI, 2, 21. New York (1934). **b - 1796**

Description of a new 45-footer of interesting design. Separate engine room, unusual in craft of this size, is one of its features.

## *Classiculae piscatoriae.*

**Bauwens R.** - Coup d'œil rétrospectif sur l'évolution de la flottille de pêche belge. – VII Congr. Int. d'Aquicult. & Pêche, Paris 1931, Communications, III, 113-117. Impr. du Loiret. Orléans (1935). **b - 1797**

Histoire et conclusions.

**Fick H.** - Die Finkenwärder Hochseefischerflotte im Jahre 1934. – Fischmarkt, III, 3, 74-76. Cuxhaven (1935). **b - 1798**

Statistische Angaben über die Fangverhältnisse und Ergebnisse der Finkenwärder Hochseefischerflotte im Jahre 1934 mit besonderer Berücksichtigung der einzelnen Monate und der bemerkenswerten Hilfe der von der Reichsregierung bewilligten Zuschüsse, sowie der durchgeführten Motorisierung der Fischereiflotte.

**Heater W. M.** - Victoria's Whaling Fleet. – Canad. Fisherm., XXII, 11, 22. Gardenvale, Que. (1935). **b - 1799**

Brief account of modern whaling written by a well-known whaling captain of Victoria, with special regard to the modernization and the increase of efficiency of the modern whaling industry.

**Mikhov F.** - La naissance de la flottille des chalutiers. (En russe). – 6 fig., Za Rybn. Ind. Sev., 5, 9-11. Leningrad (1935). **b - 1800**

**Peace H. L.** - With the Florida Fishing Fleets. – Fish & Oyst. Rep., XVI, 3, 14-15; 5, 14-15. Tampa, Fla. (1935).

( — ) With the Florida Shrimp Fleet.-Fish & Oyst. Rep., XVI, 6, 14; 7, 13. Tampa, Fla. (1935). **b - 1801**

Brief information about results of catches, new craft built, prices paid for some fish, etc., in various fishing centers of Florida.

**Poujade J.** - Pêche aux bœufs dans le Golfe du Lion. – 12 fig., Mer et Outre-Mer, Août, 48-51 Paris (1935). **b - 1802**

Récit d'une excursion de pêche sur des bateaux à voile, nommés « bœufs ».

**Zhilinskij A.** - La flotte baleinière de la Norvège. (En russe). – Za Rybn. Ind. Sev., 11, 43-44. Leningrad (1934). **b - 1803**

**An.** - Fishing Fleet in the Barents Sea. (In Russ. & Engl.). – Bull. Arct. Inst., 8/9, 316-317 & 345-346. Leningrad (1934). **b - 1804**

Information on the reorganization and development of the fishing fleet in the Barents Sea; new fishing units built.

**An.** - Vor der Ausrüstung einer deutschen Walfangflotte. – 3 Abb., Dtsch. Fisch.-Rundschau, 10, 217-219. Bremerhaven (1935). **b - 1805**

Veröffentlichung eines hamburgischen Pressedienstes, welche Prophezeiungen und Rentabilitätsberechnungen in Bezug auf die Frage der Neubeteiligung Deutschlands an dem internationalen Walfang enthält.

## *Naviculae earumque constructio – Instrumenta – Motores – Radioapparatus.*

**Botchek A.** - Service d'un bateau de chasse et de pêche à l'Ile Wrangel. (En russe). – Za Ind. Sov. Vost., 3, 243-245. Moskva (1934). **b - 1806**

**Bretthofer W.** - Hat die Nordseefischerei noch eine Zukunft? Noch eine Bemerkung zur Frage besonders stark gebauter Fischkutter. – Dtsch. Fischwirt., II, 31, 611. Berlin (1935). **b - 1807**

Einige Betrachtungen über den Bau und Gebrauch grosser Kutter, die sich gleichermassen für die Waden- und Schleppnetzfischerei eignen, in der Nordseefischerei und über die Möglichkeit in dieser Weise diese Fischerei auf eine neue und rentable wirtschaftliche Grundlage zu stellen.

**Corsico M.** - Guida pratica per la costruzione di barche da diporto, corsa, pesca, carico, fluviali, lacuali, lagunari e marine. – 460 fig., 313 pp., Un. Tipogr. Ed. riv. « Motonautica - La vela ed il motore ». Milano (1935). **b - 1808**

Il volume offre al piccolo costruttore una guida facile, piana e sicura, e nel tempo stesso dilettevole e interessante, per la costruzione del piccolissimo naviglio da diporto o di servizio, e specialmente delle barche da spiaggia e da riva, di poca portata e facilmente trasportabili.

**Hill H. O.** - East Cornish Luggers. – 11 fig., 3 pls., Mar. Mirr., XXI, 3, 225-244. London (1935). **b - 1809**

Development of the type of the luggers of the fishing port of east Cornwall, namely Looe, and Mevagissey, illustrated with detailed descriptions of some of the most known boats of this type.

**Ikonnikov** - La radiofication des chalutiers. (En russe). – 3 fig., Za Rybn. Ind. Sev., 5, 28-29. Leningrad (1935). **b - 1810**

**Le Masson H.** - Les Baleiniers modernes sont d'importantes "Usines flottantes". – Rev. Ind., LXV, 2307, 65-69. (1935.). **b - 1811**

Différents types de baleiniers sont décrits et illustrés dans ce travail, dont une partie concerne l'industrie de la pêche à la baleine.

**Nidever H. B.** - Commercial Fishing Boat Numbering System. – 4 figs., 1 table. Div. Fish & Game, Bur. Comm. Fish., Fish Bull., 44, 29-36. Sacramento, Ca. (1935). **b - 1812**

Author illustrates the registering system applied to the fishing boats or vessels in the state's fisheries, since the law has been enforced in 1919 which provides that such boats shall be registered each year. He gives the combination form of boat registration and fisherman's license application initiated April 1, 1933.

**Oomori S.** - Studies on the Piston Ring of Semi-Diesel Engines for Fishing Motor Boat. (Preliminary Report). I. Air Tightness of the Piston Ring. (Jap. Text, Engl. Rés.). – 7 fig., 1 tabl., Bull. Jap. Soc. Scient. Fish., IV, 1, 15-20. Tokyo (1935). **b - 1813**

Tests with one piston ring only, and with three rings together–as well as with surfaces of the ring polished in different ways.

**Whynacht R. M.** - Lunenburg Fishing Schooner 1935 Model. – 7 figs., Canad. Fisherm., XXII, 1, 9-12. Gardenvale, Que. (1935). **b - 1814**

Full details of the lines, construction and equipment of the auxiliary banker « E. F. Zwicker », constructed at Lunenburg. She is able to remain at sea in all weathers and is the last word in every feature that ensures good care of the fish caught, economy of operation, and reduction of time on passages from and to the Banks.

**Zhilinskij A.** - Sur le type de navire pour la chasse maritime. (En russe). – Za Rybn. Ind. Sev., 6, 8-11. Leningrad (1933). **b - 1815**

**Manufacturers' Engineers** - Fishing Boats Engines. – Fish. Gaz., Ann. Rev. Numb., 39-41. New York (1935). **b - 1816**

Description of salient points of different fishing boat engines, made by manufacturers' engineers of American motor-building firms.

**The Technical Editor** - New Equipment for Vessels. – 2 ills., Fish. Gaz., Ann. Rev. Numb., 12-13. New York (1935). **b - 1817**

Brief account of the novelties introduced during 1935 in the fishing vessels' equipment, with special reference to storage batteries, generators, electrical equipment, trawl winches, windlasses, pumps, filters, piston rings, couplings, clutches, stoves, fire alarm and extinguisher.

**The Technical Editor** - Engine Digest. – 1 table. Fish. Gaz., Ann. Rev. Numb., 17, 19, 22, 33-38. New York (1935). **b - 1818**

List including the principal specifications of gasoline, oil and Diesel engines suitable for commercial fishing craft, brought up-to-date for the Annual Review Number of the « Fishing Gazette ».

**An.** - The Trawler Question. – Canad. Fisherm., XXII, 2, 9-10. Gardenvale, Que. (1935). **b - 1819**

Some considerations on the advantages and the disadvantages of the operation of steam trawlers.

**An.** - Der Dieselmotor in Schiffsbetrieb I. – 3 Abb., Dtsch. Fisch.-Rundschau, 10, 222-223. Bremerhaven (1935). **b - 1820**

Beschreibung einiger neuzeitlichen Dieselmotoren, welche sich gut zum Aufbau auf Fischereischiffe eignen.

**An.** - Logger "Grosser Kurfürst" als Versuchsschiff. – 1 Fig., Dtsch. Fisch.-Rundschau, 16, 359-360. Bremerhaven (1935). **b - 1821**

Bericht über den Bau des Loggers « Grosser Kurfürst », welcher den ersten Angriff darstellt, die alljährliche von Dezember bis Mai dauernde tote Saison der Heringsfischerei zu werten. Einige Einzelheiten des Baues des Loggers, die ihm diese Aufgabe erleichtern.

**An.** - Neuzeitliche Funkstationen auf Fischdampfern. 2 Fig., Dtsch. Fisch.-Rundschau, 17, 381-383. Bremerhaven (1935). **b - 1822**

Beschreibung einer modernen Funkanlage an Bord eines Fischdampfers.

**An.** - A Review of the Trend in Vessel Design and Construction. – 2 phot., Fish. Gaz., Ann. Rev. Numb., 10. New York (1935). **b - 1823**

Illustration of two new boats built respectively on the Atlantic and Pacific coasts of the United Stated, showing the trend in fishing vessels' design and construction on both the coasts.

**An.** - Engine Development in Review. -- Fish. Gaz., Ann. Rev. Numb., 14-15. New York (1935). **b - 1824**

Attention is called to the brand-new engines and to some of the new boats and re-powering jobs brought out since the last (1934) Annual Review Number of the « Fishing Gazette ».

**An.** - New and Standard Equipment for Fishing Craft. – 30 figs., Fish. Gaz., LII, 1, 6-15. New York (1935). **b - 1825**

A summary of some of the more important items available to those outfitting their boats, with special reference to the National Motor Boat Show, held January 18-26, 1935, in New York City.

**An.** - Six Engines Recently Introduced. – 6 figs., Fish. Gaz., LII, 2, 11-13. New York (1935). **b - 1826**

Further refinement of design noted in the offerings at Motor Boat Show. Description of new, or fairly new, engines of particular interest to fishermen.

**An.** - A Startling Shortage of Vessels Invites Building Boom and Gain in Equipment Sales. – 4 tabl., Fish. Gaz., LII, 2, 14-15. New York (1935). **b - 1827**

Statistical Government figures which show estimated drop of over 23.000 in number of fishing boats and vessels in 1934, taking 1928 statistics as base. Condition of the fishing industry in 1935 and considerations as to its further development in 1936.

**An.** - Large Type Shrimp Trawler. – 1 fig., Fish & Oyst. Rep., XVI, 10, 15. Tampa, Fla. (1935). **b - 1828**

Description of one of the most modern boats built in recent years and launched in Florida waters in September 1935.

# LOCA AD PISCANDUM

## *Fundi et loca piscosa eorumque inventio – Variatio piscium turmarum.*

**Andersson K. A.** - Baltic Area 1934. – 2 fig., 1 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 2-ème partie, Rapp. administr. (1934-1935), 55-61. Copenhague (1935). **b - 1829**

Denmark: Biology (Plaice, Flounder, Turbot, food of herring). Germany, Finland: Biology. Latvia: Statistics, Biology (the Fishery Laboratory and the Hydrobiological Station). Poland: Hydrography, Fisheries investigations, Biological Salmon investigations. Sweden: Biology (Herring, Flounder, Plaice, Turbot, Cod, Salmon and Sea Trout. Plankton. Hydrography). Summary of 1934- cruises.

**Bartz F.** - Die Fischereigebiete an der Westküste Afrikas. – Fischmarkt, III, 6, 144-147. Cuxhaven (1935). **b - 1830**

Grösse, Umfang, geschichtliche und wirtschaftliche Bedeutung der nordwestafrikanischen und südwestafrikanischen Gebiete, welche die einzigen atlantischen Schelfregionen sind, in denen der grosse Fischreichtum auf kaltes, aus der Tiefe aufsteigendes Auftriebwasser zurückzuführen ist.

**Belknap J. C.** - Banksmen of Lunenburg. Winter Fishing in the « Marguerite B. Tanner ». – 8 figs., Canad. Fisherm., XXII, 5, 9-12 & 32; 6, 11-14 & 28; 7, 9-10. Gardenvale, Que. (1935). **b - 1831**

Foundation of the town of Lunenberg and its important codfishery (dried salt codfish); diminution of this market during the great war and development of a new branch: fresh fishing. Account of A: s trip on the modern fishing craft of Lunenberg in March 1935.

**Belloc G.** - La coopération de la navigation aérienne. – 2 fig., Mém. Off. Pêches Marit. (Sér. Spéc.), 9: Man. Pêches Marit. Franç., 1, 130-133. Paris (1935). **b - 1832**

Bref compte-rendu des résultats de certaines expériences entreprises depuis 1918 pour le repérage des bancs de poisson par aéronef.

**Blegvad H.** - Transition Area Committee 1934. – 6 fig., Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 2-ème partie, Rapp. administr. (1934-1935), 43-54. Copenhague (1935). **b - 1833**

Denmark: Plaice investigations, other Flatfish, Cod and other *Gadidae*, Herring, Mackerel and Eel, Larvae of spring spawning Fishes, Anchovy, Norwegian Prawn, bottom Invertebrates, Plankton, Cod transplantation to the Limfjord, investigations concerning the disease of *Zostera marina* and fish-diseases. Publications. Germany: Plaice. Norway. Sweden: Haddock, Herring, Plankton. Publications.

**Bückmann A.** - Southern North Sea 1934 – 2 tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 2-ème partie, Rapp. administr. (1934-1935), 29-42. Copenhague (1935). **b - 1834**

Introduction. Work at Sea. Fish: General, Cod and Haddock, Herring, Plaice, other Fish. Shellfish. Benthos and Deposits. Plankton. Hydrography. Scientific papers connected with the Committee's work published in 1934.

**Buvik L. E.** - Beretning om fisket i Vårsilddistriktene (Sogn og Fjordane, Vest-Agder fylker) 1932-33. – Tabl., Årsber. v. Norg. Fisk., 1933, 5, 104-119. Bergen (1935). **b - 1835**

Données statistiques et rapports sur le rendement de la pêche, des bateaux, de différents engins de pêche etc., pour harengs et morues.

**Clark S. R.** - Northern North Sea 1934. – Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 2-ème partie, Rapp. administr. (1934-1935), 20-28. Copenhague (1935). **b - 1836**

General remarks on the influx from the Atlantic water- masses and the following changes in the composition and distribution of the plankton and the larvae, fluctuations of the stock. Plan of unifying the reports. Denmark. England. France: Work at Sea, Herring, Haddock. Megrim, Plankton. Germany. Holland. Norway. Scotland: Work at Sea, Hydrography, Plankton, Fisheries and Fish. Bottom Fauna. Summary of 1934- cruises.

**Heldt H.** - Nouvelles expériences pour le repérage des bancs de poissons par hydravion et ballon captif remarqué. – VII Congr. Int. Aquicult.

& Pêche, Paris 1931, Communications, III, 83-86. Impr. du Loiret. Orléans (1935). **b - 1837**

De l'impossibilité matérielle pour les naturalistes de poursuivre désormais de telles recherches en Tunisie.

**Hogarth G.** - Use of Aircraft for Locating Fish Shoals. (In Engl., French Rés.). – VII Congr. Int. Aquicult. & Pêche, Paris 1931, Communications, III, 75-82. Impr. du Loiret. Orléans (1935). **b - 1838**

First initiative of use of aircraft for locating fish shoals. Experiments carried out with a special reference to those undertaken by the Fishery Board for Scotland during 1921-1924 and from 1928. Results rather negative; new suggestions.

**Jensen A. J. C.** - Periodic Fluctuations in the Size of various Stocks of Fish and Their Causes. – Medd. Komm. f. Danm. Fisk.- og Havunders., Ser. Fisk., IX, 5. København (1933). **b - 1839**

**Lundbeck J.** - Die Fangerträge in der Barentssee, bei der Bäreninsel und an der norwegischen Küste in der Fangzeit 1933-1934. – 3 Tab., Dtsch. Fisch.-Rundschau, 21, 484-485. Bremerhaven (1935). **b - 1840**

Umfang und Ergebnis der Fischerei; die wichtigsten Nutzfische; entgegengesetzte Veränderungen bei dem Kabeljau und dem Schellfisch; Durchschnittserträge je Fangtag in Zentner; Grössenzusammensetzung der Fänge; Verschiebungen in der Verteilung der Fischbestände.

**Magnusson M.** - Are North Atlantic Banks Being Fished Out? - No. – 2 phot., Fish. Gaz., LII, 13, 6-7. New York (1935). **b - 1841**

On hand of statistic and other records A. shows that the North Atlantic fishing banks are not fished out as it is generally admitted.

**Ossadtchikh M.** - Les ressources nutritives de la Mer de Barentz. (En russe). – Za Rybn. Ind. Sev., 9, 4-5. Leningrad (1934). **b - 1842**

**Redeke H. C.** - De Noordzeevisserij. – Ills., 104 pp., De Arbeiderspers. Amsterdam (1935). **b - 1843**

**Sund O.** - North-Eastern Area 1934. – Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 2ème partie, Rapp. administr. (1934-1935), 8-10. Copenhague (1935). **b - 1844**

Germany: Tätigkeitsbericht für die N. O.- Area für 1934. Norway: The Fisheries Directorate, Cod, Herring, Sprat (investigations). German and Norwegian publications on work carried out in the N.–E. Area in 1934. Cruises: Germany, Norway, Scotland.

**Tåning Å. V.** - North-Western Area 1934. – Tabl., Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 2ème partie, Rapp. administr. (1934-1935), 11-16. Copenhague (1934). **b - 1845**

Denmark, Faroes, Iceland, Denmark Strait, Greenland: Whales, racial, plankton and other investigations, hydrography. England, France, Germany, Norway, Scotland. Literature. Summary of 1934- cruises.

**The Imperial Fisheries Experimental Station (Japan).** - On the Fishing Bank Lying between Inatori and Ôsima (Sagami Nada). (In Jap.). – 2 pls., Hydrogr. Bull., XIII, 351-352. Tokyo (1934). **b - 1846**

The bank discovered during the expedition of the « Sôyô Maru » has a minimum depth of 208 meters and a base of 6 km. in N.-S. direction, and 3,5 km. in E.-W. direction.

**An.** (trad. du russe par le Capit. Cochin). - Industrie de la pêche dans les mers arctiques. – 3 tabl., Rev. Trav. Off. Pêch. Marit., VII, 3, 334. Paris (1934). **b - 1847**

Données statistiques, empruntées à une publication russe et basées sur les renseignements statistiques publiés récemment par le Congrès International pour l'étude de la Mer, dont il résulte que l'industrie de la pêche s'est accrue d'une manière considérable au cours des dernières années dans la Mer de Barentz, sur les côtes du Groenland et dans les régions Nord et Nord–Ouest de l'Europe.

## *Tabulae et statisticae ad fundos piscosos pertinentes.*

**Clark G. H.** - Logs on California Trawlers. – 3 figs., Div. Fish. & Game, Bur. Comm. Fish., Fish Bull., 44, 37-40. Sacramento, Calif. (1935). **b - 1848**

Author points out the importance of the fishing vessels' log for the development of the fisheries statistics in California and gives some details of the log book plan developed and applied to the boats operating trawls out of San Francisco, and of the first year's records (January-December, 1934).

**Conner G.** - Modernizing Commercial Fisheries Statistics. – 10 figs., Div. Fish & Game, Bur. Comm. Fish., Fish Bull., 44, 11-28. Sacramento, Calif. (1935). **b - 1849**

Development of the statistical system of the Bureau of Commercial Fisheries of California, depending not on paid employees of the state, but upon the people of industry.

**Kouznetzov N. M.** - L'industrie de la pêche de la Région du Nord. (En russe). – Choz. Sev., 9, 39-45. Arkhangheljsk (1934). **b - 1850**

Données statistiques pour les années 1932, 1933 et 1934.

**Lundbeck J.** - Die Ertragsstatistik der Hochseefischerei als Mittel der wissenschaftlichen Fischereiforschung. – 2 Tab., Fischmarkt, III, 8, 200-203. Cuxhaven (1935). **b - 1851**

Bedeutung der Fischereistatistik für die Schätzung der Ergiebigkeit des Meeres und des Wertes der einzelnen Meeresgebiete für die Fischerei. Schwierigkeiten einer eindeutigen Festlegung des Ertrages der Fischerei. Die bei der Fischerei angewandten statistischen Methoden und die mit ihnen erhaltenen Ergebnisse in Bezug auf die Fischerei einzelner Fischereigebiete mit besonderer Berücksichtigung der Fischerei unter Island und im Barentsmeere. Betrachtungen über die Gründung von Forschungsstellen an den einzelnen Fischmärkten.

**Russo A.** - Statistiche raccolte nel 1932 su la pesca con fonti luminose nel Golfo di Catania e dati relativi alla produzione. – Boll. Pesca, Piscicolt. e Idrobiol., XI, 1, 10-32. Roma (1935). **b - 1852**

La pesca luminosa esercitata nel 1932 con la *pulica* e la *menaida*, negli alti fondali del golfo di Catania ha dato una produzione considerevolmente maggiore degli anni precedenti. Il prodotto totale da aprile ai primi di ottobre 1932 è stato di q.li 4326,10 complessivamente. I dati per giorno, mesi, località e profondità, rendimento in quintali per ogni specie di pesce, e prezzo del pesce stesso, sono riuniti in un elenco.

**Scofield W. L.** - Fisheries Statistics: Achievements Through Flexibility. – Div. Fish & Game, Bur. Comm. Fish., Fish Bull., 44, 7-10. Sacramento, Calif. (1935). **b - 1853**

Author looks back over the accomplishments of the last sixteen years in the development of fisheries statistics in California. He illustrates the practical application of those statistics and gives some examples of the direct application of them to conservation practice and a proper management of fisheries resource.

**Thompson D'Arcy W.** - Bulletin Statistique des pêches maritimes des pays du Nord et de l'Ouest de l' Europe publié par le Bureau du Conseil. – 17 tabl., 2 maps, Cons. Perm. Expl. Mer, Bull. Stat. pour 1933, XXIII, 1-51. Copenhague (1935). **b - 1854**

Charts of statistical areas. Part I: A brief summary of the statistical tables. North Sea fisheries, « Small fish » in the North Sea catch. The fisheries of Skagerak and Kattegat. The herring fishery. Part II: Tables. Names of fishes.

**Administration de la Marine - Bestuur Van Het Zeewezen.** - Rapport sur la pêche maritime. Statistiques 1932-1933. Jaarverslag over de Zeevisscherij. Statistieken 1932-1393. (En franç. et flam.). – Tabl., 79 pp. Bruxelles (1934). **b - 1855**

Le présent rapport se compose des parties suivantes: Ch. de Zuttere-Conseil Supérieur de la Pêche Maritime (1932-1933). R. Verschelde: Commission de Mariculture et de Myticulture (1932-1933). G. Velthof: L'Institut Maritime d'Ostende. Tables Statistiques, contenant des données sur la pêche maritime belge, les organisations des pêcheurs, les engins et bateaux de pêche, etc.

**Department of Trade and Commerce** - Advance Report on the Fisheries of Canada, 1934. (Quebec, the Prairie Provinces, British Columbia, New Brunswick, Nova Scotia, Prince Edward Islands). – 54 tabl., 72 pp., Dept. Trade & Comm., Fish. Statistics. Ottawa (1935). **b - 1856**

Statistics on the quantity and value of the fish caught and marketed, capital equipment and number of employees in the fisheries of Canada.

**Deutscher Reichnährstand** - Der Aussenhandel mit Fischen und Fischwaren im Jahre 1934 in (dz) Eigenbericht. – 1 Tab., Dtsch. Fischwirt., II, 6, 95, 98-99. Berlin (1935). **b - 1857**

Statistische Angaben über Einfuhr and Ausfuhr von frischen Heringen und Sprotten, Salzheringen, frischen Seefischen, Süsswasserfischen, dem Meere entstammenden Schaltieren, gesalzenen Lachsen usw., Kaviar, Sardellen, Stockfischen, Klippfischen, zubereiteten Fischen, Sardinen und anderen Fischen und Fischzubereitungen in luftdichten Behältern.

**Dominion Bureau of Statistics-Fisheries Statistics Branch** - Fisheries Statistics of Canada 1933. (In Engl. & French.). – Phot., 19 tabl., 281 pp., Min. Trade & Comm. Ottawa (1935). **b - 1858**

Quantity and value of principal fishes, 1929-1933. Review of the fisheries, 1933. Quantity and value of all fish caught and marketed, 1932 and 1933. Agencies of production, 1931-1933: in primary operations, in fish canning and curing establishments. Review by provinces. Fishing Bounty. Imports and exports. Historical review. Tables for conversion of weight of fish. General tables (in English only): I. Fish caught and marketed, 1933. II. Agencies of production, 1933. Capital equipment, employees, etc. III. Classification of vessels and boats; imports and exports of fish and fishery products; export of dried cod; the salmon pack of British Columbia; fishing bounties; the lobster pack of Canada; fisheries production in certain areas; steam trawler landings on the Atlantic Coast.

**Fisheries and Marine Biological Survey. Union of South Africa.** - Statistics of Investigational Catches Procured by the R. S. « Africana ». – Tabl., Rep., Fish. & Mar. Biol. Surv., Rep. No. 13 48-110. Pretoria, Un. South Africa (193 ). **b - 1859**

Crawfish Survey. Trammel-net investigations. Snoek investigations. Trawling investigations. Line-fishing investigations.

**Fishery Board for Scotland** - Sea Fisheries. Statistical Tables, 1934. – 31 tabl., H. M. Stat. Off., Fish. Scotl. 4-63. Edinburgh (1935). **b - 1860**

Means of capture. Maximum activity in herring fishing. Personnel. Fish landed. Means of capture and fish landed. Treatment of catch. Cured fish branded. Fish exported. Summary tables, 1913 and 1926–34.

**Ministère de la Marine Marchande** - Statistique des pêches maritimes. Année 1933. – nombr. tabl., 173 pp. Impr. Nat. Paris (1935). **b - 1861**

I. Renseignements généraux: Rapport au Ministre de la Marine marchande. Tableaux annexes: graphiques de la pêche à la morue, du hareng, de la sardine, de l'ostréiculture, de la pêche du maquereau, du thon, du homard et de la langouste, du poisson frais. Tableaux comparatifs des résultats de la pêche et de l'ostréiculture pour les années 1927 à 1932. II. Armement. III. Personnel. IV. Production: 1° production de grande pêche; 2° production générale de la pêche en bateau; 3° production générale de la pêche à pied et indication du nombre des pêcheurs y prenant part; 4° ostréiculture, mytiliculture et autres coquillages, réservoirs à poissons et à crustacés. V. Industries connexes.

**Ministry of Agriculture and Fisheries. Fisheries Department** - Sea Fisheries Statistical Tables, 1934. – 28 tabl., 49 pp. H. M. Stat. Off. London (1935). **b - 1862**

Fish landed - year 1934 only as well as 1913 and 1925-1934. Fishermen and fishing vessels. Imports and exports (United Kingdom). Fishing regions.

**Office des Pêches Maritimes** - Statistique des régions de pêche. Année 1933. – 2 cartes, tabl., Rev. Trav. Off. Pêch. Marit., VII, 3, 355-363. Paris (1934). **b - 1863**

Statistiques recueillies et élaborées en exécution des Conventions Internationales, considérant la distribution des lieux de pêche et les résultats de la pêche de 25 espèces de poisson. Pour les années précédentes: v. Nos. 43, 46, 51, 52 des « Notes et Rapports » et les fascicules 1 et 3 des Tomes I, II, III, IV, V, VI et VII de la « Revue des Travaux » de l'Office des Pêches Maritimes.

**Office des Pêches Maritimes** - Statistique des Régions de pêche. Année 1934. – Rev. Trav. Off. Pêches Marit., VIII, 1, 125-134; 3, 338-345. Paris (1935). **b - 1864**

Tableaux avec la désignation des produits pêchés et la quantité par région. Planches montrant la distribution des lieux de pêche selon la Convention Internationale. Statistique des produits de la pêche; nomenclature adoptée.

**Roinn Talmhaiochta. Brainse Iascaigh** - Statistical Tables of the Sea and Inland Fisheries, together with Abstract of Current By-Laws, Orders, etc. for the Years 1931, 1932 and 1933. – 15 tables, 2 figs., 62 pp., Publ. n° 1751, Stat. Off. Dublin (1935). **b - 1865**

These tables contain the statements which appeared as appendices in the previous reports on the Irish fisheries; the report dealing with the Irish fisheries in 1934 has been published separately, those for the previous three years having been omitted.

**Roinn Talmhaiochta. Brainse Iascaigh** - Statistics of Salmon, Sea Trout and Eels captured during the Years 1927, 1929, 1931 and 1933. – 9 tabl., 16 pp., Publ. nº 1838, Stat. Off. Dublin (1935). **b - 1866**

Result of the collection ordered by the Minister for Fisheries of Ireland of certain information relative to the capture or landings of salmon, sea trout and eels.

**Station Océanographique de Salammbô** - Tableaux Statistiques des pêches maritimes en Tunisie. Année 1933. – 9 tabl., Stat. Océanogr. Salammbô, Bull. 33, 4-25. Tunis (1934). **b - 1867**

Liste des espèces pêchées sur les côtes de la Tunisie. Statistiques depuis l'année 1931 et renseignements divers.

**United States Bureau of Fisheries** - Fisheries of the World. – 1 table. Fish. Gaz., Ann. Rev. Numb., 48. New York (1935). **b - 1868**

Statistical statements for 76 countries of the world containing data on fishermen engaged, fishing craft, quantity and value of catch in the fisheries of those countries with reference mostly to the years 1930, 1931 and 1932.

**Lb.** - Internationale Fischereistatistik für 1932. – 2 Tab., Dtsch. Fisch.-Rundschau, 7, 152. Bremerhaven (1935). **b - 1869**

Mitteilungen aus dem Institute für Seefischerei Wesermünde. Statistische Angaben, dem « Bulletin statistique » für 1932 entnommen.

**Sch.** - Die Seefischerei Nordeuropas im Jahre 1932. – 4 Tab., Fischmarkt, III, 2, 46-47. Cuxhaven (1935). **b - 1870**

Einige Angaben, welche der von Prof. D'Arcy W. Thompson bearbeiteten und durch die internationale Meeresforschung jährlich herausgegebenen Seefischereistatistik der nordwesteuropäischen Länder entnommen worden sind.

**An.** - Die Erträge der deutschen Seefischerei im August 1935. – 1 Tab., Dtsch. Fisch.-Rundschau, 19, 437. Bremerhaven (1935). **b - 1871**

Statistische Angaben, mit besonderer Berücksichtigung der Fischerei in Island und in der Nordsee.

**An.** - Statistics of the Fisheries of the United States and Alaska, 1933 and 1934. – 10 tabl., Fish. Gaz., Ann. Rev. Numb., 70, 72-74, 76, 78, 80, 84, 86 & 88. New York (1935). **b - 1872**

Statistics of the operating units-fishermen, vessels, boats and apparatuses, by Section, by States, imports of fishery products, 1934, catch, by Sections, 1934, production of fresh and frozen packed fish, 1934, fishery products frozen in various years, 1920 to 1934, fishery products frozen, by species and months, 1934.

# FRUCTUS PISCATIONIS

## Species edules et commerciales: piscatio et industria.

### *Selachii.*

**Essipov V.** - La chasse norvégienne aux animaux marins et aux requins dans le détroit Danois. (En russe). – Za Rybn. Ind. Sev., 10, 44. Leningrad (1934). **b - 1873**

Données statistiques pour les années 1924–1931.

**Gibelli G.** - A industrialização do cação e possibilidades de seu desenvolvimento no Brasil. – 1 lam., 29 pp., Escolas Prof. Salesianas. Niteroi (1935). **b - 1874**

A industrialização do cação; seu desenvolvimento no Brasil. Os sistemas de pesca. A potencialidade de captura. Seu aproveitamento. A comestibilidade da carne de cação. As medadeiras, como alimento dos filhos do celeste imperio. O pancreas de cação na farmacopéa. Os sub-produtos: a farinha, o adubo, o oleo medicinal e industrial do figado, a gelatina e a ictiocola. Providencias.

**Peters N.** - Angelfischerei auf den Eis-oder Grönlandhai im Nordmeer. – Fischmarkt, III, 2, 48-50. Cuxhaven (1935). **b - 1875**

Beschreibung einer sehr interessanten aber wenig bekannten Fischerei, die Isländer, Finnen und Norweger seit lange auf den mächtigen Eis- oder Grönlandshai, *Somniosus microcephalus*, betreiben. Verwertung der Fänge; Geräte und Ausführung des Fanges.

**Souvorov E. K.** - Sur le problème de la pêche des requins et des squales. (En russe). – 1 tabl., Rybn. Choz. Daljn. Vost (Econ. Pêche Extr.-Orient), 1/2, 102-106. Moskva-Khabarovsk (1934). **b - 1876**

Après avoir mis en évidence que dans les eaux de l'Extrême-Orient russe la chasse aux Squales et aux Requins ne se fait qu'accidentellement, l'A. indique l'importance de ces espèces de poisson pour l'alimentation et diverses industries, dont en premier lieu celle du cuir. Il considère nécessaire de prendre toutes les mesures aptes à faciliter le développement de cette pêche.

**S-e.** - Mehr Beachtung dem Heringshai! – Dtsch. Fischwirt., II, 12, 197-198. Berlin (1935). **b - 1877**

Entwicklung des Konsums des Heringshais; seine Einfuhr in Deutschland aus anderen Ländern; Gründung in Norwegen einer besonderen für den Heringshaifang ausgerüsteten Fischereiflotte; Beschreibung der Fanggeräte; die leichte Verderblichkeit des Fleisches von Heringshai; Aussicht auf den möglichen Erfolg der Hai- und Thunfischfischerei und den Verbrauch dieser Fische in Deutschland.

### *Pleuronectidae.*

**Altnöder K.** - Die Ursachen der schlechten Schollenfischerei in der Ostsee. – 3 Tab., Dtsch. Fischwirt., II, 43, 809-810. Berlin (1935). **b - 1878**

Besprechung der Alterszusammensetzung von Marktfängen während 1929-1933, Mahnung die heranwachsenden Jungschollen zu schonen, Aussicht zur Besserung.

**Bedford R. H.** - The Care of Fresh Halibut Aboard Ship. – Biol. Bd. Canada, Bull. XLIX, 1-8. Ottawa (1935). **b - 1879**

This bulletin has the purpose of outlining a practical method for the care of fresh halibut aboard ship, so that when the catch is landed it may be as uniform in quality as storage in ice permits. The method has been devised as the result of experiments carried out on four Canadian fishing vessels during 1934 and in consultation with representatives of the skippers and crews of the halibut fleet of Prince Rupert.

**Essipov V.** - La pêche des Hippoglossoïdés sur les côtes du Groenland. (En russe). – Za Rybn. Ind. Sev., 12, 44. Leningrad (1934). **b - 1880**

**Hikita T.** - Flatfishes Found in Northern Japan. – 29 pls., Bull. School Fish., Imp. Univ., IV, 187-296. Hokkaido (1934). **b - 1881**

Detailed description of the external and internal characteristics of 30 species belonging to 22 genera from Hokkaido, Sakhalin, and the Kurile Islands. The species *Pseudoplatichthys oshorensis* n. g. n. sp. is new to science.

**Kändler R.** - Jungschollenschwärme an der Pommerschen Küste. – 1 Karte, 4 Tab., Fischmarkt, III, 1, 4-9. Cuxhaven (1935). **b - 1882**

Bedeutende Rolle der Scholle in der deutschen Ostseefischerei. Ursachen des Rückgangs des Schollenbestandes. Einwanderungstheorie betreffend die Urkunft der ostseeischen Schollen; Entdeckung im Bornholm-Becken von einem ausgesprochenen Laichgebiet der Scholle. Einige Aufschlüsse über den Aufenthalt der O-Schollengruppe an der pommerschen Küste; Befunde über die Nahrung der kleinen Schollen; Zahlenverhältnis zwischen Scholle und Flunder in der untersuchten Gegend. Notwendigkeit von Schutzmassnahmen.

**Kändler R.** - German Baltic Plaice Fisheries. – Fish. News, 23: Aberdeen (1935). **b - 1883**

**Larcken L. C.** - Pacific Coast Halibut Fisheries Show Marked Progress. – Fish. Gaz., LII, 9, 9. New York (1935). **b - 1884**

Some information of the halibut fisheries season opened on March, lst, 1935, which shows that conservation and marketing restrictions have been beneficial for the progress of these fisheries.

**Lundbeck J.** - Die Schollenfänge der deutschen Hochseekutter in der Nordsee im Jahre 1932. – 2 Abb., 4 Tab., Ber. Dtsch. Wiss. Komm. Meeresf. N. F., VII, 1, 38-48. Leipzig (1934). **b - 1885**

Die Anlandungen im Vergleich mit denen von 1927-1931, der Gesamtfang und mittlere Schollenerträge je Fangtag, Grössen- und Alterszusammensetzung in den einzelnen Monaten und Untergebieten sowie der Gesamtlandungen. Die ungünstigen Resultate und ihre Ursachen. Die Aussichten für 1933.

**Lundbeck J.** - Ueberfischung des Heilbutt im Nordpazifik. – Dtsch. Fisch.-Rundschau, 4, 79-80. Bremerhaven (1935). **b - 1886**

Mitteilungen aus dem Institut für Seefischerei Wesermünde. Bedeutung der Heilbuttfischerei an den atlantischen Küsten Nordamerikas. Ueberfischung des Heilbutts. Die von Kanada und der Vereinigten Staaten seit 1924 getroffenen Massnahmen zur Verhinderung des völligen Erschöpfens des Heilbuttfanges. Betrachtungen über den Einfluss der Massnahmen.

**Lundbeck J.** - Die Schollenerträge der deutschen Hochseekutter in Jahre 1934. – 2 Abb., 4 Tab., Fischmarkt, III, 4, 88-92. Cuxhaven (1935). **b - 1887**

Statistische Angaben über die jährliche Ausbeute an Schollen der deutschen Kutterfischerei in der Nordsee; die Prozent-Anteile der Altersgruppe, in den Schollenanlandungen der Hochseekutter aus der Nordsee, die Zusammensetzung der durchschnittlichen Tagesfänge und die Prozent-Anteile der Altersgruppen in den unausgelesenen Fängen (d. h. untermässige und Marktschollen zusammen).

**Molander A. R.** - Om rödspottsbeståndets yngsta årsklasser i södra Östersjön. – Ny Svensk Fiskeritidskr., 23, 265-268. Göteborg (1934). **b - 1888**

**Schnakenbeck W.** - Die biologischen Grundlagen für die Fischerei in der Niederelbe. 5. Der Butt (*Pleuronectes flesus*). – 1 Abb., Fischmarkt, III, 7, 174-176. Cuxhaven (1935). **b - 1889**

Ergebnisse von wissenschaftlichen Untersuchungen über die Ab- und Zuwanderung des Butts in der Niederelbe und der Hafenzone und ihren Einfluss auf die Fischerei. Eigentümlichkeiten der jahreszeitlichen Schwankungen der Erträge. (Vgl.: «Fischmarkt». 9, 1933; 2, 6, 10, 1934).

**Thursby-Pelham D. E.** - Can Flat Fish live after the Trawl has caught them? – Fish. News 8, Aberdeen (1935). **b - 1890**

**Fiskeridirektøren** - Beretninger om torskefisket (utenom Lofoten) og silde-, makrell-, bank- og kveitefisket samt selfangsten i 1933. – Tabl., Årsber. v. Norg. Fisk. 1933, 5, 1-144. Bergen (1935). **b - 1891**

Tableaux statistiques sur le rendement de la pêche des Pleuronectides valeur en cour. norv., bateaux, personnel, administration etc., pour les régions différentes de la Norvège, Islande et Groenland.

**K.** - Verpflanzung von Nordseeschollen in die Ostsee. – 3 Abb., Fischmarkt, III, 6, 151-157. Cuxhaven (1935). **b - 1892**

Kurzer Bericht über auch im Jahre 1935 von dem Reichsernährungsministerium verfolgte Versuche in grossem Massstabe Jungschollen aus der Nordsee in die Ostsee zu versetzen. Die beigegebenen Bilder, welche im April 1934 aufgenommen worden sind, geben einen Einblick in die Vorgänge bei den Verpflanzungen. Einige Schlussfolgerungen in Bezug auf den Erfolg der Verpflanzungsversuche.

**An.** - Good Halibut Season Expected. – Canad. Fisherm., XXII, 9, 21. Gardenvale, Que. (1935). **b - 1893**

Statistical statements concerning the favorable progress of the British Columbia halibut Season. The figures published have been compiled with the assistance of the International Fisheries Commission.

## *Gadidae.*

**Dementjev T. & Tanasijtchouk V.** - Sur la question des races de morue dans la Mer de Barents (En ordre de discussion). (En russe). – 2 phot., 1 graph., 2 tabl., Za Rybn. Ind. Sev., 5, 40-43. Leningrad (1935). **b - 1894**

**Essipov V. K.** (trad. du russe par le Capit. Cochin). - Contribution aux caractéristiques techniques et biologiques de la pêche à la morue et

à l'églefin sur la côte Mourmane orientale. – 3 fig., 2 cartes, 26 tabl., Rev. Trav. Off., Pêches Marit., VII, 3, 245-274. Paris (1934). **b - 1895**

Traduction d'un mémoire publié par le Gouvernement soviétique et qui est de nature à intéresser les armateurs dont les navires fréquentent la côte Mourmane. L'A. en effet, communique les résultats des observations exécutées au cours de l'année 1928 à la station scientifique et technique de l'Institut d'Etudes des Mers Septentrionales à Portchnik et relatives à la pêche à la palanque de la morue et de l'églefin sur la côte Mourmane orientale. On a soumis à l'examen le poisson procuré à la station par les pêcheurs de Zakhrebetnaja et de Chelpino. Chaque spécimen de morue ou d'églefin était mesuré au ruban centimétrique, puis pesé à la balance décimale et ouvert pour définir le sexe et pour examiner l'état des produits sexuels. En outre, on a examiné chaque fois séparément le foie de chaque spécimen, en recueillant des matériaux sur quelques uns des spécimens pour la détermination de leur âge (écailles, otolithes, vertèbres). Le total des spécimens étudiés a été pour la morue 502, et pour l'églefin 175.

**Gismondi E.** - Fasti e nefasti della pesca e del commercio del merluzzo. – Italia Pescher., 15/16, 9-11. Roma (1934). **b - 1896**

Metodi di ricerche. Le uova di merluzzo. Longevità. Influenza del clima. Esportazione. Il merluzzo salato. Riferimenti storici interessanti. Il merluzzo in Italia. Consorzio di distribuzione.

**Gismondi E.** - Pesca e commercio dei merluzzi. – Realtà, XV, 4, 402-413. Milano (1934). **b - 1897**

Dopo alcuni cenni sulla biologia si dànno alcune notizie di carattere generale sulla pesca e sul commercio dei gadidi. I merluzzi si possono dividere in tre grandi famiglie: la prima, quella che compare lungo le coste della Norvegia, la seconda, quella di Terranuova, ed ultima quella dell'Islanda. Ciascun gruppo ha carattereristiche proprie, sia in riguardo al colore della pelle, sia alla struttura del corpo, per cui si può stabilire l'esatta provenienza del prodotto ricevuto.

**Hickling C. F.** - The Hake and the Hake Fishery: being the Buckland Lectures for 1934. – 142 pp., Edward Arnold and Co. London (1935). **b - 1898**

**Rollefsen G.** - The Spawning Zone in Cod Otoliths and Prognosis of Stock. – 5 figs., 1 tab., 10 pp., Fiskerid. Skr. Ser. Havunders. (Rep. Norw. Fish. and Mar., Invest., IV, 11). Bergen (1935). **b - 1899**

This work is the result of studies on otolith-material collected during the Norwegian Cod fisheries during1932-1935 and preliminary dealt with in two papers (Fiskerid. Skr, IV, 3, 1933 & Rapp. Pr.-Verb., LXXXVIII, 1934).

Assumption of the peculiar outer otolith-zones as spawning-zones and methods of computation: age and length distributions observed and calculated.

**Souvorov E. K. & Stschetinina L. A.** - La pêche à la morue en Extrême-Orient. (En russe). – 1 graph., 6 tabl., Rybn. Choz. Daljn. Vost., XIII, 1, 57-60. Khabarovsk (1935). **b - 1900**

Données statistiques sur le montant des captures, sur les caractéristiques biologiques et morphologiques de la morue de l'Extrême-Orient, sur les groupes d'âge et de sexe dans les captures; quelques considérations sur les résultats peu satisfaisants de la pêche de la morue au chalut.

**Sund O.** - Biologiske og oceanografiske undersøkelser: Torskebestanden i 1935 bedömt efter målinger av fisken og statistikk over utbytte og deltagelse. – 3 fig., Lofotfisket 1935, Årsber. v. Norg. Fisk. 1935, 2, 84-88. Bergen (1935). **b - 1901**

**Sund O.** - Biologiske og oceanografiske undersøkelser: Om iakttagelser ved hjelp av ekkolodd under skreifiske i Lofoten 1935. – 2 fig., Lofotfisket 1935, Årsber. v. Norg. Fisk. 1935, 2, 89-91. Bergen (1935). **b - 1902**

Il vantaggio dello scandaglio a eco per determinare la presenza o la mancanza dei pesci. La pesca a Høla; cause dei risultati poco soddisfacenti della pesca dei gadidi.

**Svetovidov A. N.** - Second Species of the Genus *Boreogadus* (*Boreogadus agilis* Reinhardt). (In Russ., Engl. Summ.). – 2 figs., tables. Rep. Acad. Sc. USSR, I, 6, 427-432. Leningrad (1935). **b - 1903**

**Tåning, Vedel Å.** - Report from Denmark. – Rapp. & Pr.-Verb., Cons. Expl. Mer., XCIII, Rapp. Atlantique, 1933, 36. Copenhague (1935). **b - 1904**

Brief summary of racial investigations on the haddock, *Gadus aeglefinus*, sent by Dr. Thompson, New Foundland.

**Thompson H.** - Haddock Investigations. – 3 tabl., Rep. Newfoundl. Fish. Research Labor., II, 3, 42-45. Newfoundland (1935). **b - 1905**

After some considerations concerning the abundance of haddock in the southern portion of the Grand Banks and the fluctuations of the stock of this fish in Newfoundland waters, author communicates the results of research on the amount of haddock in the surveyed areas during the years 1931–1934. The relationship of catch of haddock and water temperature is also discussed.

**An.** - Untersuchungen über den Kabeljau an der russischen Murmanküste. – 3 Tab., Fischmarkt, III, 6, 160-161. Cuxhaven (1935). **b - 1906**

Zusammenfassende Wiedergabe von den Ergebnissen der von russischer Seite angestellten Untersuchungen über Kabeljaufänge an der Murmanküste, die, obgleich sie sich ausschliesslich auf Küstengewässer und Langleinenfischerei beziehen, doch auch ein allgemeines Interesse haben. (S.: V. K. Essipov: « Contribution aux caractéristiques techniques et biologiques de la pêche à la morue et à l'aiglefin sur la côte Mourman orientale », Rev. Trav., VII, 3,1934).

**An.** - Distribution of the Age-Classes of Cod in 1934. –8 maps, 1 table. Rep. Newfoundl. Fish. Research Labor., II, 3, 31-35. Newfoundland (1935). **b - 1907**

Account of the results of investigations on hand of scale samples made on 2.609 cod from Bay Bulls, 2.160 cod from southern Grand Bank, 878 cod from Fortun, and on lesser numbers in various other regions, on the distribution of the age-classes of cod in Newfoundland waters during 1934. The outlook for 1935.

**An.** - The Distribution of Cod Fry. 1931-1934. – Rep. Newfoundl. Fish. Research Labor., II, 3, 36. Newfoundland (1935). **b - 1908**

Deductions drawn from the results of the hauls taken during both spring and fall cruises (with the exception of 1931, where there was no spring cruise), half an hour in duration in the northern area and the Grand Banks region of Newfoundland.

## *Clupeidae.*

**Averintzev S.** - Sur les travaux de l'expédition du Nord pour l'étude des Harengs. (En russe). – 7 fig., Za Rybn. Ind. Sev., 6, 16-20. Leningrad (1933). **b - 1909**

Description des travaux de l'expédition en 1933 sur le Mourman et dans la Mer de Barents.

**Averintzev S.** - Les harengs du Nord de l'U. R. S. S., les principales caractéristiques de leur biologie et de leur pêche. (En russe). – Priroda, 10, 64-69. Leningrad (1934). **b - 1910**

**Averintzev S.** - La pêche du Hareng dans la Mer de Barentz. (En russe). – 1 fig., Za Rybn. Ind. Sev., 4/5, 24-30. Leningrad (1934). **b - 1911**

**Bähr O.** - Die Heringsfischerei bei Island 1935. – 1 Tab., Dtsch. Fisch.-Rundschau, 26, 605-606. Bremerhaven (1935). **b - 1912**

Aus den Mitteilungen des Instituts für Seefischerei Wesermünde. Kurzer Bericht über den Verlauf der von fünf führenden Hamburg-Altonaer Heringsimportfirmen ausgerüsteten « Ersten Deutschen Island-Matjes Expedition » für die Heringsfischerei bei Island. In der Tabelle sind die Angaben der Isländischen Fischereigesellschaft über die Ausbeute der Heringsfischerei bis zum 5. Oktober 1935 enthalten. Bericht über die bezahlten Preise für frische und Salzheringe und über das Ergebnis der Heringsexpeditionen anderer Länder.

**Belinskij J. I.** - Le détachement du poisson « ivasj » (*Sardinella melanosticta*), du filet et sa rationalisation plus simple. (En russe). – Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 57-60. Moskva-Khabarovsk (1934). **b - 1913**

Résultats du chronométrage du travail des femmes chargées de détacher le poisson « ivasj » (*S. melanosticta*) après sa capture, des mailles du filet. Description et fonctionnement d'un dispositif spécial qui permet de rationaliser ce travail. Efficacité du nouvel dispositif.

**Berg W.** - Ein Vorschlag zur Gesundung der Sprottenverwertung. Angebot und Preisbildung müssen geordnet sein. – Dtsch. Fischwirt., II, 43, 805-808. Berlin (1935). **b - 1914**

**Clark F. N.** - A Summary of the Life History of the California Sardine and its Influence on the Fishery. – Calif. Fish. & Game, XXI, 1-9. Sacramento (1935). **b - 1915**

**Clark G. H.** - The Effect of Gear and Locality on the Sizes of the Sardines Taken in the Los Angeles Harbor Region. – 27 figs., 14 tabl., Calif. State Fish. Labor., Contr. 113-114; Div. Fish & Game, Bull. 43, 31-59. Sacramento, Calif. (1935). **b - 1916**

Results of a study of the effects of the change of fishing apparatus, the extension of fishing grounds in 1925-1926, and the change in gear in 1927-1928, on the sampling system and the investigation of the California sardine.

**Daniel R. J.** - Presidential Address on Herrings. (Abstract). – Proc. & Trans. Liverpool Biol. Soc., XLVIII, 4-11. Liverpool (1935). **b - 1917**

Shoaling of Herrings on the Continental Shelf. Historical remarks on the herring fishery in the Baltic. The present position of the herring fishery. Research work: races, morphological characters, year-classes etc.

**Denisov I. A.** - Dispositif pour décrocher le poisson « ivasj » (*Sardinella melanosticta*) des filets. (En russe). – 3 fig., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 54-57. Moskva-Khabarovsk (1934). **b - 1918**

Quelques considérations concernant la nécessité de la mécanisation du travail des femmes chargées de détacher la *S. melanosticta* des mailles du filet. Brève description d'un dispositif spécial qui peut assurer en partie cette mécanisation.

**Erdmann W.** - Der deutsche Trawlheringsfang 1934. – 6 Abb., 6 Tab., Fischmarkt, III, 3, 60-74. Cuxhaven (1935). **b - 1919**

Statistische Angaben über: 1. die endgültigen Zahlen für 1934 des deutschen Trawlheringsfanges und zum Vergleich diejenigen der Jahre 1930 bis 1933, 2. den deutschen Trawlheringsfang 1933 und 1934 (in 1000 Pfund nach Monaten) 3. die Anlandungen am Fischmarkt Altona-Hamburg, 1933-1934. 4. die Verteilung der Heringsfangreisen 1934 auf die Fangplätze der Nordsee, 5. die Mengen der seegesalzenen Trawlheringe 1933 und 1934, 5. die Durchschnittspreise und Gesamtwerte für Trawlheringe 1933-34. Es sind ausserdem graphische Angaben über die Zusammensetzung der Heringsschwärme auf dem Fladengrund der Gat und der Doggerbank nach Alter und Länge im Jahre 1934, sowie dieselben Daten zum Vergleich für 1932, und Angaben über die Zusammensetzung der Heringsschwärme nach Reife im Jahre 1934 und in den obenerwähnten Gegenden wiedergegeben.

**Ford E.** - The Advance of Herring Research. – Nature, CXXXVI, 3449, 896-897. London (1935). **b - 1920**

Account of a symposium held at the meeting of the British Association at Norwich, September 9, 1935. Papers concerning current investigations with a view to render direct assistance to the herring industry were presented by E. Ford, W. C. Hodgson, A. C. Hardy and R. S. Wimpenny.

**Gajl G. I.** - Le phytoplancton-nourriture de l'« ivasj » (*Sardinella melanosticta*). (En russe). – 2 fig., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 52-54. Moskva-Khabarovsk (1934). **b - 1921**

L'interdépendance des voies de migrations des poissons et de la distribution du phytoplancton. Résultats de l'analyse chimique de la substance sèche des diatomées et des péridinées qui sont les deux composants principaux du phytoplancton. Résultats des recherches sur la distribution du phytoplancton dans les mers de l'Extrême-Orient russe et la présence de *S. melanosticta* dans leurs eaux.

**Goubenko J. T.** - Les causes de la nonréussite et les voies de réorganisation de la pêche de *Sardinella melanosticta* avec des seines à poche dans la région Primorskaja. (En russe). – 2 fig., 3 tabl., Rybn. Choz. Daljn. Vost., XIII, 1, 41-51. Khabarovsk (1935). **b - 1922**

Premisses biologiques de la pêche de *S. melanosticta* avec des seines à poche dans la région Primorskaja. Organisation du service côtier pour la flotte des chalutiers. Système des salaires et le rendement du travail. Construction de la seine à poche. Conservation et manutention des filets. Procédés de reconnaissance et méthodes de pêche. Le mécanisme de la pêche. Le chalutier. Nécessité d'introduire les filets danois dans la flottille de pêche de la région Primorskaja.

**Goubenko J. T.** - Sur la différenciation des mailles des filets pour la pêche de *Sardinella melanosticta*. (En russe). – 1 tabl., Rybn. Choz. Daljn. Vost., XIII, 1, 53-56. Khabarovsk (1935). **b - 1923**

Quelques considérations concernant l'ouverture des mailles des filets employés dans la pêche de *S. melanosticta* dans les mers de l'Extrême-Orient complétées par des indications sur les dimensions optimum des mailles selon les différentes périodes de pêche.

**Hilker C.** - Ein Fisch mit Tradition und Geschichte. – Dtsch. Fisch.-Rundschau, 15, 338-339. Bremerhaven (1935). **b - 1924**

Die grosse wirtschaftliche Bedeutung des Herings, seine Rolle als Mittler kultureller Beziehungen zwischen den Völkern und die Entwicklung der Heringsfischerei vom 10. bis zum 16. Jahrhundert, sowie ihren Aufschwung vom Jahre 1620 bis zu den heutigen Tagen, mit besonderer Berücksichtigung der deutschen Heringsfischerei.

**Hilker C.** - Nordenham in der Heringsfischerei – Dtsch. Fisch.-Rundschau, 16, 361. Bremerhaven (1935). **b - 1925**

Aufgaben und Aufbau der Deutschen Heringsfischerei in Nordenham, deren Ziel ist, die deutsche Salzheringsproduktion ständig weiter zu steigen.

**Hodgson W. C.** - Letters to the Editor. – Journ. Cons. Expl. Mer, X, 1, 99-101. Copenhague (1935). **b - 1926**

Critical remarks to Dr. Lissner's statements concerning the results of the Author's herring investigations (Journ. Cons. Expl. Mer, IX, 3).

**Hurequin L.** - La Pêche et la conserve de la sardine au Japon. – Pêche Marit., Pêche Fluviale et Piscicult., XVII, 357-359. Paris (1934). **b - 1927**

**Ivantchinov V. J.** - La rivière Izoutchja. Biologie et pêche de l'hareng de l'Obj – 149 pp., Rab. Obsko-Tazovsk. Rybn. Choz. Stantz. Toboljsk (1935). **b - 1928**

**Jespersen P.** - Undersøgelser over Aarsagen til Svingningerne i Sildefiskeriets Udbytte. – Dansk Fiskeritid. København (1935). **b - 1929**

**Kaganovskaja S. M.** - La pêche de l'« ivasj » (*Sardinella melanosticta*) dans la région de l'Ile Poutjatine en 1933. (En russe). – 4 graph., 7 tab., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 34-44. Moskva-Khabarovsk (1934). **b - 1930**

Données statistiques sur le montant des captures, sur le rapport entre le rendement effectif et le rendement prévu de la pêche en 1933, sur l'influence de la température de l'eau sur la pêche de *S. melanosticta*, sur la composition des captures (pourcentage des groupes d'âge déterminés, longueur et poids des poissons, leur sexe). Difficultés qui s'opposent à l'étude du rendement de la pêche de *S. melanosticta* dans les eaux de l'Extrême-Orient.

**Kaganovskij A. G.** - Reconnaissances pour la pêche du poisson « ivasj » (*Sardinella melanosticta*) et prévisions pour sa pêche. (En russe). – 2 graph., 3 tabl., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 11-20. Moskva-Khabarovsk (1934). **b - 1931**

Après des considérations générales sur les migrations de *S. melanosticta* dans les mers de l'Extrême-Orient, l'A. donne un aperçu historique du développement de la pêche de ce poisson dans la région considérée avec référence spéciale à la nécessité d'une bonne organisation d'un service de recherches permettant de déterminer la position des bancs de *S. melanosticta*. Pour conclure il communique certains données déduites des observations des années précédentes concernant les prévisions du rendement de la pêche de *S. melanosticta* pendant l'année courante.

**Kournajev E. F.** - Efficacité de l'utilisation de l'« ivasj » (*Sardinella melanosticta*), selon les différentes formes de traitement de ce poisson. (En russe). – 2 tabl., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 44-52. Moskva-Khabarovsk (1934). **b - 1932**

Différents modes d'utilisation de *S. melanosticta* dont la pêche est très développée dans l'Extrême-Orient russe; comparaison entre les différents modes de traitement auxquels on soumet le poisson, au point de vue de l'utilisation de toutes les substances alimentaires contenues dans sa chair.

**Laurinat K.** - Erfahrungen mit der Stempelung der deutschen Salzheringe. – Dtsch. Fischwirt., II, 17, 378. Berlin (1935). **b - 1933**

Einige Ausführungen über die Stempelung der deutschen Salzheringe, die auf Grund der Vorschriften der Wirtschaftlichen Vereinigung der Fischindustrie Deutschlands vom 4. Oktober 1934 eingeführt worden ist.

**Le Gall J.** - La pêche du hareng deviendrait-elle scientifique ? – Pêche Marit., Pêche Fluviale et Piscicult., XVII, 388-390, 445-446, 485-486. Paris (1934). **b - 1934**

**Le Gall J.** - Statistiques biologiques et considérations sur la population harenguière de la Manche Orientale et du Sud de la Mer du Nord. – 5 fig., 16 tabl., Rev. Trav. Off., Pêches Marit., VII, 3, 335-353. Paris (1934). **b - 1935**

Ces « Statistiques Biologiques » continuent la série des « Statistiques et Considérations » qui ont été régulièrement publiées par l'A. depuis 1926. Elles résument les observations faites pendant l'année 1933 sur les pêcheries de harengs de la Manche Orientale et du Sud de la Mer du Nord, avec référence spéciale aux déplacements de la pêcherie harenguière pendant la saison d'hiver 1933–1934. L'A. formule aussi quelques considérations sur la population harenguière en Manche Orientale et à l'entrée sud de la Mer du Nord pendant la saison de pêche 1933–1934, dont le fait dominant a été l'abondance extrême de harengs de 4 ans dans les concentrations, abondance qui a été prévue et signalée dès 1933.

**Le Gall J.** - La pêche de la sardine. – 23 fig., 1 graph. Mém. Off. Pêches Marit., Man Pêches Marit. Franç., Sér. Spéc., 10, 2, 94-117. Paris (1935). **b - 1936**

Chapitre de la II-ème partie du « Manuel des Pêches Maritimes Françaises » traitant de la pêche de la sardine avec référence spéciale à la sardine européenne, à la pêche de la sardine sur les côtes de France, aux lieux et époques de pêche, à l'historique de la pêche de la sardine en France, aux centres d'armement, aux bateaux et leur équipage et annexes, aux appâts, aux engins et à la technique de pêche, aux différents modèles de seines, à l'écoulement des produits de la pêche et à l'utilisation des sous-produits.

**Leppert** - Selbsthilfe Hamburg-Altonaer Heringsimporteure: Deutscher Heringsfang unter Island. – 1 Phot., Dtsch. Fisch.-Rundschau, 15, 337-338. Bremerhaven (1935). **b - 1937**

Bericht über die Einrichtung von führenden Hamburg-Altonaer Importsfirmen der « Ersten Deutschen Island-Matjes-Expedition », deren Ziel ist, die Möglichkeit zu untersuchen aus den isländischen Gewässern durch Fang mit eigenen Fahrzeugen Heringe an den deutschen Markt heranzuführen.

**Lundbeck J.** - Alter und Wachstum unserer Heringe. – Dtsch. Fischwirt., II, 16, 367-370. Berlin (1935). **b - 1938**

Einige Betrachtungen über die Jahresbestimmung bei Fischen; Beschreibung des Verfahrens zur Altersbestimmung bei Fischen mit besonderer Berücksichtigung der Heringe; die grosse Zahl der Heringsrassen, welche eine starke Erschwerung der Erforschung des Herings verursacht; Wachstumunterschiede bei verschiedenen Rassen; die grosse Rolle der Bestandesschwankungen in der Biologie des Herings; der Einfluss auf die Erträge des Reifealters und der Sterblichkeit; die Rolle der Fischerei von Jungheringen.

**Malisius K.** - Auf Heringsfang. – Dtsch. Fisch.-Rundschau, 17, 386-388. Bremerhaven (1935). **b - 1939**

Vf., Heizer auf dem Fischdampfer « Borkum-Riff », schildert die Hochseefischerei aus einer sozusagen „ Arbeitsperspektive ", mit besonderer Berücksichtigung des harten Berufes der auf dem Fischdampfer beschäftigten Seeleute.

**Peace H. L.** - New Menhaden Plant and Trawler Under Construction at Fernandina. – Fish & Oyst. Rep., XVI, 4, 6, Tampa, Fla. (1935). **b - 1940**

Brief account of the last development of Ferdinandina's menhaden trawler industry.

**Phillips J. B.** - The Sizes of Sardines Caught by different Fishing Gear and in different Localities of the Monterey Region. – 16 figs., 6 tabl. Calif. State Fish. Labor., Contr. 113-114; Div. Fish & Game, Fish Bull. 43, 7-30. Sacramento, Calif. (1935). **b - 1941**

Results of an investigation made to determine whether or not the system of sardine sampling as carried on in the past is still adequate since changes have occurred in the fishery. The results are of value to the sardine investigation because of the demonstration of the continual reliability of the sardine sampling in use in California and the furnishing of additional evidence indicating a southward movement of sardines along the California coast during the winter months.

**Roubine S. I.** - Montant des captures de l'« ivasj » (*Sardinella melanosticta*), dans les lieux de pêche du Trust du Poisson de l'Extrême Orient en 1933 (En russe). – 13 tabl., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.–Orient), 1/2, 20-33. Moskva–Khabarovsk (1934). **b - 1942**

Données statistiques sur le produit de pêche de *S. melanosticta* en 1933 avec les filets traînants, les filets fixes et avec les seines. Quelques conclusions concernant la répartition de la région de pêche en plusieurs zones et la nécessité de l'emploi de différents types de filets de pêche dont les qualités et les défauts peuvent ainsi se compenser.

**Schnakenbeck W.** - Die Wissenschaft sucht die Zusammenhänge der Heringsfischerei zu klären. – Dtsch. Fischwirt., II, 44, 825-827. Berlin (1935). **b - 1943**

Vf. bespricht die Verlagerung der Heringsfischerei nach Westen, die Schwankungen in den Fangerträgen und berichtet über einige Ergebnisse der Forschungen über die Wanderungen des Herings, mit besonderer Berücksichtigung derjenigen des Nordsee–Herings.

**Schnakenbeck W.** - Einflüsse auf die Erträge der Heringsfischerei. – 1 Diagr., Fischmarkt, III, 4, 93-101. Cuxhaven (1935). **b - 1944**

Zusammenfassende Besprechung der verschiedenen Ursachen der Schwankungen in den Erträgen der Heringsfischerei mit besonderer Berücksichtigung der Ergebnisse der Arbeit von Savage und Hardy « Phytoplankton and the Herring » (S.: Fish. Invest., Ser. II, XIV, 2, 1934).

**Schroeder H.** - Einer, der dabei war, schildert die deutsche Island-Heringsfang-Expedition. – Dtsch. Fisch.-Rundschau, 22, 503-504. Bremerhaven (1935). **b - 1945**

Schilderung des bekannten Misserfolges der « Edimex » Expedition.

**Senst** - Mitten in der « Trawlheringssaison. Fang und Verwertung der Schleppnetzheringe. – Tab., Dtsch. Fischwirt., II, 31, 609-611. Berlin (1935). **b - 1946**

Vorbereitung der Heringsnetze, welche von gewöhnlichen Schleppnetzen stark abweichen; die Fanggründe in der Nordsee und ihre Ergiebigkeit; die Schwankungen der Heringsfischereiergebnisse; die Behandlung der Heringe nach dem Fange.

**Steffen W.** - Die grosse Heringsfischerei. – Jahresber. Dtsch. Fisch. 1933, 193-195. Berlin (1934).

(—) Dtsch. Fischwirt., II, 4, 57-58. Berlin (1935). **b - 1947**

Geschichte und jetzige Bedeutung der grossen Heringsfischerei; ihre Entwicklung in verschiedenen Ländern; Auswirkung des Krieges; Vorbedingungen eines weiteren Aufschwunges dieser Fischindustrie.

**Steffen W.** - Zur Lage der Loggerheringsfischerei. – Tab., Dtsch. Fischwirt., II, 32, 626-628. Berlin (1935). **b - 1948**

Beginn der Saison 1935, die Produktions–und Versorgungslage. Sicherung der Qualität.

**Storrow B. & Cowan D.** - Herring Investigations. – Tables. Dove Mar. Labor., Rep. Year end. July 31st, 1935, 3 Ser., 3, 11-26. Newcastle o. Tyne (1935). **b - 1949**

Results of the examination of samples from the Yarmouth fishery, the landings at Wick and Stornway from the winter shoals of herring about the north of Scotland and from the spring shoals off the north–west of Ireland as landed at Buncrana. Data, reported in tables on the amount of the catch, size, winter rings, and maturity of the fish collected.

**Tesch J. J.** - Considerations on the Herring Fishery in the Flemish Bight during Autumn 1934 with Forecast of the next Fishery of 1935. – 3 diagrs., Rapp. Pr.-Verb. Cons. Expl. Mer., XCIV, 3ème partie. Append. (1934-1935), 72-74. Copenhague (1935). **b - 1950**

Dates and diagrams on the percentual age–distribution according to different investigators for 1934–1935. Discussion as to the variations of the dates. Calculations on the percentual age–distribution of the expected stock in autumn 1935, factors concerning the yield of the fishery.

**Tester A. L.** - The Herring-Fishery of British Columbia. Past and Present. – 18 figs., 2 tabl., Bull. Biol. Bd. Canada, XLVII, 1-37. Ottawa (1935).

(—) Rep. Comm. Fish. Brit. Columb., 1934, Append., 76-102. Victoria, B. C. (1935). **b - 1951**

Life–history of the herring (*Clupea pallasii*), development of the various methods of fishing, development of each phase of the industry with reference to the preparation of the products; fluctuations in quantity and value of the marketed products as well as in the availability and size of herring. The present condition of the fishery and its future possibilities.

**Tricoche G. N.** - The Outlook for the Herring Fishery of Newfoundland. – 1 fig., 1 tabl. Fish. Gaz., LII, 3, 11-12. New York (1935). **b - 1952**

Author communicates some statistical data showing the decline of the herring fishery in Newfoundland and discusses the complex causes of the present condition of affairs on hand of data contained in the Report of the Royal Newfoundland Commission of 1933.

**Wendt R.** - Die deutsche Heringsfischerei mit Treibnetzen im Jahre 1934. – 2 Tab., Fischmarkt, III, 2, 41-43. Cuxhaven (1935). **b - 1953**

Statistische Angaben über die deutsche Heringsflotte; Zahl und Ausrüstung einzelner Schiffe; Verlauf der Fangsaison 1934; Fangbestand; deutsche Erzeugung und Einfuhr ausländischer Salzheringe; Durchschnittsfänge der deutschen Heringslogger im Jahre 1934.

**Wood H.** - Scottish Herring Investigations in the North-Western North Sea, 1934. – 6 tabl., 1 fig., Rapp. Pr.-Verb. Cons. Expl. Mer., XCIV, 3ème partie. Append. (1934-1935), 65-71. Copenhague (1935). **b - 1954**

Continuation of the investigations of 1933 (Rapp. Pr.-Verb. Cons. Expl. Mer, LXXXIX, 3). The fishing area; changes in the composition of the shoals average and percentage age composition from different areas, vertebrae, keeled scales, average catch per landing; race analysis of herring according to scale rings, Fladen Ground. The Herring populations of Fladen Ground and the Scottish East coast.

**Sch.** - Untersuchungen über den Heringsfang im Barentsmeer. – Fischmarkt, III, 6, 159-160. Cuxhaven (1935). **b - 1955**

Kurzer Bericht über die von russischer Seite im Barentsmeer ausgeführten Untersuchungen um festzustellen, ob es möglich ist, dort Heringe mit Treibnetzen zu fangen. (S.: S. Awerintzew: « Einige Ergebnisse von Beobachtungen an *Clupea harengus* des Barentsmeeres », Journ. Cons., X, 1, 1935).

**An.** - Le mouvement océanographique et des industries de la pêche en France et à l'étranger. – Bull. Soc. Amis Inst. Océanogr., XIV, 51, 3-4. Le Havre (1935). **b - 1956**

Création d'un Comité du Hareng. Publication par l'Office Scientifique et Technique des Pêches d'un « Manuel des Pêches Maritimes Françaises ». Les recherches scientifiques à l'étranger: résultats des recherches scientifiques sur le hareng en Allemagne.

**An.** - Forecast for the 1935-1936 Sardine Season. – Calif. Fish. & Game, XXI, 3, 258-259. Sacramento, Calif. (1935). **b - 1957**

Fall fishery for San Francisco, Monterey and San Pedro, winter fishery for all localities. Less abundance than in 1934–1935.

**An.** - Sardine Herring Fishery in Full Swing. – Canad. Fisherm., XXII, 5, 20. Gardenvale, Que (1935). **b - 1958**

New development of the herring sardine fishery of Charlotte County, N. B. where fishermen enjoy a sharp demand for their products at fairly satisfactory prices.

**An.** - Merkwürdige Zusammenhänge in der Heringsfischerei. – Dtsch. Fisch.-Rundschau, 15, 333-336. Bremerhaven (1935). **b - 1959**

In den vorliegenden Ausführungen werden Antworten auf die folgenden drei Fragen gegeben: Wandern die Heringe durch die Nordsee ? Warum kann man auf demselben Fangplatz nicht mit Treibnetz und Schleppnetz gleichzeitig Erfolge erzielen ? Warum fängt der Treibnetzfischer am besten nachts, der Schleppnetzfischer dagegen tags ?

**An.** - Heringsräuber. – 2 Aufn. Dtsch. Fisch.-Rundschau, 18, 409. Bremerhaven (1935). **b - 1960**

Heringsfeinde unter den Tieren (Möwen, Walen, Thunfischen und Haien).

**An.** - Entwicklung und Aufbau der deutschen Heringsfischerei. 1. Der Heringsfang mit dem Treibnetz. – Dtsch. Fisch.-Rundschau, 22, 505-506. Bremerhaven (1935). **b - 1961**

Mit Bezug auf die wirtschaftliche Bedeutung und Entwicklung der deutschen Heringsfischerei, schildert Vf. die Struktur dieses Gewerbes mit besonderer Berücksichtigung der geschichtlichen Entwicklung der deutschen Treibnetzheringsfischerei und ihrer Begründung an der Nordsee während der letzten Jahre.

**An.** - Die niederländische Heringsfischerei 1934. – 2 Tab., Dtsch. Fischwirt., II, 18, 398. Berlin (1935). **b - 1962**

Statistische Angaben, aus denen es vorkommt, dass in 1934 die Erträge gut, aber die Preise schlecht gewesen sind, und dass die Regierung zur Hilfe der Fischwirtschaft eingreifen musste.

**An.** - Zum Beginn der Sprottensaison. – Dtsch. Fischwirt., II, 36, 693-694. Berlin (1935). **b - 1963**

Die Kieler Sprottensaison; Vergleich zwischen Hering und Sprott und deren Vorkommen. Bedeutung des Verbreitungsgebietes der Sprotten an der Ostseeküste für den deutschen und ausländischen Fang; die verschiedenen Branchen der Sprottenindustrie und ihre Entwicklung in den betreffenden Ländern.

**An.** - Der deutsche Trawlheringsfang 1934. – 1 Tab., Fischmarkt, III, 1, 19-20. Cuxhaven (1935). **b - 1964**

Statistische Angaben.

**An.** - Preparations Under Way for Fall Menhaden Season in North Carolina and Florida. – Fish & Oyst. Rep., XVI, 11, 3 & 11. Tampa, Fla. (1935). **b - 1965**

Brief account of the boats engaged in preparations for the fall fishing in the waters of North Carolina and Florida, equipment of the plants for production of fish scrap and meal, and of fish oil.

**An.** - (Trad. du russe par le Capit. Cochin.) Expédition pour l'étude de l'industrie du hareng dans la Mer de Barentz. – Rev. Trav. Off. Pêches Marit., VII, 3, 333. Paris (1934). **b - 1966**

Traduction d'une Note publiée dans le « Bulletin de l'Institut Arctique », 3, 60, 1933.

## *Scomberidae.*

**Antraygues** - Du « Tassergal », *Temnodon saltator* (L.). Importance de ce poisson au point de vue du développement de l'industrie de la pêche dans la zone française du Maroc. – Tabl., VII Congr. Int. Aquicult. & Pêche Paris (1931), Communications, III, 311-328. Impr. du Loiret. Orléans (1935). **b - 1967**

Notes historiques sur la pêche depuis 1815. Le nom Tassergal et la classification. Morphologie, distribution; pêche: époques et valeur en comparaison avec celle des Sardines, préparation.

**Arcidiacono F.** - Contributo alla conoscenza della pesca dell'Alalonga nel basso Tirreno e nell'Ionio. – Boll. Pesca, Piscicolt. e Idrobiol., XI, 2, 323-337. Roma (1935). **b - 1968**

Biologia dell'alalonga (*Thynnus alalonga*) e sua comparsa nei nostri mari. Periodi adatti per la sua cattura; pesca con le reti e alla traina e perfezionamenti apportati a questo sistema. Piano di studi sulla pesca dell'alalonga.

**Belloc G.** - La pêche du thon blanc ou germon. – 8 fig., 2 tabl., 1 pl., Mém. Off. Pêches Marit., Sér. Spéc., 10, 2, Man. Pêches Marit. Franç., 118-126. Paris (1935). **b - 1969**

Chapitre de la III-ème Partie du « Manuel des Pêches Maritimes de France », dans lequel l'A. traite des différentes espèces de thon, des bateaux et des centres de pêche du thon, des engins et de la technique de la pêche, du traitement du thon à bord et de la motorisation des bateaux thonniers.

**Godsil H. C.** - Locality Records and the Tuna Fishery. – 2 charts., Div. Fish & Game, Bur. Comm. Fish., Fish Bull. 44, 41-43. Sacramento, Calif. (1935). **b - 1970**

Brief information on the organization of the statistics of tuna fishing localities, as adopted by the Bureau of Commercial Fisheries of California. A reproduction of the charts is given.

**Kyte F. L.** - Sworder, Ahoy! – 3 phot., Canad. Fisherm., XXII, 8, 11-13. Gardenvale, Que. (1935). **b - 1971**

An account of the Cape Breton swordfishery, its birth, development and progress, illustrated by a description of a swordship–campaign of the little vessel « Stranger ».

**Miyamoto H.** - The Form of Amberfish Keddle Net on the Basis of Model Experiments. (In Jap., Engl. Rés.). – 1 pl. with figs., 4 tabl., 3 fig., Bull. Jap. Soc. Scient. Fish., IV, 3, 153-157. Tokyo (1935). **b - 1972**

The form of model net constructed according to Tauti's principle was sketched both from above and lateral sides under the current in the prevailing directions in Iwae fishing ground. The sketches are reproduced here.

**Uda Mititaka & Tukusi Ziro** - Local Variations in the Composition of Various Shoals of « Katuwo » *Euthynnus vagans* (Lesson), in several Sea-districts of Japan. (In Jap., Engl. Rés.).– 6 tabl., Bull. Jap. Soc. Scient. Fish., III, 4, 196-202. Tokyo (1934). **b - 1973**

The composition of various shoals of "Katuwo" in each sea–district offers a certain peculiarity. In the northern sea–district the shoals are mainly associated with sharks and crowded densely in number, while in the southern they are mainly associated with birds or attached to banks and crowded thinly. The leading shoals vary from northern to southern sea–districts in succession from those associated with sharks, whales, birds or drifting timbers and to those attached to banks. (From A:s rés.).

**An.** - Mackerel Season Open. – 1 phot., Fish. Gaz., LII, 5, 9. New York (1935). **b - 1974**

Statistical statements concerned with the beginning of the mackerel season in the United States.

**An.** - Swordfishing ! – 2 phot., Fish. Gaz., LII, 7, 7. New York (1935). **b - 1975**

Actual conditions of the swordfishing as related by Capt. Manuel Avilla, a New Bedford skipper and owner of the "Bethlehem", a typical craft of the swordfishing fleet.

## *Salmonidae.*

**Alexander G. J.** - A Brief Statistical Review of the Sockeye Fishing and Canning Industry in Rivers Inlet. – 4 graphs, 2 tabl., Rep. Comm. Fish. Brit. Columb., 1934, 68-75. Victoria, B. C. (1935). **b - 1976**

The report shows the increase of the numbers of boats fishing for sockeye salmon in Rivers Inlet during the past twelve years, and a decrease in the average salmon–packs and individual earnings of the fishermen and their effect on the salmon–canning industry. Causes of the drop of efficiency of gill–nets in Rivers Inlet.

**Allotte M.** - Le saumon et les rivières ou il ne peut plus gagner ses frayères. – VII Congr. Int. Aquicult. & Pêche Paris (1931), Communications, III, 233-237. Impr. du Loiret. Orléans (1935). **b - 1977**

Sur les obstacles constitués par différentes constructions hydrauliques et remèdes.

**Decantelle A. P.** - La position des échelles à saumon. – VII Congr. Int. Aquicult. & Pêche Paris (1931), Communications, III, 244-245. Impr. du Loiret. Orléans (1935). **b - 1978**

En se basant sur ses nombreuses observations faites en qualité d'amateur de pêche au saumon, l'A. conclut qu'il faudrait faire coïncider l'entrée de l'échelle avec le point d'attirance du saumon, c'est–à–dire placer l'échelle au pied même du barrage et dans le chenal.

**Dolghikh B.** - Sur l'*Oncorhynchus keta.* (En russe). – Fig., tab., 135 pp., Oghiz. Irkoutsk-Moskva (1934). **b - 1979**

L'A. considère les saumons *O. keta* comme un groupe ethnographique particulier de la région soviétique du Nord et en décrit les différentes formes y compris la plus septentrionale, qui se rencontre dans la rivière Kourejka.

**Doubrovskaja N. V.** - Sur la question du cycle évolutif de l'*Oncorhynchus gorbuscha* Wal. des provinces maritimes de l'Extrême-Orient russe (Primorje). (En russe). – 1 fig., 4 tab., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient) 1/2, 65-68. Moskva-Khabarovsk (1934). **b - 1980**

Résultats de la lecture des écailles, de la détermination de l'âge, du poids, et des dimensions des jeunes *O. gorbuscha* Walb. capturés non loin des côtes méridionales du Primorje qui permettent de jeter une certaine lumière sur les migrations de ce poisson des endroits du frai aux endroits où ils trouvent la meilleure nourriture.

**Foerster R. E. & Pritchard A. L.** - The Identification of the Young of the Five Species of Pacific Salmon, with Notes on the Fresh-Water Phase of their Life-History. – 1 fig., 6 tabl., 1 pl. o. t. Rep. Comm. Fish. Brit. Columb., 1934, Append., 106-116. Victoria, B. C. (1935). **b - 1981**

1. Discussion of variable characters, records, mainly for the fisheries scientist, certain detailed observations which are now at hand concerning various body characters. 2. A general description of species, general information concerning habits and appearance of each species. 3. Key for separating the various species and a plate illustrating the typical markings characteristic of each species.

**Lachadenède (de)** - Le saumon dans les Gaves et les échelles à Poissons. – VII Congr. Int. Aquicult. & Pêche Paris (1931), Communications, III, 238-243. Impr. du Loiret. Orléans (1935). **b - 1982**

Après quelques observations générales sur les obstacles formés par les constructions hydrauliques pour les poissons migrateurs l'A. décrit une échelle construite et soumise à l'expérience au laboratoire hydraulique de Banlève.

**Marquard O.** - Beitrag zur Lachsfrage im Ostseegebiet. – 1 Karte, 1 Tab., Dtsch. Fischwirt., II, 22, 466-468. Berlin (1935). **b - 1983**

An Hand der Erforschung der Lachs–und Forellenbiologie im Ostseegebiet von Prof. Dr. Willer, berichtet Vf. über den heutigen Zustand, die Art der Fischereiausübung, die Ergebnisse der Lachsfischerei hinsichtlich ihrer Grösse und Gewichte, die Anlandungen von Lachsen, die Schwankungen der Lachsfangzahlen, die Ergebnisse der Lachsmarkierung, die Wanderungen des Lachses, den Zusammenhang zwischen dem Anwesen von Sprotten, Tobiasaal und anderen Fischen und der Lachsfischerei in Ostpommern.

**Monastyrsky G. N.** - On the State of Raw Resource of the Salmon in the North Fisheries Region. (In Russ. Engl. Summ.). – 4 graphs, 35 tabl., Works Labor. Ichthyol., Trans. USSR Inst. Fish. & Oceanogr., II, 5-59. Moscow (1935). **b - 1984**

Results of an investigation carried out in order to define the factors affecting the reduction of salmon catch in the Russian Northern fishery region. Some data on the biology of *Salmo salar*: The propagation of *S. salar*, the northern salmon runs in the different districts, weight and length of the salmon; sex and age groups; the fray; the run to the sea; age and dimension of salmon. Catches and their fluctuations on the different fishing grounds. On the measures taken to reconstruct the stock of northern salmon. Bibl.

**Poulsen E. M.** - Recent Investigation into the Stock of Salmon and Sea Trout in the River Gudenaa. – 8 figs., 9 tables. Rep. Danish Biol. Stat., XL, 9-37. Copenhagen (1935). **b - 1985**

Author discusses the decreasing yields of salmon and trout fisheries in the Gudenaa and the Randers Fjord during recent years and the causes of the decrease, with special reference to the growth of the sea trout and its migration to the sea, its sea life, its growth after the descent into sea, the length at the end of the different growth periods, the ascent of the sea trout from the sea, the condition of the Gudenaa sea trout and the means of restoring the stock of salmon and sea trout in the Randers Fjord and the Gudenaa.

**Siedlecki M.** - Salmon and Trout Committee 1934. – Rapp. Pr.–Verb. Cons. Expl. Mer, XCIV, 2ème partie. Rapp. administr. (1934-1935), 77-83. Copenhague (1935). **b - 1986**

General. Denmark. England. Finland. France. Germany. Irish Free State. Latvia. Poland. Portugal. Scotland. Spain. Sweden.

**Thompson H.** - Salmon Investigations. – Rep. Newfoundl. Fish. Research Labor., II, 3, 39-41. Newfoundland (1935). **b - 1987**

Some results based on data collected from the coastal and river runs of salmon in Newfoundland, from measurements and scale samples, with especial reference to the proportion of the number of small fish (grilse) to the number of larger salmon and to the unusually long duration of the early river (parr) life of all Newfoundland salmon except those of the south coast.

**Williamson H.** - Salar the Salmon. – 319 pp., Faber & Faber, Ltd. London (1935). **b - 1988**

**Fisheries Commissioner** (of British Columbia) - Pack of British Columbia Salmon, 1934. – 6 tabl., Rep. Comm. Fish. Brit. Columb., 1934, 117-122. Victoria, B. C. (1935). **b - 1989**

Six tables containing statistical statements showing the origin and pack of salmon caught in each district (of British Columbia) from 1919 to 1934. The pilchard industry of the province, 1920 to 1934, inclusive.

**Fisheries Secretary** - Salmon and Fresh Water Fisheries. Report for the Year 1934. – 1 fig., 3 tabl., 4 pls. o. t., H. M. Stat. Off., Ministr. Agric. & Fish., 3-37. London (1935). **b - 1990**

The season of 1934, Furuncolosis. Pollution. Work at Alresford Experimental Station. Administration. Miscellaneous Appendices: List of Fishery Boards. Securities held by certain Fishery Boards. Accounts of Trust Funds held by the Ministry,. Salmon received at Billingsgate. Imports and exports of salmon, 1933–34.

## *Mammalia marina.*

**Bower Ward T.** - Alaska Fishery and Fur-Seal Industries in 1934. – U. S. Dpt. Comm., Bur. Fish., Append. I to Rep. Commission, Fish. Fisc. Year 1935, 1-73. Washington D. C. (1935). **b - 1991**

Account of the Bureau's of Fisheries work in connection with the conservation of the fisheries of Alaska and the protection and management of the Pribilof Islands fur-seal herd.

**Dakin W. J.** - Whalemen Adventurers: the Story of Whaling in Australian Waters and other Southern Seas related thereto, from the Days of Sails to Modern Times. – 40 pl., XX + 263 pp., Angus and Robertson, Ltd; Sydney & London (1934). **b - 1992**

**Decksbach K.** - La chasse norvégienne aux animaux marins. (En russe). – 1 fig., tabl., Za Rvbn. Ind. Sev., 9, 42-44. Leningrad (1934). **b - 1993**

**Dierks** - Wiederaufnahme des deutschen Walfangs. – Dtsch. Fisch.-Rundschau, 25, 573–574, Bremerhaven (1935). **b - 1994**

Bericht über die erste deutsche Walfangsexpedition, die nach 75 Jahren Unterbrechung wieder zum Fange auslaufen wird. Ursachen der Wiederaufnahme.

**Dohm E. H. A.** - Alemani y la industria ballenera. – Industr. Pesquer., VIII, 167, 5–7. Vigo (1934). **b - 1995**

**Doukhovnyj M. M.** - La pêche de la « beloukha» (*Delphinapterus leucas* Pall.) dans la baie de l'Obj pendant l'été 1931. (En russe). – Rab. Obsko–Tazovsk. Naoutchn. Rybn. Choz. Stantz. VNIRO, I, 1, 1–15. Toboljsk (1934). **b - 1996**

**Doukhovnyj M. M.** - *Delphinapterus leucas* Pall., dans la Baie de l'Obj. (En russe). – 1 graph., 3 tabl., Abstr. Works Inst. Zool., 1, 79–82, Moscow (1935). **b - 1997**

Résultats d'une exploration de la Baie de l'Obj faite dans le but de déterminer les zones, l'époque et l'éventuel montant de la chasse à *D. leucas* Pall. dans la Baie de l'Obj, ainsi que certaines données sur la composition, au point de vue de l'âge, du sexe et des dimensions des animaux.

**Emerson A.** - Whale caught in Carquinez Straits. – 1 fig., Calif. Fish & Game, XXI, 3, 261. Sacramento (1935). **b - 1998**

Short note on a species not previously known to the fishermen here, *Megaptera versabilis*, caught near Benicia on May 26, 1935.

**Govorkov I. V.** - « Beloukha ». Sa chasse et sa manipulation. (En russe). – 93 fig., 168 pp., Snabtekhizd., Leningrad (1934). **b - 1999**

**Gray R. W.** - Peterhead Sealers and Whalers: a Contribution to the History of the Whaling Industry. I. The Whale–Fishery of the Greenland Sea. – Scott. Natural., 197, 129–133; 198, 157–162 (1932). 199, 1–10; 200, 33–38; 202, 97–104; 203, 129–138 ; 204, 161–170 (1933). Edinburgh (1932 & 1933). **b - 2000**

**Greene W. H.** - The Wooden Walls Among the Ice Floes: Telling the Romance of the Newfoundland Seal Fishery. – Ills., maps, xx–298 pp., Hutchinson & Co., London (1933). **b - 2001**

After a general introduction on the ice, climate, seals and sealers of Newfoundland, author gives an account of a voyage made by himself on a sealing steamer to the seal patches. His book represents a full record of a disappearing occupation.

**Hérubel M.** - Baleines et baleiniers. – Soc. Amis Inst. Océanogr. Havre, XVII, 48, 1–4. Le Havre (1935). **b - 2002**

Conférence tenue à la Société le 12 Février. Histoire de la pêche française à la baleine depuis 1600.

**Hjort J., Lie J. & Ruud J. T.** - Pelagic Whaling in the Antartic. V. The Season 1934–1935 – tabl., 2 pls., 7 figs., Hvalråd. Skr., Scient. Res. Mar. Biol. Research., 12, 1–37. Oslo (1935). **b - 2003**

Analysis of the material. Whaling grounds. The monthly catches. Catches in the different areas. Composition of the stock of Whales. Comparison with results of preceding seasons. Conclusional remarks on the necessity to limit the whaling in the Antarctic. Appendix: Minutes and conclusions of a Whaling conference held in Oslo in October 1935.

**Hudtwalker C. H.** - Der Walfang als volkswirtschaftliches Problem. – 144 S., Forchheim (1935) **b - 2004**

Der erst Teil behandelt das Material, Methoden, Produktion und Produkte, der zweite die Geschichte des Walfangs. Der dritte Teil bezieht sich besonders auf den norwegischen Walfang: wirtschaftliche und administrative Verhältnisse und der vierte auf die Preisbildung, Begrenzung des Fanges und neue Verordnungen besonders in Bezug auf das Öl.

**Hultén E.** - Pälssälarna i Berings hav. Ett naturskydd på ekonomisk grundval. – Sveriges Natur, 147–157. Stockholm (1934). **b - 2005**

**Kircheiss** - Walfang tut Not! – Dtsch. Fisch.-Rundschau, 25, 575–576. Bremerhaven (1935). **b - 2006**

Betrachtungen über die Notwendigkeit des Walfangs für das deutsche Volk.

**Leusner H.** - Deutschland wird Walfängernation. – Dtsch. Fisch.-Rundschau, 20, 460–461. Bremerhaven (1935). **b - 2007**

Kurze Geschichte des deutschen Walfangs seit 1871; Voraussetzungen für das Ent- und Bestehen einer Walfangflotte im neuen Deutschland; Argumente von C. H. Hudtwalker gegen einen deutschen Walfang; Stellungsnahme gegenüber den oben erwähnten Argumenten; die Entwicklungsmöglichkeiten einer deutschen Walfangindustrie.

**Schnakenbeck W.** - Walfang und Wale. – 7 Tab., Fischmarkt, III, 8, 203–213. Cuxhaven (1935). **b - 2008**

Anteil der einzelnen Walfang betreibenden Länder an der Tranausbeute und die Bestrebungen Deutschlands, selbständig einen Teil des deutschen Bedarfs an Waltran zu decken. Die heftige Ertragssteigerung des Walfanges in den letzten Jahren und die Bedeutung, welche die Antarktis im Walfange gewonnen hat. Statistische Daten in Bezug auf die steigende Ausnutzung der gefangenen Wale, die Zusammensetzung des Walfangertrages nach einzelnen Walarten, die durchschnittliche Grösse der gefangenen Wale, die Gefährdung des Walbestandes und die Schwankungen in der Walerträgen und Walgrössen. Betrachtungen über die biologischen Verhältnisse der verschiedenen Walarten.

**Tschapskij K. K.** - Résultats de la chasse aux animaux polaires faites à bord de navires dans l'Arctique Soviétique en 1933. (En russe). – 3 tabl., Bull. Arct. Inst., 10, 361–364. Leningrad (1934). **b - 2009**

Brèves indications des trajets couverts par les quatre bateaux envoyés à la chasse dans les eaux de l'Arctique Soviétique; résultats de la chasse; possibilité du développement de la chasse aux animaux polaires dans les mers arctiques.

**Tschapskij K. K.** - Tactics and Technics of the Hunting from Vessels in the Arctic Regions of USSR (Hunting of Walrus, Bearded Seal and Polar Bear in the Kara Sea). (In Russ.). – 37 figs. Mater. Study Arct., 5, 1–122, Arct. Inst. USSR. Leningrad (1934). **b - 2010**

Brief description of the hunting vessel and its equipment. Cruises. Chronometrical summary of the catch 1931. Tactics and technics of the hunting. Preliminary treatment of the product obtained. Some supplementary proposals concerned with the reorganization of the industry.

**Zajkov M. F.** - La pêche de la «beloukha» (*Delphinapterus leucas* Pall.) dans la Baie de l'Obj pendant l'été 1932. (En russe). – Rab. Obsko–Tazovsk. Naoutchn. Rybn. Choz. Stantz, VNIRO, II, 1, 17–44. Toboljsk (1934). **b - 2011**

**Zenkovitsch B. A.** - La chasse à la baleine dans la Mer de Kamtchatka et la Mer de Bering (Saison 1933). (En russe). – 3 tabl., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2 113–118. Moskva–Khabarovsk (1934).

(—) 3 tabl., Rybn. Choz. U. S. S. R., 2, 16–19. Moskva (1934). **b - 2012**

Observations faites sur la chasse de la baleine dans la région qui s'étend du Cap Lopatka jusque dans la Mer Polaire. Perspectives de la chasse; organisation de Stations de Chasse dans le golfe Kronotzkij et dans la région du golf de St. Laurent. Quelques conclusions concernant les lieux de concentration des baleines basées sur les résultats de recherches concernant les migrations de ces dernières dans les mers polaires. Les espèces de baleines que l'on rencontre dans les mers polaires. Rendement en graisse des différentes espèces de baleines.

**Zenkovitsch B. A.** - La pêche de la baleine dans l'URSS en 1934. (En russe). – 2 tabl., Rybn. Choz. Daljn. Vost., XIII, 1, 65–66. Khabarovsk (1935). **b - 2013**

Données statistiques sur la pêche de la baleine dans les mers de l'Extrême-Orient: nombre des exemplaires capturés par espèces et quantité de produits extraits en tonnes.

**Zhilinskij A.** - Tentative du développement de la chasse aux animaux marins dans l'Arctique. (En russe). – 2 fig., 2 tabl., Arctica, II, 177–185. Leningrad (1934). **b - 2014**

Après un bref aperçu historique sur la chasse aux animaux marins dans l'Arctique avant la révolution russe, l'A. décrit le nouvel essor donné à cette industrie par le gouvernement soviétique qui depuis l'année 1929 organisa plusieurs expéditions dans le but d'étudier les possibilités du développement de cette chasse, d'élaborer le type le plus rationnel de bateau de chasse pour les latitudes glaciales, ainsi que des engins de chasse que l'on devrait employer. Pour conclure l'A. résume en quatre points les mesures que l'on devrait appliquer en vue du développement de l'industrie de chasse des animaux marins.

**Zhilinskij A.** - La chasse aux animaux marins et la mise en valeur de la Grande Voie Maritime du Nord. (En russe). – Karelo–Mourm. Kraj, 3/4, 67–68. Leningrad (1934). **b - 2015**

**Zhilinskij A.** - Sur l'organisation de la pêche septentrionale de la « beloukha ». (En russe). – 2 fig., Za Rybn. Ind. Sev., 6, 33–34, Leningrad (1934). **b - 2016**

**Zhilinskij A.** - Sur le développement de l'industrie de la pêche et de la chasse aux animaux marins dans l'Arctique. (En russe). – Za Rybn. Ind. Sev., 9, 31. Leningrad (1934). **b - 2017**

**V. E.** - Sur la chasse au phoque dans la Mer Blanche en 1935. (En russe). – Bull. Arct. Inst., 1/2, 24, Leningrad (1935). **b - 2018**

Programme préliminaire de l'organisation de la chasse en 1935.

**V. E.** - Whaling in the Far–East in 1933. (In Russ.). – Bull. Arct. Inst., 8/9, 316. Leningrad (1934). **b - 2019**

Composition of the catches : *Balaenoptera physalus* L., *Physeter macrocephalus* L., *Megaptera nodosa* Bonn., *Balaenoptera musculus* L., *B. borealis* Les., *Rhachianectes glaucus* Cope, and *Hyperoodon rostratus* ; information on the observed migrations of the whales ; possible development of soviet whaling in the Far East.

**An.** - Hunting Expedition of the Arctic Institute in the Kara Sea. (In Russ. & Engl.). – Bull. Arct. Inst., 7, 203, 228. Leningrad (1935) **b - 2020**

Brief account of the program of a study of the life history of sea–mammals and the hunting conditions of the Orange Islands, off Cape Zhelanija (Novaja Zemlja).

**An.** - La pêche de la baleine dans la région de la Baie Providjenije. (En russe). – 1 tabl., Bull. Arct. Inst., 8, 253. Leningrad (1935). **b - 2021**

Données statistiques sur le nombre des exemplaires capturés entre 1930–1934.

**An.** - Stimmen aus Norwegen zum deutschen Walprojekt. – Dtsch. Fisch.-Rundschau, 10, 219–220. Bremerhaven (1935). **b - 2022**

Uebersetzung einiger in der norwegischen Presse veröffentlichten Artikel, welche sich auf die Stellungsnahme Norwegens zu der beabsichtigten Gründung einer deutschen Walreederei beziehen.

**An.** - La chasse à la baleine dans la région du Groenland et des Iles Faroe. (En russe). – Za Rybn. Ind. Sev., 12, 45. Leningrad (1934). **b - 2023**

Données statistiques pour l'année 1933.

## *Crustacea.*

**Belloc G. & Le Gall J.** - La pêche aux crustacés. – 20 fig., 3 tabl. Mém. Off. Pêches Marit., Man. Pêches Marit. Franç., Sér. Spéc., 10, 2, 127–139.Paris, (1935). **b - 2024**

Chapitre III du « Manuel des Pêches Maritimes Françaises » III<sup>e</sup> Partie : Les différentes espèces de crustacés pêchés en mer par les pêcheurs français. Centres d'armement, bateaux et engins. La pêche à la crevette et à la langoustine.

**Schnakenbeck W.** - Wirtschaftliche Verwertung von Dorngarnelen. – 1 Abb. Fischmarkt, III, 3, 76–77. Cuxhaven (1935). **b - 2025**

Bericht über die zum ersten Male im Jahre 1932 in der Niederelbe beobachtete Dorngarnele (*Leander longirostris*), welche sich in den letzten Jahren sehr stark vermehrt hat. Offenbar muss sie zur Fortpflanzung Salz- oder Brackwasser aufsuchen, aber die jungen Tiere wandern wieder in das Süsswasser ein. Es handelt sich um eine Art, welche, obwohl sie auch der Ostseekrabbe verwandt ist, eine ganz andere Art vorstellt. Statistische Angaben über die Fänge dieser Garnele und über die mögliche Art ihrer Verwertung in der Konservenindustrie.

**Smith W. C. & Cregeen T. N.** - An Experiment in Lobster Rearing. – Tabl., Proc. & Trans. Liverpool Biol. Soc., XLVIII, 61–64. Liverpool (1935). **b - 2026**

Account of a series of experiments undertaken in order to find out the best type of jars for the rearing of lobster larvae.

**Fishing Gazette editorial** - Biggest Season in Years Predicted as Southern Shrimp Season Starts. – 1 fig., Fish. Gaz., LII, 9, 5 & 8. New York (1935). **b - 2027**

Statistical statements and predictions concerned with the shrimp catches in the South of the United States, which seem to become one of the largest shrimp catches in the history of the shrimp fisheries.

**An.** - The Lobster Industry. – Canad. Fisherm., XXII, 1, 18 (1934) ; 2, 17; 4, 17 ; 5, 19 ; 7, 13 ; 8, 18 ; 9, 15 ; 10, 20–21 ; 11, 15 ; 12, 20. Gardenvale, Que. (1934-1935). **b - 2028**

Condition of the lobster industry during December, 1934 ; tendency in many European countries to balance trade between exports and imports and prohibit importations unless there is an agreement to buy some goods in exchange ; its influence upon the lobster industry. Catch in Western Nova Scotia and New Brunswick. Reports for February and March 1935, proposals for organisation of control. New agreement of the association of buyers and dealers. Production during June 1935. Captures, shipments and prices to the end of July 1935. Conditions of Canadian lobster–industry. Closing of the Canadian lobster fishing season ; usefulness of the establishment of a fishing season.

**An.** - Lobster Catches 1933–1934. – 1 table, Canad. Fisherm., XXII, 1, 19. Gardenvale, Que (1935). **b - 2029**

Table giving the annual catches during the past five years.

**An.** - Ueber die nordische Tiefseegarnele. – Fischmarkt, III, 10, 265–267. Cuxhaven (1935). **b - 2030**

Kurzer Bericht über das Vorkommen in den norwegischen Fjorden, namentlich an der Skagerrakküste, von einer Garnelenart, welche von den Norwegern als Tiefseegarnele, (*Pandalus borealis*) bezeichnet wird, und über die Entwicklung und die grosse Bedeutung der Fischerei dieser Garnele in dem betreffenden Gebiete. Ausserdem sind, an Hand neuerer norwegischer Veröffentlichungen, die Möglichkeiten einer Verbesserung des Absatzes der Garnelen durch eine bessere der Behandlung der Ware, erörtert.

**An.** - Shrimp from San Francisco. – 3 phot., Fish. Gaz., LII, 4, 14–15. New York (1935) **b - 2031**

Some information concerning the shore operations of the shrimp industry in San Francisco Bay, California, which is controlled exclusively by and for Chinese.

**An.** - New Lobster Season Finds Modernized Conditions. – 2 phot., Fish. Gaz., LII, 9, 7. New York (1935). **b - 2032**

Brief description of the new modernized methods of handling lobsters, which has been introduced recently in the storage and shipment of living lobsters in the United States.

**An.** - Le transport des Homards vivants. – Pêche Marit., Pêche Fluviale et Piscicult., XVII, 341–343, 392–393. Paris (1934). **b - 2033**

**An.** - Prehistoric «Crab Culture» in Puerto Rico. – Science, Suppl., 2100, 9. New York (1935). **b - 2034**

Short remark on the great importance of the crab for the prehistoric Indians as is seen from a report of F. G. Rainey to the National Academy of Sciences concerning excavations undertaken on the S. coast of Puerto Rico.

## *Ostreae et alia Mollusca – Molluschicultura.*

**Bachrach E.** - Le bleuissement des Diatomées et le verdissement des Huîtres. Revue critique. – Rev. Trav. Off. Pêches Marit., VIII, 1, 112–123 (Stat. Marit. Biol. Tamaris 1934–35). Paris (1935). **b - 2035**

L'A. passe rapidement en revue les principaux faits connus sur le verdissement des Huîtres et ses rapports avec les Diatomées : Morphologie et biologie de la Diatomée bleue : *Navicula ostrearia*. Origine et nature de la marennine. Signification du processus de bleuissement. Absorption du pigment par l'huître. Investigations complémentaires qui s'imposent.

**Bonnot P.** - The California Oyster Industry. – Calif. Fish & Game, XXI, 65–80. Sacramento (1935). **b - 2036**

**Borde F.** - Observations sur la production du naissain dans le Bassin d'Arcachon en 1932, 1933 et 1934. – 1 fig., 6 graph., Rev. Trav. Off. Pêches Marit., VIII, 1, 102–111. Paris (1935). **b - 2037**

Pour chaque année l'A. a étudié : la pluviosité et la densité du Bassin d'Arcachon, la croissance, la fixation des larves et le rendement de la récolte en faisant la numération des larves.

**Chaux-Thévenin H.** - Notes sur la production du naissain d'Huîtres portugaises dans la Région de Marennes de 1932 à 1934. – 3 fig., 4 tabl., 27 graph., Rev. Trav. Off. Pêches Marit., VIII, 1, 79–101. Paris (1935). **b - 2038**

D'une façon générale, le résultat de la campagne 1932 a été moins satisfaisant que celui des années précédentes. Le naissain obtenu a été cependant en quantité suffisante pour que les ostréiculteurs ne se plaignent pas. Le même résultat a été obtenu pour la campagne 1933. Comme résultat de la campagne 1934 il semble que le naissain recueilli ait été abondant sur les rives de la Seudre, moins nombreux à Ronce et très rare sur les parcs d'Oléron.

**Fischer-Piette E.** - Histoire d'une moulière. Observations sur une phase de déséquilibre faunique. – Bull. Biol. France et Belg., LXIX, 2. Paris (1935). **b - 2039**

**Herman A.** - Rapport sur la reproduction des Huîtres indigènes dans le Morbihan et le Finistère en 1934. – 5 fig., Rev. Trav. Off. Pêches Marit., VIII, 1, 70–78. Paris (1935). **b - 2040**

La récolte sera pour l'ensemble du secteur breton, bien supérieure à l'année dernière. Les nombreuses Huîtres adultes présentes sur les parcs ont compensé la déficience des gisements naturels. Les deux centres producteurs de naissain, la rivière d'Auray et la rivière de la Trinité, se détachent nettement des autres rivières où les essais de reproduction ne sont encore qu'à la période expérimentale.

**Hopkins A. E.** Attachment of Larvae of the Olympia Oyster, *Ostrea lurida*, to Plane Surfaces. – Ecology, XVI, 82–87. New York (1935). **b - 2041**

**Kändler R.** - Austernwirtschaft im Ausland und in Deutschland. – Fischmarkt, III, 11, 284–288 ; 12, 312–323. Cuxhaven (1935). **b - 2042**

Kurze Lebensgeschichte der Austern, ihre Ernährung, die ihnen drohenden Gefahren, ihre grosse Fruchtbarkeit : Die Erschöpfung der natürlichen Austernbänke im nordfriesischen Wattenmeere ; letztere Massnahmen zur Förderung der deutschen Austernfischerei. Statistische Angaben über die Entwicklung der Austernwirtschaft in den anderen Ländern.

Die Ursachen der gegenwärtigen Verarmung der Austernbänke. Massnahmen zur Erhaltung der Austernbänke und Förderung der Austernkultur. Die in Europa gezüchteten Austernarten. (Schluss folgt).

**Kuramoto M.** - Recherches expérimentales sur la vénimosité des huîtres pendant la période du frai. (En jap.). – 2 fig., 16 tabl., Gun-I. Z., 235, 985-1002, (?). (1934). **b - 2043**

Résultats d'expériences faites avec des extraits des œufs et du sperme de *Ostrea gigas* Thunberg au moment culminant de la période de sa reproduction (de juin à août) et pendant le restant de l'année, et des extraits des autres parties du corps d'*O. gigas* servant de contrôle. L'extrait des cellules de reproduction injecté dans le péritoine et dans les veines de la queu de la souris a eu un effet mortel, même lorsqu'une faible quantité en a été injectée.

**Lambert L.** - Certificat sanitaire ostréicole français. Son équivalence ou sa reconnaissance à l'étranger. – VII^e^ Congr. Int. Aquicult. & Pêche, Paris (1931). Communications, III, 163-166. Impr. du Loiret, Orléans (1935) **b - 2044**

Les points essentiels du décret d'un contrôle sanitaire de la production huitrière et son commerce au 31 juillet 1923. Le contrôle hygiénique à l'étranger. Proposition d'équivalence des certificats entre la France et l'étranger.

**Lambert L.** - Etudes sur la biologie des Mollusques, sur leur reproduction et sur la fixation du naissain. – Rev. Trav. Off. Pêch. Marit., VIII, I, 54-62, Paris (1935). **b - 2045**

Historique des observations entreprises à ce sujet (dès l'année 1921) par plusieurs savants. Développement et progrès de ces études. Recherches nouvelles commencées en 1931.

**Needler A. W. H.** - Rearing Separate Oyster Spat on Trays. – 6 figs., Biol. Bd. Canada, Bull. XLVIII, 1–12. Ottawa (1935). **b - 2046**

This method has been used successfully at the Prince Edward Island Biological Station, Ellerslie, P. E. I., where it was developed as an attack on the serious losses caused by starfish among small oysters.

**Pohl L.** - Observations de M. Hervé sur la pêche des perles aux Tuamotou, et conclusions pratiques à en tirer. – VII^e^ Congr. Int. Aquicult. & Pêche, Paris (1931). Communications III, 341–345. Impr. du Loiret. Orléans (1935). **b - 2047**

Récension du travail de Hervé : « L'huître perlière aux Tuamotou » publié le 15 mai 1930.

**Radcliffe L.** - Oyster Institute of North America. – Fish & Oyst. Rep., XVI, 11, 6. Tampa, Fla. (1935). **b - 2048**

Account of the most important activities of the Institute, with special regard to the initiation of its program of work, its advertizing program, questionnaires sent to subscribers, and promotion service.

**Sheafer T. E.** - Slag as a Material for Construction and Rehabilitation of Oyster Beds. – Fish & Oyst. Rep., XVI, 7, 2-3, 6-7. Tampa, Fla. (1935). **b - 2049**

Paper presented at the Nineteenth Convention of National Slag Association, Palmer House, Chicago. History of the commercial application of the interesting discovery of oysters clinging to pieces of slag. Summary of recent experiments made with slag.

**Taclet P.** - Recherches sur la reproduction des Huîtres indigènes dans le Morbihan et le Finistère en 1933. – Rev. Trav. Off. Pêches Marit., VIII, 1, 63-69. Paris (1935). **b - 2050**

La récolte du naissain est déficitaire en 1933 comparativement aux années précédentes, notamment en rivières d'Auray et de la Trinité dans le Morbihan. Par contre les essais de récolte de naissain donnent satisfaction aux parqueurs dans les rivières de Pénerf, d'Etel et dans l'anse du Merrien. Il est à remarquer que le naissain est plus gros que celui des années précédentes.

**Teissonniere M.** - Salubrité des coquillages. – Rapp. Pr. Verb. Cons. Expl. Scient. Méditerranée, IX, (n. sér.), 145–163. Paris (1935). **b - 2051**

Epidémiologie. Organisation de la Défense Sanitaire. Propositions préliminaires du Service de Contrôle Sanitaire de l'Office des Pêches Maritimes pour la révision du Décret du 31 Juillet 1923. Bases d'évaluation de salubrité des eaux et des coquillages. Recherches et identification du *B. Coli*. Fixation d'un critérium bactériologique de salubrité. Epuration. Entrepôt.

**Tohyama Y.** - The Bacteriological Analysis of Japanese Oysters. – 3 tabl., Bull. Jap. Soc. Scient. Fish., IV, 2, 75-78. Tokio (1935). **b - 2052**

Results obtained by American Standard method and an English method as well as comparison of Japanese and American Oysters are expressed in tables.
High cleanliness of Japanese Oysters proved.

**Tohyama Y. & Yasukawa Y.** - Purification of Polluted Oysters. (In Jap., Engl. Rès.) – 2 tabl., Bull. Jap. Soc. Scient. Fish.. IV, 3, 176-182. Tokyo (1935). **b - 2053**

Examination of different methods, of which that of Tarbett gave the best results. Conclusions as to the time necessary for purification of oysters from exactly clean waters and from waters polluted as in the Kanazawa Bay, Japan.

**Trawinski A.** - Etudes sur la putréfaction de la chair des Mollusques comestibles. – Bull. Inst. Océanogr., 683, 1-3. Monaco (1935). **b - 2054**

Il résulte de ces études que pendant les processus de putréfaction de *Sepia officinalis*, il se produit des substances antiputréfactives spécifiques qui renforcent l'immunité de la chair des Sépias contre la putréfaction. Dans tous les cas de putréfaction des Mollusques on n'a pu isoler les bactériophages de l'eau pourrie.

**Wright F. S.** - Report on Investigation into the Condition of Certain of the Oyster Beds in the South Wales Sea Fisheries District. – Fish. Invest., ser. 2, XIV, 5. H. M. Stat. Off. London (1935). **b - 2055**

The natural oysters off the South Wales coast have been for many years unproductive. This report describes the efforts made to increase the supply by laying down in a suitable spot a stock of breeding oysters. Encouraging results have been obtained. The report contains also much general information of interest about the oyster and its breeding.

**Wright F. S.** - Report on the Maldon (Essex) Periwinkle Fishery. – Fish. Invest., ser. 2, XIV, 6. H. M. Stat. Off., London (1935). **b - 2056**

An interesting study of the habits and migrations of the Periwinkle on the Blackwater Estuary, undertaken at the request of the Local Authority, who desired advice on measures of conservation.

**An.** - A New Oyster Grader. – Fish. Gaz., LII, 4, 16, New York (1935) **b - 2057**

Description of an oyster grader with a capacity of 25 gallons per hour, and which can grade any size range desired by operator.

## *Varia – Nomenclatura.*

**Behre A.** - Begriffsbestimmung für Fische und Fischzubereitungen, einschliesslich Krebs und Weichtiere. – Dtsch. Fischwirt., II, 20, 425–427; 45, 843–846, Berlin (1935). **b - 2058**

Nach einigen allgemeinen Betrachtungen über die Wichtigkeit regelmässiger Bestimmung in der Fischindustrie, berichtet Vf. in diesem ersten Teile seiner Arbeit über die im Jahre 1932 beratenen Begriffsbestimmungen des Vereins der Fischindustriellen Deutschlands, welche sich auf frische Fische erstrecken. Der zweite Artikel bezieht sich auf geräucherte, gesalzene, marinierte Fische sowie Fische in Oel und Vollkonserven (Forts. folgt).

**Bowles J. P.** - A Real Merchandising Program Needed by Sponge Industry. – 1 fig., Fish. Gaz., LII, 6, 12, New York (1935). **b - 2059**

Some suggestions as to the right type of campaign essential to bring sponges back into public favour.

**Groening A. M.** - Hummern, Austern, Krebse und Kaviar. Sondergebiete der deutschen Fischwirtschaft. - Dtsch. Fischwirt., II, 15, 345–347, Berlin (1935). **b - 2060**

Kurzer Bericht über die Arbeit der auf freiwilliger Grundlage beruhenden Vereinigungen, d. h. der Wirtschaftlichen Vereinigung der deutschen Hummer- und Austern-Importeure e. V., und der Arbeitsgemeinschaften der deutschen Krebse- und Kaviar-, Ein- und Ausfuhrhändler, auf dem Gebiete der Versorgung und des Handels von Krusten- und Schalentieren und des Kaviars.

**Jakunin P. I.** - La capture des Ganoïdes dans le fleuve Amour. (En russe). – Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 91-94. Moskva-Khabarovsk (1934). **b - 2061**

Description des différents engins que l'on emploie actuellement dans la pêche des Ganoïdes dans le fleuve Amour. Bref aperçu historique du développement de cette pêche.

**Jarvis N. D.** - Fishery for Red Snappers and Groupers in the Gulf of Mexico. – 4 figs., 3 tabl., Invest. Rep. U. S. Dpt. Comm. Bur. Fish., I, 26, 1-29. Washington D. C. (1935).

(—) Fish & Oyst. Rep., XVI, 10, 8–9; 11, 5 § 8–9; 12, 4–5 & 8–9. Tampa, Fla (1935). **b - 2062**

During the past several years, the fishery and industry of red snappers (*Lutianus blackfordi*) and groupers (*Epinephelus morio*) in the Gulf of Mexico have encountered difficulty in operating owing to problems connected with marketing as well as those concerned with the production of the catch. The U. S. Bureau of Fisheries has carried on experimental work, an account of which is given in the present paper. Species taken. Fishing methods. Boats. Fishermen. Production. Handling and marketing. Fishing gear and methods of preservation.

**Maxwell M.** - The Sponge, Its Use, How It Is Procured and Prepared. – 1 fig., Fish & Oyst. Rep., XVI, 10, 4-5. Tampa, Fla. (1935). **b - 2063**

Brief description of the sponge industry at Tarpon Springs : the sponge fleet, the methods of gathering sponges, the four varieties of sponge yielded by the Gulf waters, the amount of sponge sales for 1935, the shortage of sponge divers and measures applied in order to counterbalance it.

**Neuhaus E.** - Studien über das Stettiner Haff und seine Nebengewässer. II. Untersuchungen über den Kaulbarsch. – 9 Abb., 12 Tab., Ztschr. f. Fischerei, XXXII, 1-35. Neudamm & Berlin (1934). **b - 2064**

Erträge 1926–1931. Ernährung, Wachstum, äussere Gestalt, Geschlechtsverhältnisse, Parasiten, Beziehungen zwischen Aal, Blei und Kaulbarsch, (*Acerina cernua*), Schwankungen des Kaulbarschbestandes.

**Schnakenbeck W.** - Ueber einige Einlieferungen aus Fischdampferfängen. – 4 Abb., Fischmarkt, 4, 77-79, Cuxhaven (1935). **b - 2065**

Bericht über einige seltene Fische, welche erhebliches Interesse für die Wissenschaft haben : den Maifisch (*Clupea finta*), die Meer- oder Streifenbarbe (*Mullus surmuletus*) den Heringskönig (*Zeus faber*), die Dreibärtelige Seequappe (*Onos tricirratus*) und den gescheckten Kabeljau.

**Schoen A.** - Der Kaulbarsch im Frischen Haff.. – Dtsch. Fischwirt., II, 2, 20-21, Berlin (1935). **b - 2066**

Verbreitung und Lebensbedingungen im Frischen Haff. Ursachen der Schwankungen der Kaulbarscherträge in diesen Gewässern ; tiefe Zusammenhänge zwischen dem Wachstum des Kaulbarsches und der winterlichen Niederschlagsmenge, welche eine reiche Wasserblüte im Haff hervorruft.

**Soudakov M. A.** - La pêche de l'esturgeon (*Acipenser sturio*) dans la Baie de l'Obj en 1932. – Rab. Obsko-Tazovsk. Naoutchn. Rybn. Choz. Stantz. VNIRO, 2, 3-21, Toboljsk (1934). **b - 2067**

**Tejman I. I.** - Utilisation des Plantes marines dans l'industrie du papier. (En russe). – Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.-Orient), 1/2, 133-135. Moskva-Khabarovsk (1934). **b - 2068**

Compte–rendu des résultats d'expériences sur la fabrication de la pâte à papier avec *Phyllospadix* et *Zostera marina*. Les avantages que présente la première espèce en comparaison avec la *Z. marina*. Les différents types de papier que l'on pourrait fabriquer avec les plantes marines. Les recherches susmentionnées ont été conduites au Laboratoire Physico–Chimique de l'Institut Pacifique pour l'Economie de la Pêche.

**Voronov K.** - Objets secondaires de la pêche. (En russe). – Za Rybn. Ind. Sev., 11, 15-17, Leningrad. (1934). **b - 2069**

Sur la pêche des requins, des crevettes et des mollusques dans la Mer Blanche et dans la Mer de Barents.

**An.** - Canadian Fish and Shell Fish Directory. Index des poissons et mollusques comestibles du Canada. (In Engl. & French). – 19 figs., Canad. Fish. Manual, 1935, 25-32, 33-39, Gardenvale, Que. (1935). **b - 2070**

List of the principal varieties of fish and shellfish marketed by Canadian fishermen. It is of alphabetic order and gives a brief description, both in English and French, of the fish, where it comes from, and the manner in which it is packed or processed for market.

## Fructus piscationis aestimatio alimentaris.

**Amyot J. A.** - The Value of Fish in the Diet. – Canad. Fish. Manual, 1935, 40. Gardenvale, Que. (1935). **b - 2071**

Special significance of sea foods in comparison with that of plants and animals. Their therapeutical value.

**Bertarelli F.** - Vie nuove nel campo dell'alimentazione. – Boll. Pesca Piscicult. & Idrobiol., X, 3, 381-385, Roma (1934). **b - 2072**

Viene indicato il valore alimentare della carne di dentice sia allo stato fresco che conservato e il suo impiego in rapporto all'economia nazionale.

**Henry H. B.** - Dietetic Knowledge Will Sell Fish. – 1 ill., Fish. Gaz., Ann. Rev. Numb., 55 & 120, New York (1935). **b - 2073**

Author summarizes the advantages of fish diet with special regard to the nutritive and hygienic value of fish meat.

**Luecke F.** - Der Seefisch als Volksnahrungsmittel. – Dtsch. Fischwirt., 5, 73-74, Berlin (1934) **b - 2074**

Berechtigung der im Titel enthaltenen Forderung vom ernährungsphysiologischen und volkswirtschaftlichen Standpunkt. Krise der Seefischwirtschaft infolge des Rückganges des Konsums. Ursachen der schwierigen Lage. Die Fischwirtschaft im Reichsnährstand und seine Tätigkeit zur Förderung der deutschen Seefischwirtschaft.

**Maggi U.** - I prodotti della pesca ed il problema nazionale dell'alimentazione. – Crit. Zootecn., XII, 6-7, 275-287, Roma (1935). **b - 2075**

Dal bilancio tra produzione, consumo ed importazione del prodotto della pesca, l'A. trae argomento per un esame economico, sociale, sanitario ed agrario del problema nazionale della pesca.

**Manning J. R.** - Fish and Shellfish for Food. – 1 chart, Fish & Oyst. Rep., XVI, 5, 4 & 17. Tampa, Fla. (1935). **b - 2076**

After a brief account of the composition of fish and shellfish, which emphasizes their nutritive value, author gives a chart showing alphabetically the most important fish and shellfish produced in the United States and their content in vitamins, proteins, fat, and mineral nutrients.

**Oseki T.** - Nutritive Value of Whale-liver. (In Jap.; Engl. Abstr.). – Bull. Inst. Phys. and Chem. Res., XIII, 9, 1160-1165. Tokyo (1934). **b - 2077**

High value of vitamin A in the livers of finback Whales and Sei–Whales, vitamin E in the finback.

**Rizzo L.** - La carne di pesce nell'alimentazione giornaliera. – Boll. Pesca, Piscicolt. e Idrobiol., 6, 752-763, Roma (1934). **b - 2078**

Composizione chimica, valore alimentare e dietetico della carne di pesce.

**Webster A. I. & Conn W. T.** - Food Value of Fish and Shellfish. - Fish & Oyst. Rep., XVI, 10, 3, 6-7, Tampa, Fla. (1935). **b - 2079**

Brief summary of the food value of fish and shellfish and of the rôle of the proteins, the vitamins, and the abundant minerals, contained in fish and shellfish meat for the organism ; the note is completed by some considerations concerning purchasing fish and shellfish.

**An.** - Die Belieferung des Winterhilfswerkes 1934-35 mit frischen Seefischen vom Fischmarkt Wesermünde-Bremerhaven. - 2 Tab., Dtsch. Fisch.-Rundschau, 9, 195-197, Bremerhaven (1935). **b - 2080**

**An.** - Fish in the Diet of Children. - Fish & Oyst. Rep., XVI, 6, 9 & 13. Tampa, Fla. (1935). **b - 2081**

**An.** - Fish a Perfect Protein Food. - Fish & Oyst. Rep., XVI, 8, 12-13. Tampa, Fla. (1935). **b - 2082**

Author shows that fish flesh is so constituted that it can serve as the only source of protein in the diet for an indefinite period, since it supplies all the proteins essential to life, and that frequent use of various sea foods, supplying both vitamins A and D as well as lime, serve to diminish the need for taking liver oils as medicine.

# MERCATUS

## *Provisiones, propaganda, venditio, piscium consummatio.*

**Brenning O.** - Zur Bedeutung der Altona-Hamburger Fischwirtschaft. - Dtsch. Fischwirt., II, 33, 643-644, Berlin (1935). **b - 2083**

Die grosse Bedeutung des Altona-Hamburger Küstenfischmarktes für die deutsche Gesamt-Fischversorgung im Vergleich mit anderen Fischmärkten.

**Conn W. T.** - Retailing Fish. - Fish & Oyst. Rep., XVI, 3, 6-7. Tampa, Fla. (1935). **b - 2084**

Certain essential conditions for the successful operation of any retail business. Location of market. Layout of store. Selection of equipment. Sanitation. Marked operation.

**Corbaley Gordon C.** - A Marketing Expert Discusses Our Distribution Problems. - 1 photo, Fish. Gaz., LII, 4, 6 & 18, New York (1935). **b - 2085**

Some considerations concerning the increase of fish consumption, and suggestions for working with voluntaries and cooperatives.

**Finzel.** - Wie muss dem Fischeinzelhandel geholfen werden ? - Dtsch. Fischwirt., II, 40, 757-759. Berlin (1935). **b - 2086**

Wortlaut der Ausführungen abgeliefert während der Sitzung der Fachuntergruppe Fische der Gruppe Nahrungs- und Genussmittel in der Wirtschaftsgruppe Einzelhandel am 23. September 1935 in München (S. : " Dtsch. Fischwirt., " II, 39, 738-739, 1935) und die sich hauptsächtlich mit der Wichtigkeit der Rolle des Einzelfischhandels in dem Wirtschaftsleben Deutschlands und der Massnahmen zur Förderung desselben befasst.

**Higgins E.** - Distribution and Conservation Section. Some Ideas on Fishery Conservation. - 4 phot., Fish. Gaz., Ann. Rev. Numb., 50-51 & 104. New York (1935). **b - 2087**

Author claims that in general fisheries are inexhaustible only if they are properly managed on the basis of sustained yield and points out the importance of scientific study for fishery management. He gives also a brief summary of the rapid progress made by science in the solution of some of the problems regarding the management of the fisheries.

**Johnson F.** - Per Capita Consumption of Fish Only 13,3 lbs. - 2 graphs, 2 tabl., Fish. Gaz., LII, 2, 9-11, New York (1935). **b - 2088**

Data on the estimated annual consumption of fish in the United States and in various foreign countries ; causes of the low consumption in America ; its lack of uniformity over the United States ; comparison of consumption of fish and shellfish with meats.

**Leach G. C.** - Propagation and Distribution of Food Fishes, Fiscal Year, 1933. - Fish & Oyst. Rep., XVI, 3, 4-5; 9, 12-13. Tampa, Fla. (1935). **b - 2089**

Brief account of the activity of the U. S. Federal fish-hatcheries which have been established in 1872. Species handled. Cooperation with other conservation agencies. Cooperation with sportsmen's organization. Assignment of fish eggs to States, territories, and foreign countries. Output of fish. Combination trout and pond-fish stations. Warm-water or pond-fish stations. Distribution operations.

**Leach G. C. & James M. C.** - Food Fishes. Fiscal Year, 1934. - 8 tabl., U. S. Dpt. Comm., Bur. Fish., App. IV, to Rep. Comm. Fish. Fisc. Year 1934, 385-417, Washington D. C. (1935).

(—) Fish & Oyst. Rep., XVI, 9, 5, 8-9, 12. Tampa, Fla. (1935). **b - 2090**

Account of the activity of the U. S. Federal hatcheries, concerning : fish species propagated, production, assignments of fish eggs to States, Territories, and foreign countries, transfer of eggs between stations, output of fish, egg collections, fish-cultural notes.

**Lundbeck I.** - Warum « Fischmarktbiologie » ? - 2 Tab., Dtsch. Fischwirt., II, 3, 38-41, Berlin (1935). **b - 2091**

Vf. betont die Notwendigkeit einer Zusammenarbeit zwischen der praktischen Fischerei und der Fischereiforschung und führt einige Beispiele derselben an mit besonderer Berücksichtigung der Schollenfischerei.

**Matthews J. H.** - Fish Shortage ? - 1 photo, 1 table, Fish. Gaz., Ann. Rev. Numb., 43-47, New York (1935). **b - 2092**

Fishing industry's view point on conservation as applied to marine life and the need of it in commercial or food fisheries ; on hand of statistic statements and scientific considerations, author claims, that, " speaking broadly conservation of life in the sea by man, would neither increase nor decrease the number of its inhabitants, because nature provides a balance with which man cannot interfere ".

**Metzner H.** - Das Absatzproblem für Magerfische. - Fischmarkt, III, 7, 172-174, Cuxhaven (1935). **b - 2093**

Die Intensivierung der Hochseefischerei als Grund für eine starke Steigerung der Fänge an Fett- und Magerfischen. Letztere als starke Verlustquellen für die Reedereien. Die Möglichkeit auch die Magerfische für die menschliche Ernährung zu benutzen. Die Meinung des Physiologen, Prof. Dr. Abderhalden, Halle, über den Nahrungswert der Magerfische. Vorgenommene Versuche zur Verwertung der grossen Anlandungen von Magerfisch.

**Morgan W. F.** - One of the Greatest Needs of the Industry is Marketing. – 2 phot., Fish. Gaz., Ann. Rev. Numb., 58, New York (1935). **b - 2094**

Some valuable suggestions how to increase sales in the fish and sea foods industry.

**Peau E.** - La crise de la pêche et la sous-consommation du poisson en France (à suivre). – Bull. Soc. Amis Inst. Océanogr., XVII, 49, 1-4, Le Havre (1935). **b - 2095**

L'A. discute les causes de la crise qui sévit actuellement aussi dans le domaine de la pêche. Il l'attribue d'une part à la surproduction consécutive à l'intensification de la pêche et à la sous-consommation du poisson en France qui dérive en grande partie de l'inobservance des prescriptions du culte concernant le jeûne.

**Ransch E.** - Auch der Feinkosthandel ist ein notwendiges Glied in der Fisch- und Fischwarenverteilung. – Dtsch. Fischwirt., II, 22, 465–466. Berlin (1935). **b - 2096**

Stellungsnahme zur Rolle des Feinkosthandels gegenüber der Fisch- und Fischwarenverteilung.

**Schmidt O.** - Vorschläge eines Praktikers zur Absatzwerbung und Förderung des Spezialfischhandels. – Dtsch. Fischwirt., II, 12, 199-200, Berlin (1935). **b - 2097**

Beschreibung der verschiedenen in Leipzig versuchten Propagandaformen um den Konsum von Fisch zu fördern; der Unfug der Lebensmittel- und Feinkosthändler, welche in ihren Geschäften auch Fischwaren führen; die notwendigen Einrichtungen in einem Fischfachgeschäft.

**Spencer E.** - Some of the Things I Have Come across in the Fishing Industry. – 1 photo, Canad. Fisherm., XXI, 1, 7-8, 22-27, Gardenvale, Que. (1934). **b - 2098**

A. tells us about her propaganda in different parts of Canada emphasizing the task of the industry not to see too much to the gain at the cost of quality of the fish offered to the public.

**Tjötta L. L.** - Wege zur Hebung des Frischfisch-Verbrauches. - Dtsch. Fischwirt., II, 1, 3-5, Berlin (1935). **b - 2099**

Massnahmen, die den Fischverbrauch im Inneren des Landes heben können mit besonderer Berücksichtigung der im Auslande getroffenen Massnahmen; Steigerung des Fischverbrauches durch Hebung der Qualität.

**Weil L.** - How we Increased Sales with a School of Fish Cookery. – 2 figs., Fish. Gaz., LII, 3, 17-18, New York (1935). **b - 2100**

**Zimmer W.** - Wie soll der Fischeinzelhandel örtlich die Seefischpropaganda unterstützen? Dtsch. Fishwirt., II, 14, 330-331. Berlin (1935). **b - 2101**

Möglichkeiten der Gemeinschaftswerbung durch die örtlichen Fachgruppen für den Seefischgenuss.

**G. - St. D.** - Deutschlands Seefischverbrauch. – 1 Abb., Umschau, XXXIX, 53, 1066, Frankfurt a. M. (1935). **b - 2102**

Der Seefischverbrauch je Kopf der Bevölkerung aus eigener Fischerei für die Jahre 1913–1934 graphisch dargestellt mit erläuterndem Text.

**An.** - Bericht über den Seefischmarkt Wesermünde-Bremerhaven für 1934. – Dtsch. Fisch.-Rundschau, 7, 147-148, Bremerhaven (1935). **b - 2103**

Wichtigste statistische Angaben über die Tätigkeit des Fischmarktes Wesermünde-Bremerhaven aus dem Berichte der Verwaltung des staatlichen Seefischmarktes für 1934.

**An.** - Fischexport gegen Walölexport. – Dtsch. Fisch.-Rundschau, 11, 247-249, Bremerhaven (1935). **b - 2104**

Der vorliegende Auszug ist eine Uebersetzung aus der norwegischen Fischereizeitung "Fiskaren". Er enthält einen Bericht über die bestehenden Meinungsverschiedenheiten zwischen den Fisch- und Walölexporteuren und gibt einen sehr interessanten Einblick in das deutsch-norwegische Verrechnungsabkommen nach den Clearingsverhandlungen, die die beiden Staaten geführt haben.

**An.** - Ist das Experiment der Vereinigung der Fischmarkte Hamburg und Altona geglückt? – 2 Tab., Dtsch. Fisch.-Rundschau, 13, 290-292, Bremerhaven (1935). **b - 2105**

Zusammenfassende Wiedergabe eines von den vereinigten Fischmärkten Hamburg und Altona ausgegebenen Berichtes.

**An.** - Bei objektiver Betrachtung. Eine Klarstellung zur Lage der Fischversorgung. – 7 Tab., Dtsch. Fischwirt., I, 30, 517-520, Berlin (1934). **b - 2106**

Einige statistische Anmerkungen zur objektiven Nachprüfung der Frischfischversorgung Deutschlands.

**An.** - Günstige Aussichten für den Fischabsatz. – Dtsch. Fischwirt., II, 36, 689-690, Berlin (1935). **b - 2107**

Betrachtungen über die Fischerei als Ergänzung der jetzigen deutschen Fleischversorgung.

## *Piscationis fructuum vectura – Vectigalium regimen – Pretia et taxationes.*

**Brose W.** - Mindestverkaufspreise im Seefischgrosshandel. – Dtsch. Fischwirt., II, 44, 821–822. Berlin (1935). **b - 2108**

Kommentar der Anordnung N° 5 der Hauptvereinigung der Deutschen Fischwirtschaft, die im Verkündigungsblatt des Reichsnährstandes Nr. 96 vom 26. Oktober, S. 670 veröffentlicht worden ist. Durch diese Anordnung hat eine jahrelange Entwicklung der Preisgestaltung im Seefischgrosshandel ihren Abschluss gefunden. (S.: Wortlaut der Anordnung 5, auf. S. 827 desselben Heftes).

**Goerdeler** - Der richtige Preis. – Dtsch. Fisch. Rundschau, 12, 261–262. Bremerhaven (1935). **b - 2109**

Ausführungen des Reichskommissars für Pressüberwachung über die Preisgestaltung, Mindestpreise, Festpreise, Verlustpreise und die Grundsätze der staatlichen Preisüberwachung.

**Kajiyama E.** - Experiments on the Transportation of the Prawn, *Penaeus japonicus* (Bate). (In Jap.; Engl. rés.). – Bull. Jap. Soc. Scient. Fish., II, 1, 23–24. Tokyo (1934). **b - 2110**

Report on favourable results obtained by the transportation of live prawns in dry ricehusks.

**Kumleben E.** - Cuxhavens neuer Fischerei-Versandbahnhof. – Dtsch. Fischwirt., II, 9, 150. Berlin (1935). **b - 2111**

Beschreibung des neuen Versandbahnhofes, welcher eine vorbildliche Leistung der Reichsbahn für die deutsche Fischwirtschaft darstellt.

**Mc Kay C.** - Movements of Fish by Rail in 1934. – Canad. Fisherm., XXII, 6, 9–11. Gardenvale, Que (1935). **b - 2112**

Analysis of statistic figures showing the movement of fish by rail in Canada, from which some conclusions are drawn concerned with the fish consumption and trade.

**Schmidt B.** - Zur Entwicklung des deutschen Seefischversandes. – 1 Tab., Dtsch. Fischwirt., II, 22, 470–471. Berlin (1935). **b - 2113**

Hauptbeförderungsmittel für Seefische; Hauptversandrichtungen derselben; Entwicklung des deutschen Seefischversandes in den letzten Jahren; Beteiligung der Ostsee- und Nordseehäfen am Fischversand Deutschlands.

**Sigmann M. A.** - Le Transport de la marée en wagon isothermique. – VII Congr. Int. Aquicult. & Pêche, Paris (1931), Communications, III, 144–148. Orléans (1935). **b - 2114**

Le congrès international de 1931 a fourni l'occasion de confronter les résultats obtenus en France avec ceux réalisés dans d'autres régions et de poursuivre de nouveaux progrès dans l'application du froid au transport des produits de la mer. I. Transport de la marée en glace. II. Les remplaçants éventuels de la glace dans la pêche maritime.

**Triggs Ch. W.** - Distribution. – 8 figs., Fish. Gaz., Ann. Rev. Numb., 100–104. New York (1935). **b - 2115**

Different examples of transport illustrated.

**An.** - Das Mindestpreisabkommen verbindlich! – Tab., Dtsch. Fisch.-Rundschau, 22, 509. Bremerhaven (1935). **b - 2116**

Nach einigen Einführungsworten wird der Wortlaut der verbindlich gewordenen Anordnung Nr. 5 der Hauptvereinigung der Deutschen Fischwirtschaft betreffend Mindestverkaufspreise im Seefischgrosshandel vom 8. Oktober 1935 gegeben.

**An.** - Die Reichsbahn wirbt für ihren Seefischverkehr. – Dtsch. Fischwirt., II, 33, 641–642. Berlin (1935). **b - 2117**

Bericht über einen von der Reichsbahn über ihre Leistungen für Seefischverteilung und -verkehr gemachten Film.

**An.** - Can Living Salt-Water Fish Be Sold At Inland Markets? - 2 phot., Fish. Gaz., LII, 7, 11. New York (1935). **b - 2118**

Description of an interesting method introduced and applied in Norway for the transportation and preservation of living salt–water fish, the so–called "Vivo Method", whose main principle is that water in the fish tanks is cleansed and renewed by the aid of air in almost the same manner as the blood is cleansed by air in the lungs of human beings.

## INDUSTRIA ET COMMERCIUM FRUCTUUM PISCATUS DIVERSIS REGIONIBUS

### *Aegyptus.*

**Abou–Samra Abd–El–Galil Ibrahim.** - Rapport sur les Pêcheries d'Egypte en 1932. – Tabl., diagr., 1 fig., Direct. Rech. des Pêch., 1–117. Le Caire (1935). **b - 2119**

Liste sur les poissons du Nil, enregistrés dans les eaux égyptiennes selon Boulenger. I. Considérations générales: Statistiques et organisations des Marchés aux poissons. Commerce extérieur de l'Egypte. II. Lacs. III. Pêches maritimes. Pêche côtière, chalutiers, sardines, coup d'œil sur la pêche maritime, éponges. IV. Pêcheries de l'Intérieur. V. Recherches et application.

**Steuer A.** - The Fishery Grounds Near Alexandria. I. Preliminary Report. – 4 figs., 2 charts., Fish. Research Direct., Notes & Mem., 8, 1–16. Cairo (1935). **b - 2120**

Results of a floristical and faunistical survey of the coast near Alexandria, Egypt, made during summer and autumn 1933 with the intention to determine the distribution of the most common and perennial forms surviving in summer time. Diagnosis of the sample of plankton and benthos collected, followed by General Remarks in which author emphasizes the small size of specimens caught and the relative poverty of plant and animal species near Alexandria and makes a comparison between his own results and those obtained by other investigators (Le Danois, Sella, Paget) and between the annual curves of the plankton of Rovigno d'Istria and Alexandria.

### *Americae Provinciae Foederatae.*

**Bell F. T.** - Fishery Fact–Finding. A Function of the United States Bureau of Fisheries. – 1 photo. Fish. Gaz., Ann. Rev. Numb., 71 & 73. New York (1935). **b - 2121**

The scope of the fact–finding activity is to lay a sound foundation of fact for the promotion, development and conservation of the fishing industry and the fishery resources.

**Fiedler R. H.** - Fishery Industries of the United States, 1934. – Num. tables., U. S. Dpt. Comm., Bur. Fish., Append. II, Rep. Comm. Fish., 1935, 76–330. Washington D. C. (1935) **b - 2122**

Summary of the activities of the Division of Fishery Industries as well as an annual review on fishery statistics of the United States. The 1st part concerns the collection and publication of fishery statistics, the conducting of market surveys, the prosecution of research on the technical problems of the industry, and the dissemination of authoritative and practical information to the fishery industries and the public. The information obtained from statistical surveys is published in part 2 of this report, which includes all the detailed statistical information that has become available since the issue of the previous report.

**Mann C. F. A.** - Pacific Northwest Fisheries Off to Good Start for '35. – Fish. Gaz., LII, 4, 10–13. New York (1935). b - 2123

Summary of the factors which affected the Pacific Northwest fishery during 1934 and on through 1935.

**Osborne (de) S. J.** - Opening of the Winter Fisheries off the Virginia Capes. – 3 phot., Fish. Gaz., LII, 12, 5 & 10. New York (1935). b - 2124

A short résumé of the great changes that the past five years have brought about in the fisheries of the coast down from New York to Florida, with especial reference to the winter fisheries.

**Peace H. L.** - Florida Fisheries Association Adopts Co–operative Marketing Plan. – Fish & Oyst. Rep., XVI, 12, 3 & 11. Tampa, Fla (1935). b - 2125

Brief account of a special meeting held at Orlando, October 17, 1935, in which the Florida Fisheries Association adopted a cooperative marketing plan which will assist the fish dealers of the State in marketing their product.

**Umali A. F.** - The Fishery Industries of Southwestern Samar. – 8 figs., 7 pl., 2 tabl., Philipp. Journ. Sc., LIV, 3, 365–392. Manila (1934). b - 2126

The condition and the relative importance of the fishing industry in each of the municipalities, from Gandara in the north to Basey in the south. Local names of Fishes. Fishing methods. Fish–preservation methods.

**Bureau of Commercial Fisheries** – The Commercial Fish Catch of California for the Years 1930–1934, Inclusive. – 19 figs., num. tables. Div. Fish & Game, Bur. Comm. Fish., Fish Bull. 44, 3–126. Sacramento, Ca. (1935). b - 2127

The articles published are contributed by members of the staff of the Bureau of Commercial Fisheries of the California Division of Fish and Game. W. L. Scofield: Fisheries statistics: achievements through flexibility. G. Conner: Modernizing commercial fisheries statistics. H. B. Nidever: Commercial fishing boat numbering system. G. K. Clark: Logs on California trawlers. H. C. Godsil: Locality records and the tuna fishery. Appendix: F. N. Clark: Common and scientific names of fishes, crustaceans and mollusks. Tables: Landings, 1930–1934, inclusive. Fresh fish importations.

**An.** - Aid for U. S. Fishing Industry. – Canad. Fisherm., XXII, 4, 13. Gardenvale, Que (1935). b - 2128

Appointment of a Fishery Advisory Committee for the Department of Commerce in order to increase consumption of fish, steps to be taken to restore a prosperous situation within the U. S. fishing industry.

**An.** - The Fishing Industry Ready to March On. The Fisheries' Year in Review. – 2 phot., Fish. Gaz., Ann. Rev. Numb., 8–9, 98 & 120. New York (1935). b - 2129

Summary of the condition of the American Fisheries in 1935, as they appear from the past issues of " Fishing Gazette ", which give an illuminating picture of Association activities and progress, contain details of activity of individual firms, of progress in vessel constructions and other items of interest for the fishing world.

**An.** - New England Fleet Activities in Review. – 2 phot., 4 tabl., Fish. Gaz., Ann. Rev. Numb., 42–43 & 105. New York (1935). b - 2130

Data on the condition of the fishing industry of New England during 1935, with special reference to fish landings, year's price ranges, the summary of catch, the mackerel season, the swordfishing season, and the receipt of fresh fish in Boston.

**An.** - The Past, Present and Future of Pacific Coast Fisheries. – 8 figs., 9 tabl., Fish. Gaz., Ann. Rev. Numb., 106–117. New York (1935). b - 2131

What is the Pacific Coast fishing industry? Trends in fishing vessels. Cannery improvements in 1934. Pack statistics. Handling the Pacific Coast fisheries output. Processing. Pacific halibut fishery. Canned fishery products. Miscellaneous canned fishery products. Canned clam and clam products. Canned shrimp. A new type of flooring in the canning industry.

**An.** - Fish and Sea Food Institute of the United States. – Fish. & Oyst. Rep., XVI, 4, 7. Tampa, Fla. (1935). b - 2132

Measures taken in order to promote a greater use of fish by the American people with especial regard to the functions of the recently formed Fish and Sea Food Institute of the United States in New York City, sponsored by the fish industry.

**An.** - Fisheries of the United States, 1933. – Fish & Oyst. Rep., XVI, 6, 5. Tampa, Fla. (1935). b - 2133

Summary of statistic data for 1933 which indicate an appreciable increase in both the volume and the value of the catch of fishery products in the United States and Alaska compared with the preceding year.

### *Anglia.*

**Gerike G.** - Der Londoner Fischmarkt Billingsgate. Wie ein deutscher Fischhändler ihn sieht und beurteilt. – Dtsch. Fischwirt., II, 24, 500–502. Berlin (1935). b - 2134

Umsatz, Organisation des Verkaufes, Entwicklung, Vereinigungen des Grossmarktes für Fisch in Billingsgate, London.

**An.** - Die schottische Fischerei 1934. – Tab. Fischmarkt, III, 4, 103–105. Cuxhaven (1935). b - 2135

Statistische Angaben an Hand der Veröffentlichung von dem Fishery Board of Scotland " Sea Fisheries, Statistical Tables, 1934 ", Edinburgh, 1935.

**An.** - Die Seefischerei von England und Wales im Jahre 1934. – Fischmarkt, III, 6, 158–159. Cuxhaven (1935). b - 2136

Statistische Angaben nach der vom englischen Ministerium für Landwirtschaft und Fischerei herausgegebenen Statistik: " Sea Fisheries Statistical Tables 1934 ", London 1935.

### *Australia.*

**Barbour W.** - Annual Report on the Fisheries of New South Wales for the Year 1934. – Tabl,, 12 pp., State Fish. Chief Secr. Dpt., Sydney (1935). b - 2137

Conferences regarding the fisheries. Fishery legislation. Convictions obtained during the year for breaches of the Fisheries Act and Regulations. Freshwater fisheries. Oyster fisheries. Imports and exports.

**Dakin W. J.** - Science and Sea Fisheries with special Reference to Australia. - 2 pls. o. t., 2 figs., Pap. & Proc. R. Soc. Tasmania 1934, 1–39, Hobart, Tasm. (1935). b - 2138

R. M. Johnston Memorial Lecture. Introductory remarks on the importance of cooperation between Science and Fishery. Methods of Fisheries Science: Biometrical methods. Studies of life histories. Plankton studies and the life history of the Australian Peneid prawns. The hatching and rearing of Marine Fish. Bibl.

**An.** - Australia Tackles Fish Trade Problems in Recent Probe. – Canad. Fisherm., XXII, 4, 12. Gardenvale, Que (1935). b - 2139

Formation of the Fisheries Advisory Board in Australia, and summary of the Board's final report, containing recommendations for improvement of fisheries condition.

## *Canadensis Regio*

**Bartz F.** - Die Seefischerei an den atlantischen Küsten Kanadas. – Fischmarkt, III, 5, 127–130. Cuxhaven (1935). b - 2140

Bedeutung der atlantischen kanadischen Küstenprovinzen; Gestaltung des Küstengebietes; Geschichte der Kanadischen Fischerei; die Wichtigkeit der Küstenfischerei; Erträge der kanadischen atlantischen Küstenfischerei; Verarbeitung der gefangenen Fische und Hummer; Gesamtwert der kanadischen Fischerei; statistische Angaben über die Fischausfuhr von Kanada.

**Inkster T. H.** - Northern Alberta Fisheries. – 2 figs., Canad. Fisherm., XXI, 12, 13. Gardenvale, Que (1934). b - 2141

Some hints on the development of Northern Alberta fisheries with special regard to the employing of airplanes for fish transportation.

**Lounsbury R. G.** - The British Fishery at Newfoundland, 1634–1763. – 2 maps, 298 pp., Yale Univ. Press, New Haven, Conn (1935). b - 2142

The physical environments of Newfoundland; the beginning of the fishery; the first western charter; the fishery under Cromwell and Charles II; the problem of regulation, 1660–1676; the collapse of charter regulation, 1676–1699; the menace of France and New England, 1660–1699; law and war, 1699–1713; civil government, 1729–1763, and the end of an era.

**Wallace F. W.** - Fishing Industry on the Upgrade. – Canad. Fisherm., XXII, 10, 11–12. Gardenvale, Que (1935). b - 2143

Report of the President of the Canadian Fisheries Association, to the Annual Meeting, Montreal, September 23rd, 1935 dealing with the increase in catch and marketed value of the Canadian fisheries during 1935, the action of the Ass. during the past year, and the national fish campaign.

**An.** - Fish Week First Established in Canada in 1915. – 3 figs., 1 pl. on frontisp., Canad. Fish. Manual, 1935, 23–24. Gardenvale, Que (1935). b - 2144

History of the foundation and considerations upon the usefulness of the Canadian Fish Week created for the purpose of calling public attention to fish as a food.

**An.** - Fisheries of British Columbia Had Good Year in 1934. – Canad. Fisherm., XXII, 3, 22–23. Gardenvale, Que (1935). b - 2145

Statistical statements on British Columbia fisheries in 1934, according to figures issued by the Vancouver Office of the Federal Department of Fisheries. Highest returns since 1930.

**An.** - Trade Barriers Affecting Fisheries Export. – Canad. Fisherm., XXII, 8, 10. Gardenvale. Que (1935). b - 2146

Restrictions introduced by the European countries which are the largest consumers of dried fish, and their effect upon the Nova Scotia fisheries.

**An.** - No Fish Depletion in B. C. – Canad. Fisherm., XXII, 12, 25. Gardenvale, Que (1935). b - 2147

Outline of the conditions in coast fishing industry of British Columbia, made on hand of an account of Major J. A. Motherweel, chief supervisor of the Department of Fisheries of B. C.

**An.** - Newfoundland and Her Fisheries. – Geogr. Rev., XXIV, 3, 487–488. New York (1934). b - 2148

Importance of the fisheries for the fortunes of Newfoundland. History of the development of the fisheries in Newfoundland. Some statistical statements.

## *Dania et Islandia*

**Fiskeridirektoratet** - Fiskeri–Beretning for Aaret 1934 (heri Fiskeristatistik fra Faerøerne). 89 pp., nombr., tabl., figs., graph. København (1935). b - 2149

I. Législation. II. Rendement de la pêche en 1934. III. Rapport sur la pêche en 1934 : pêche maritime, personnel et matériel, espèces de poisson, localités principales ; pêche d'eau douce. IV. Exportation, importation, industrie. V. Développement de la pêche : Législation, pisciculture, ports, travaux. VI. Recherches Scientifiques par la Station Biologique, par la Commission de la pêche et d'océanographie, par le Laboratoire. Suppl. Travaux accomplis.

**An.** - Die Fischerei Dänemarks. – Tab., Fischmarkt, III, 6, 157–158. Cuxhaven (1935). b - 2150

An Hand eines aus " Danish Foreign Office Journal " stammenden Aufsatzes sind einige Angaben über die dänische Fischerei, ihre Entstehung und Entwicklung, die Zahl der beteiligten Personen, die Fahrzeuge und die Fangerträge, die Fischereigebiete und die Anlandungen, gegeben.

**An.** - Die Fischerei Islands im Jahre 1934. – 2 Tab., Fischmarkt, III, 9, 237–238. Cuxhaven (1935). b - 2151

Kurzer Bericht der " Nordisk Havfiskeri Tidsskrift ", Heft 8, 1935 entnommen: Klippfischpreise, Verkauf von frischen Fischen, Erträge der Heringsfischerei, Ausfuhr von Heringstran, verarbeitete Heringe.

**An.** - Danish Fisheries and the Methods employed in Catching. – Fish. News, 26. Aberdeen (1935). b - 2152

**An.** - Danish Fisheries. – Nord. Havfisk Tidsskr., IX, 2, 7–9; 3, 5–11. København (1935). b - 2153

## *Gallia Coloniaeque.*

**Boury M.** - Chimie Marine Industrielle. – Rapp. Pr.–Verb. Cons. Expl. Scient. Méditerranée VIII, 145–162; IX (n. Sér.), 39–57. Paris (1934–1935). b - 2154

Armement et engins de pêche : Corrosion des tôles métalliques, peintures marines, désinfection des cales à poisson et des ateliers de mareyage, filets de pêche. II. Produits de la pêche : Composition du poisson, mollusques, altération du poisson. III. Conservation du poisson : par le froid, salage, séchage et fumage. Conserves en boîtes hermétiques. IV. Sous–produits de la pêche : farines et engrais de poisson, préparation, composition et propriétés des huiles d'animaux marins, transformations et usages industriels des huiles de poisson ; sous–produits divers. V. Algues marines. Bibl.

**Cochin J.** - Introduction à l'histoire des pêches maritimes de France. – 43 fig., tabl., Mém. Off. Pêches Marit. (Sér. Spéc.), 9: Manuel Pêches Marit. Franç., 1, 19–83. Paris (1935). **b - 2155**

La pêche aux temps préhistoriques et dans l'antiquité. Le hareng et les autres pêches du Moyen Age. La pêche à la baleine et aux autres cétacés. La grande pêche de la morue à Terre-Neuve, sur le Grand Banc, en Islande et dans la Mer du Nord. L'entrée du chalutier à vapeur. L'évolution de la pêche française. Concl. : « C'est pourtant en étudiant les lois dynamiques des Océans et les migrations des poissons, ainsi que la nature des fonds de pêche, qu'on pourra réellement venir en aide aux pêcheurs ».

**Le Danois Ed.** - Rapport sur les mesures réglementaires à prendre d'urgence pour remédier à la situation critique de l'industrie de la pêche due à l'appauvrissement des fonds. - Rev. Trav. Off. Pêches Marit., VIII, 1, 24–38 Paris (1935). **b - 2156**

Résumé historique de la question. Economie générale de la pêche. Résolutions du Conseil International pour l'Exploration de la Mer. Etat actuel de la réglementation française sur la pêche. Mesures réglementaires proposées en vue de rémedier à la crise actuelle de la pêche.

**Le Gall J.** - L'état actuel et l'avenir de l'industrie des pêches maritimes en Maroc. – Pêche Marit., Pêche Fluviale et Piscicult., XVII, 5–6. Paris (1934). **b - 2157**

**Le Gall J.** - L'état actuel de l'industrie des pêches maritimes ~~en France~~.– 4 fig., 1 carte, 1 tabl., Mém. Off. Pêches Marit. (Sér. Spéc.), 9 : Manuel Pêches Marit. Franç., 1, 87–95. Paris (1935). **b - 2158**

Statistiques concernant la production de la pêche française depuis 1913 jusqu'à 1933, la flotte de pêche pendant la même période, les quantités de poisson debarquées pendant l'année 1932 et enfin l'évolution récente de la flotte de pêche française, avec référence spéciale à la flotte côtière et à la flottille de grande pêche.

**Remy D.** - Organisation de la pêche en France. – 5 fig., Mém. Off. Pêches Marit. (Sér. Spéc.) 9 : Manuel Pêches Marit. Franç., 1, 96–115. Paris (1935). **b - 2159**

Inscription maritime, organisation, obligations et avantages consentis aux inscrits. Le service des pêches maritimes. L'enseignement maritime et commandement des navires de pêche: Programme et réglementation. Mutualité maritime. Les organisations professionnelles. Propagande pour la consommation du poisson. Constitution, rôle, laboratoires et travaux de l'Office des Pêches Maritimes.

**Office Scientifique et Technique des Pêches maritimes.** Manuel des pêches maritimes françaises. – Fig., nombr. tab., Mém. Off.Pêches Marit. (Sér. spéc.) 9, 1, 5–141 ; 10, 2, 5–199. Paris (1935). **b - 2160**

Sous la direction de M. Ed. Le Danois avec la collaboration de M. M. Beaugé, Belloc, Boury, Desbrosses, Fage, Lambert, Le Gall, Rémy et Schvinte de l'Office des Pêches Maritimes a été entreprise la publication de ce « Manuel » dont le but est de préciser quelle est la situation technique de l'industrie de pêche maritime française. Le « Manuel » comprendra trois fascicules. Le premier fascicule contient une « Introduction à l'histoire des pêches maritimes en France » par le Commandant Cochin (Iere Partie) et (IIème Partie). « L'état actuel de l'industrie des pêches maritimes en France » par J. Le Gall, « L'organisation de la pêche en France » par D. Rémy, et « Les croisières de recherches » par G. Belloc et J. Le Gall. Dans le deuxième fascicule ont été traités les différentes pêches et leurs engins: I. Le chalutage (G. Belloc et J. Le Gall) ; II. La pêche au filet dérivant (J. Le Gall) ; III. Les autres genres de pêches en mer : La pêche à la sardine (J. Le Gall), La pêche au thon (G. Belloc), La pêche aux crustacés (G. Belloc et J. Le Gall). La pêche aux lignes (J. Le Gall). IV. La pêche littorale (G. Belloc et J. Le Gall.). V. La grande pêche (Comm. Beaugé).

**An.** - Le mouvement océanographique et des Industries de la Pêche en France et à l'étranger. – Soc. Amis. Inst. Océanogr. Havre, XVII, 48, 5–6. Le Havre (1935). **b - 2161**

Les armements à la grande pêche. La campagne de pêche du hareng. Conserve de maquereau. Protection des poissons contre les jets d'huiles combustibles à la mer. Une pêche nouvelle.

## *Germania.*

**Eichelbaum E.** - Die Seefischerei. - Jahresber. Dtsch. Fisch. 1933, 5–130. Berlin (1934). **b - 2162**

**Eichelbaum E.** - Der Verlauf der Seefischerei im Jahre 1934. - 5 Tab., Dtsch. Fischwirt., II, 10, 165–169. Berlin (1935). **b - 2163**

Günstliche Entwicklung der wirtschaftlichen Lage im Jahre 1934. Angaben über das Gesamtergebnis und das der einzelnen Branchen der deutschen Seefischerei ; Einfuhr an Fischen und Fischwaren 1934 und 1933 ; Kurze Uebersicht über den Verlauf der Fischerei in den verschiedenen Seefischereibetrieben.

**Essipov V.** - La pêche maritime allemande en 1933. (En russe). - Za Rybn. Ind. Sev., 12, 44. Leningrad (1934). **b - 2164**

Données statistiques sur les captures faites par les bateaux de pêche allemands dans la Mer de Barents et dans la région de l'Ile de l'Ours (Medvezhij) concernant les espèces particulières du poisson pêché.

**Gerike G.** - Berlin als Frischherings-Import-Platz. - Dtsch. Fischwirt., II, 16, 364–365. Berlin (1935). **b - 2165**

Entstehung und Entwicklung des Berliner direkten Heringsimports : günstige Wirkung Berlins auf die Entwicklung des deutschen Dampferheringsmarktes.

**Groening A. M.** - Fischwirtschaft im Reichsnährstand. – Mitt. Dtsch. Seef.-Ver., XLIX, 4, 134–135. Berlin (1934). **b - 2166**

Bericht über die Gründung und die Ziele der an der Hauptabteilung IV des Reichnährstandes gegründeten Sonderabteilung Fischwirtschaft, in welcher die gesamte Dampfer- und Hochseefischerei, die Fischindustrie, die grosse Heringsfischerei, sowie der Gross- und Kleinhandel in Fischen und Fischwaren zusammengefasst worden sind.

**Groening A. M.** - Vermittlungsstelle für den Absatz der Herings-, Sprott- und Spitzenfänge der See- und Küstenfischerei. – Dtsch. Fischwirt. II, 46, 858. Berlin (1935). **b - 2167**

Kommentar der Verordnung Nr. 6 der Hauptvereinigung der Deutschen Fischwirtschaft (S. : H. 45, d. J.) betreffend die Regelung des Absatzes für Hering und Sprott und Spitzenfänge.

**Günther H.** - Was braucht die deutsche Fischwirtschaft? – Dtsch. Fisch-Rundschau, 25, 576. Bremerhaven (1935). **b - 2168**

Sicherstellung der deutschen Fischereiflotte durch Neubauten um den Bedarf der Fischindustrie decken zu können.

**Kaden P.** - Der Fachhandel ist die Voraussetzung für einen gesicherten Fischabsatz. – Dtsch. Fischwirt., II, 14, 331–332, Berlin (1935). **b - 2169**

Beitrag zu den Gefahren des blossen Winter–Saisonhandels.

**Mertens** - Die Fischerei im Stettiner Haff mit Nebengewässern. – Dtsch. Fischwirt., II, 4, 54–57. Berlin (1935). **b - 2170**

Voraussetzungen und gegenwärtige Lage, Bedeutung des Stettiner Haffes für die Fischerei Pommerns; seine einheitliche Lage zwischen dem Süsswassergebiet der Oder und dem Salzwassergebiet der Ostsee. Besonderes Gepräge der niedrigen Tierwelt des Haffs infolge des Salzgehaltes des Wassers. Reichtum des Haffs und seiner Nebengewässer an Fischen; wichtigste Wirtschaftsfische; die verschiedenen Arten von Fanggeräten; Regelung der Fischerei im Haffe; Eigenart der Nutzung der Gewässer durch eine Vielheit von Fischern; wirtschaftliche Lage der Fischer.

**Muehleisen E.** - Cuxhavens Seefischwirtschaft im Dienste des Winterhilfswerkes des Deutschen Volkes. – Fischmarkt, II, 4, 103–104. Cuxhaven (1934). **b - 2171**

Auswirkungen der Verwertung des Gedanken, die Seefischwirtschaft beschäftigt zu erhalten und dem Deutschen Volke ein aus eigener Quelle erfasstes hochwertiges Nahrungsmittel zuführen zu können. Die Tätigkeit in dieser Hinsicht der in Cuxhaven beheimateten " Nordsee ".

**Ministerium für Ernährung und Landwirtschaft.** - Die deutsche Seefischerei im Mai 1935. – 1 Tab., Fischmarkt, III, 8, 217. Cuxhaven (1935). **b - 2172**

Statistische Angaben über die Fischdampferanlandungen an den einzelnen deutschen Fischmärkten.

**Ministerium für Ernährung und Landwirtschaft.** - Die deutsche Seefischerei im Jahre 1934. – 2 Tab., Fischmarkt, III, 9, 228–230. Cuxhaven (1935). **b - 2173**

Statistische Daten über den Gesamtertrag, die Fischflotte, die Einfuhr an frischen und zubereiteten Seefischen, die Ausfuhr an frischen Fischen, die Verbrauchsmenge an Seefischen, die Dampferfischerei, die Fangergiebigkeit einzelner Gebiete in Berechnung auf den Fangtag und die Fangzeit, die Zusammensetzung des Gesamtfanges der Fischdampfer nach den einzelnen Fischarten, die Veränderung in der Zusammensetzung der Fänge, die Küstenfischerei und die Fischmärkte Deutschlands im Jahre 1934.

**Seefischmarkt A. G.** - Die Leistungen des Fischmarktes Wesermünde-Bremerhaven für die Seefischbelieferung des Winterhilfswerkes 1934–1935. – 2 Tab., Dtsch. Fischwirt., II, 18, 394–396. Berlin (1935). **b - 2174**

Ausführungen über die Bedeutung der Aktion der Belieferung des Winterhilfswerkes 1934–35 mit aus frischen Seefischen hergestellten Filets, von statistischen Angaben ergänzt.

**S.** - Umstellung auch des Berliner Fisch- und Fischwaren-Einzelhandels auf die neue Organisation. – Dtsch. Fischwirt., II, 45, 841–843. Berlin (1935). **b - 2175**

Kurzer Bericht über die am 4. November 1935 stattgefundene Kundgebung des Berliner Fischhandels mit besonderer Berücksichtigung der Ausführungen des Leiters der Unterfachgruppe Fische.

**An.** - Die Ergebnisse der Haffischerei. – 1 Tab., Dtsch. Fisch.-Rundschau, 26, 600–601. Bremerhaven (1935). **b - 2176**

Statistische Angaben über die Erträge der deutschen Fischerei in den Haffen der gesamten deutschen Ostseeküste in 1933 und 1934.

**An.** - Der Aufstieg der deutschen Fischwirtschaft. – Dtsch. Fischwirt., II, 12, 202–204; 14, 329–330 & 332-334. Berlin (1935). **b - 2177**

Entstehung und Entwicklung der modernen deutschen Fischwirtschaft; Einfluss der Verbreitung der Eisenbahnen auf die Entfaltung des Fischhandels, mit besonderer Berücksichtigung der Einführung von Kühlwagen; Verwertung von Massenfängen; Fortschritte der Technik des Fangbetrietes; Absatz-und Preiskrisen; Entstehung und Entwicklung der Fischereihäfen; Besonderer Charakter der Gründung von Cuxhaven; zurückgebliebene Entwicklung der Küsten- und Binnenfischerei; Emporblühung des deutschen Fischhandels auf den von der Fischerei gesicherten Grundlagen.

**An.** - Die Organisation der Fischwirtschaft. Zur Neuorganisation des Fischeinzelhandels. – Dtsch. Fischwirt., II, 37, 711–712. Berlin (1935). **b - 2178**

Die Umwandlung der grossen berufsständigen Organisation des Lebensmitteleinzelhandels in eine Neu-Organisation: Wirtschaftsgruppe Einzelhandel, Fachgruppe Nahrungs- und Genussmittel.

**An.** - Der Fischeinzelhandel erhält seine Marschrichtung. – Dtsch. Fischwirt., II, 39, 738–739. Berlin (1935). **b - 2179**

Zusammenfassung der grundlegenden Ausführungen auf der ersten Tagung der Fachuntergruppe Fische der Wirtschaftsgruppe Einzelhandel, die am 23. September 1935 stattgefunden hat, und in welcher die Richtlinien der neuen Gesamtorganisation des Fischhandels gegeben wurden.

**An.** - Reichsnährstand und Fischerei. – Dtsch. Fischwirt., II, 39, 742–744. Berlin (1935). **b - 2180**

An Hand eines längeren Vortrages von Regierungsrat Finzel im " Jahresbericht über die deutsche Fischerei 1934 ", wird ein Ueberblick über die Hauptvereinigung der Deutschen Fischwirtschaft, ihren Sinn und ihre Zwecke gegeben, mit besonderer Berücksichtigung der tatsächlichen Eingliederung aller Zweige der Fischwirtschaft im Reichsnährstande.

## *Italia Coloniaeque.*

**Brunelli G.** - La Pesca. – 1 tav., f. t., Progr. dell'Agric. Ital. in Reg. Fasc., 327–333, Roma (1935). **b - 2181**

Si rileva l'attività svolta dal Governo dopo l'avvento del Fascismo, in materia di disciplinamento e organizzazione della pesca. Riferiti alcuni dati tecnici sulla produttività del mare si allega l'elenco dei provvedimenti legislativi e ministeriali che testimoniano la complessità delle provvidenze riguardanti i più svariati campi della produzione e del commercio dei prodotti pescherecci.

**Brunelli G. & Bini G.** - Ricerche comparative sulle pesche profonde di diversi mari italiani. – 4 fig., 1. tav. Boll. Pesca, Piscicolt., e Idrobiol., X, 6, 733–744. Roma (1934). **b - 2182**

Vengono illustrate comparativamente le pesche profonde (al di là della isobata di m. 200) eseguite nel Tirreno (nella zona prospiciente il golfo della Spezia e intorno all'isola di Montecristo), nello Jonio (al largo di Gallipoli) e nell'Adriatico (tra Pelagosa e Lagosta), nella zona dove vivono comuni lo scampo (*Nephrops norvegicus*) ed il melù (*Gadus poutassou*).

**Conte F.** - Le tonnare di Favignana. – Ann. Merceol. Sicil., IX, 2, 199–207. Messina (1933). **b - 2183**

Dopo un breve cenno illustrativo sulla pesca del tonno nelle tonnare di Favignana, il cui sistema è comune a tutte le altre tonnare, sono riportati i dati statistici della pesca del tonno in tonnara, per ciascuna campagna dal 1925 al 1929.

**Giacchetti A.** - Il problema della pesca verso la pratica risoluzione. – 112 pp. Tip. S. I. T. A., Ancona (1934). **b - 2184**

Programma da svolgersi per un miglioramento dell'industria peschereccia: organizzare la vendita, disciplinarla, migliorare l'industria della pesca, diffondere il credito peschereccio, con lo scopo di rendere possibile un maggior consumo nel popolo italiano.

**Lo Presti S.** - La pesca e i pescatori nel Golfo di Catania (continua) - 3 tav., Folklore Ital., IX, 1/4, 81–112. Catania (1934). **b - 2185**

L'A. ha raccolto le tradizioni dei pescatori del Golfo di Catania. In questa prima parte si occupa dei diversi tipi di barche, degli ordegni da pesca, dei nomi dialettali e volgari dei pesci e della loro abbondanza nei diversi mesi nel Golfo di Catania.

**Mancini L.** - Elementi di un portolano di pesca della costa ligure. – 4 tav. f. t., Boll. Pesca, Piscicolt. e Idrobiol., Suppl. Mem. Scient., IX, serie B, 5–327. Roma (1934). **b - 2186**

Caratteri di pescosità della costa del Golfo Ligure, dal confine francese fino a Viareggio. Il litorale costiero è stato così suddiviso in nove zone in cui si tien conto: *a*) della configurazione della costa in confronto dello sviluppo della platea continentale prospiciente; *b*) della frequenza dei porti o degli approdi favorevoli alla permanenza dei pescherecci ed alla spedizione del prodotto: *c*) della circoscrizione marittima.

**Mengoni A.** - La pesca nella Laguna di Orbetello. – 9 Fig., Vie d'Italia, 1, 27–32. Milano (1935). **b - 2187**

Alcuni aspetti dell'industria peschereccia di Orbetello. Vari sistemi di pesca.

**Morandini G.** - Cenni di geografia generale dei mari con particolare riguardo al Mediterraneo. – 4 Fig., Boll. Pesca, Piscicolt. e Idrobiol., X, 4, 432–461. Roma (1934). **b - 2188**

Sono esaminate le condizioni grafiche del Mediterraneo Romano, per illustrare alcuni dei principali problemi geografici che possono interessare dal punto di vista della pesca italiana e del suo rapido progresso nel dopo guerra, dovuto sopratutto all'introduzione di una tecnica nuova di pesca, la pesca meccanica e la lampara.

**Petrillo P.** - La pesca nel Golfo del Carnaro. - 248 pp. La Vedetta d'Italia. Fiume (1934). **b - 2189**

**An.** - L'industria peschereccia nella provincia di Venezia. - Le Tre Venezie, XI, 158. Venezia (1935). **b - 2190**

La pesca del mare è fatta quasi esclusivamente con naviglio chioggiotto. Dati statistici su di esso. Principali qualità di pesce che affluiscono al mercato di Venezia.

## *Japonia.*

**Elie M.** - L'industrie de la pêche au Japon. – Géogr., Terre-Air-Mer, LXIV, 6, 414–419. Paris (1935). **b - 2191**

Importance toujours grandissante de la question de la pêche dans le développement du Japon moderne. La surabondance du poisson et les principales variétés de poissons et d'algues comestibles. La compensation par les produits de pêche de l'insuffisance des produits agricoles du sol nippon. Convention conclue avec la Russie pour la concession de droits de pêche dans les eaux sibériennes. Divers tableaux font ressortir l'importance des moyens employés et des résultats obtenus par les Japonais dans l'industrie de la pêche.

**Schepers H.** - Japans Seefischerei. Eine wirtschaftsgeographische Zusammenfassung. – Abb., Taf. u. Kart., 228 S., Hrsg. Japan-Inst. in Berlin. F. Hirt, Breslau (1935). **b - 2192**

Der grosse Aufschwung der japanischen Seefischerei während der letzten Jahre als wichtiger Bestandteil der japanischen Volksnahrung. Der Fischreichtum im japanischen Teile des pazifischen Ozeans.

Die Bedeutung des Fischereirechtes an der russischen Küste des japanischen Meeres für Japan.

**Schnakenbeck W.** - Die Seefischerei Japans. – 2 Tab., Fischmarkt, III, 9, 232–237. Cuxhaven (1935). **b - 2193**

Statistische Angaben an Hand eines fischwirtschaftlichen Sonderheftes von " The Japan Times & Mail " vom Februar, 1935 und eines vom Japan-Institut in Berlin ausgegebenen Buches von H. Scheppers, " Japans Seefischerei " (Verl. F. Hirto, Berlin). Es wird ein vielseitiger Einblick in die Verhältnisse der Seefischerei Japans gegeben mit besonderer Berücksichtigung seiner wichtigsten Nutzfische, des Einflusses der Fischerei auf Religion, Kunst und Geistleben des japanischen Volkes, der gesetzlichen Regelung der japanischen Fischerei, der Fangzeuge und -geräte und der volkswirtschaftlichen Bedeutung der Seefischerei Japans.

## *Norvegia.*

**Fiskeridirektøren** - Beretninger om torskefisket (utenom Lofoten) og silde-, makrell-, bank- og kveitefisket samt selfangsten i 1934. – Tav., Årsber.v. Norg. Fisk. 1934, IV, 1–147. Bergen (1935). **b - 2194**

Rapporti e tavole statistiche sulla pesca delle diverse regioni della Norvegia, riguardanti battelli ed equipaggio, rendimento della pesca in kg., preparazione dei prodotti e valore delle vendite. Rapporto sulla pesca di *Hippoglossus* e *Gadus* nell'Isola degli Orsi, nella Groenlandia occidentale e nell'Islanda; la pesca di *Clupea* nell'Islanda e quella della *Balaena*.

**Fiskeridirektøren** - Lofotfisket 1935. – Tav. fig., Årsber. v. Norg. Fisk. 1935, 2, 1–103 Bergen (1935). **b - 2195**

Amministrazione e personale. Pescatori, navi ed utensili. Disposizioni sanitarie. Commercio dei pesci. Condizioni meteorologiche e pesca. La pesca e il suo rendimento. Ricerche biologiche ed oceanografiche.

**Fiskeridirektøren** - Norges Fiskerier 1933. – Tabl., Norg. Off. Statistikk, IX, 68, 1–18. Oslo (1935). **b - 2196**

Tableaux contenant une revue statistique pour périodes étendues des pêches, personnel et matériel, produits de pêches, données plus détaillées sur les pêches principales (morue, hareng, esprot, maquereau) consommation domestique de poisson par les pêcheurs.

**S.-e.** - Zur Lage der Seefischerei in Norwegen. – Dtsch. Fischwirt., II, 8, 138–139. Berlin (1935). **b - 2197**

Beitrag zu den norwegisch-deutschen Fischhandelsbeziehungen an Hand des norwegischen Berichtes über die Fischerei im Jahre 1934.

**An.** - Schwere Beeinträchtigung der deutschen Fischerei durch neue norwegische Fischereigrenze. – 2 Kart., Dtsch. Fisch.-Rundschau, 19, 431–435. Bremerhaven (1935). **b - 2198**

Kommentar des von dem Storthing gemachten Beschlusses vom 24. 6. 1935 und der königlichen Resolution vom 12. 7. 1935, welche eine neue norwegische Fischereigrenze einführen und den jahrelangen Meinungsverschiedenheiten Norwegens und den vor der norwegischen Küste Fischerei treibenden Ländern eine entscheidende Wendung geben. Die Feststellung einer neuen Fischereigrenze bedeutet eine weitere Beeinträchtigung dieser Fischerei.

**An.** - Norwegen sucht seine neuen Fischereigrenzen zu rechtfertigen. – 2 Kart., Dtsch. Fischwirt., II, 39, 739–742. Berlin (1935). **b - 2199**

Zusammenfassende Wiedergabe der Stellungsnahme der norwegischen Fischereipresse zu der neuen Regelung der norwegischen Fischereigrenzen, welche das schwerste Bedenken von britischer und deutscher Seite hervorgerufen hat.

## *Palestina.*

**Bahous E. & Massad H. M.** - Fisheries of Palestine. – Tabl., Ann. Rep. Dpt. Agric. & Forests for the Year ending March 1934, 151–165. Jerusalem (1935). **b - 2200**

I. Northern District: Importation of Fish. Gear (tackle), dynamites. Turtle. Immature Fish. Sardines. Lake Fisheries. Appendices: Total landing of sea fish. Details of Fish caught and first selling price at different places, boats and men engaged in fishing during 1933. II. Southern District: Estimate of production during 1933. *Sardina* sp. Fishing grounds. *Scomber* spp. Trawl Fishery. Dynamiting. Appendices: Details of fish caught at Jaffa and other places, total landing of sea fish. Period during which different kinds of fish visited the Southern coastal waters. Number of boats and Fishermen employed during 1933.

**Hornell J.** - Report on the Fisheries of Palestine. – Num. tabl., 14 figs., viii + 106 pp. Crown Agents for the Colonies. London (1935). **b - 2201**

This work may in certain respects be considered to complete another work on the fishery and aquatic fauna of Syria (A. Gruvel: Les Etats de Syrie, Paris, 1931). Results of researches as to the sea fishery, lake fishery and fishing industry. Projects of modernization of fishing methods and construction of ports. In an appendix are given a list of fish names in Latin, English and Arabic as well as a great many statistic tables.

## *U. R. S. S.*

**Averintzev S.** - L'industrie de pêche du Nord Soviétique et les recherches scientifiques sur la pêche. (En russe). – 1 fig., Za Rybn. Ind. Sev., 12, 21–23. Leningrad (1934). **b - 2202**

**Ivantchinov V. G.** - L'embouchure du fleuve Obj et son importance pour l'industrie de la pêche du bassin de l'Obj et de l'Irtych. (En russe). – Izd. Obsko–Tazovsk., Naoutchn. Rybn.–Choz. Stantz. VNIRO. 1–31. Toboljsk (1934). **b - 2203**

**Kolberg F.** - Russlands Fischerei und Fischindustrie. Ihre Bedeutung für die Fischversorgung Europas. Zugleich ein Beispiel für eine verfehlte Organisation der Fischwirtschaft. – Dtsch. Fischwirt., I, 10, 159–162. Berlin (1934). **b - 2204**

Schilderung des ungeheuren Reichtums an Fischen und Fischereimöglichkeiten, die dem weiten russischen Reiche gegeben sind. Gruppierung der einzelnen russischen Fischereigebiete nach einheitlichen geographischen Merkmalen und ihre Beschreibung. Die Eindringung russischer Fischwaren auf die europäischen Märkte. Die Organisation der russischen Fischwirtschaft in ihrem verfehlten Aufbau und ihrer ganzen Unzulänglichkeit. Die russische Fischwirtschaft als ein Beispiel dafür, wie eine fischwirtschaftliche Planung nicht aufgezogen werden kann.

**Sevrounov A.** - Sur quelques défauts dans le travail pour l'approvisionnement en poisson. (En russe). – Sov. Sev., 3, 26–29. Moskva (1934). **b - 2205**

Sur les erreurs faites dans l'élaboration des programmes et des plans de l'organisation de l'approvisionnement en poisson et de sa conservation dans les régions de l'Extrême Nord de l'URSS.

**Voronov N.** - Economie de pêche de la Région du Nord. (En russe). – Za Rybn. Ind. Sev., 1, 54–57. Leningrad (1933). **b - 2206**

Description de l'industrie de la pêche et de ses conditions dans la partie orientale de la Mer Blanche, dans la partie orientale de la Mer de Barentz et dans la Mer de Kara.

**Zhilinskij A. A.** - Les industries de la pêche de la Mer Blanche et de l'Océan Arctique. (En russe). – 38 fig., 1 carte, 108 pp. Oghiz–Lensanbizd. Leningrad (1933). **b - 2207**

**An.** - Exploration de la Baie de Kara au point de vue de l'industrie de la pêche. (En russe). – Bull. Arct. Inst., 6/7, 267. Leningrad (1934). **b - 2208**

Résumé des résultats des observations faites dans la Baie de Kara sous les auspices de l'Institut Océanographique de l'Etat dans le but de déterminer les espèces commerciales de poisson que l'on y trouve. On a pu établir quelles sont les espèces de poisson qui puissent constituer la base de l'industrie de la pêche dans la région considérée.

## *Varia.*

**Borcea I.** - Quelques considérations pour la mise en valeur des pêcheries marines du littoral roumain. – Ann. Scient. Univ. Jassy, XIX, 1/4, 391–397. Jassy (1934). **b - 2209**

Nécessité d'établir des installations frigorifères sur les côtes roumaines et d'organiser la fabrication de conserves de poisson. Défauts de l'Administration des pêcheries. Données sommaires sur certaines espèces marines qui ont un rôle économique important: Clupéïdés, *Engraulis encrasicholus*, *Rhombus* (*Bothus*) *maeoticus*, *Scomber scomber*, *Pelamys sarda*, *Trachurus trachurus*.

**Bottemanne J.** - De Indische zeevisscherij. – Kolon. Tijdschr. 24, 444–458. (?). (1935). **b - 2210**

**Gibelli G.** - Tecnica das Pescas Maritimas. Condirações sobre a industrializaçao da pesca no Brasil. – 47 pp. Escolas Prof. Salesianas. Niteroi (1935). **b - 2211**

A pesca através dos tempos e sua influencia na civilizaçâo do homen. Acenos sobre a pesca no exterior. A industria da pesca no Brasil.

**Marchand J. M.** - (Preface by Von Bonde C.). The South African Marine Fishes of Commercial and Angling Importance. – 115 figs., Dpt. Comm. & Ind. Fish. & Mar. Biol. Surv. Div., Fish. Bull. 2, 6–160. Pretoria (1935). **b - 2212**

This publication is, primarily, an attempt to provide a handbook for information regarding the habits, habitat, identification, and occurrence of the more common commercial fishes occurring in South African Seas. List of common and scientific names. Glossary of anatomical and descriptive terms. Illustrations and descriptions of Elasmobranchii. Teleostei. Appendix: Explanatory notes on names and types of fishing gear, (*b*) the meaning and use of scientific nomenclature.

**Miezis V.** - Bulletin statistique des pêches maritimes de Lettonie (en lett. av. introd. & sous-titres franç.). Année 1932–1933. – 29 tab., Publ. Fish. Labor., XIII, 3–77. Riga (1934–35). **b - 2213**

Données statistiques sur les pêches maritimes de la Lettonie, sur leur valeur, sur les espèces capturées, sur le nombre des pêcheurs et la flotte de pêche, sur la pêche de quelques espèces de poisson en particulier, phoques, saumons, truites de mer, flets, turbot, morues, harengs, ésprots, éperlans, etc.

**Peric I.** - Ribastvo u Dalmaciji. – Zbornik za naz. život i običaje juznil slavena, XXIX, 2, 119–147. Zagreb (1934). **b - 2214**

**Sveriges Officiella Statistik** - Fiske år 1933. – Sv. Off. Stat. Stockholm (1935). **b - 2215**

**F. W.** - Fischhandel und Fischverbrauch in Oesterreich. – Dtsch. Fisch.-Rundschau, 21, 482–483. Bremerhaven (1935). **b - 2216**

Besondere Berücksichtigung der Beteiligung Deutschlands.

**M. J.** - De Zeevisscherij van Java en Madoera. Oost en West, 36, 7–9. (?) (1935). **b - 2217**

**An.** - Die Entwicklung der polnischen Seefischerei. – Dtsch. Fisch.-Rundschau, 4, 78. Bremerhaven (1935). **b - 2218**

Ausführungen von polnischer Seite, welche zeigen, dass man in Polen trotz vieler Schwierigkeiten gewillt ist, das Ziel einer Autonomie auf dem Gebiete der Seefischerei zu erreichen.

**An.** - Die Fischerei der Grönländer. – Fischmarkt, III, 11, 300–303. Cuxhaven (1935). **b - 2219**

Ausführungen über die Fischerei der Grönländer, welche wesentlich einem Artikel entnommen sind, den Dr. Paul M. Hansen in der Zeitschrift " Dansk Saltvandsfiskeri " (1935, S. 180–201) veröffentlicht hat.

## SUBPRODUCTI FRUCTUUM PISCATIONIS

### *Residua et reiectanea – Collae – Farina ichthyca.*

**Anderson A. W., Harrison R. W. & Pottinger S. R.** - Studies on Drying Cod and Haddock Waste. – 7 figs., 9 tabl., U. S. Dpt. Comm., Bur. Fish., Invest. Rep. 32, II, 1–41. Washington D. C. (1935). **b - 2220**

During a series of investigations on the effect of manufacture on the nutritive value of ground-fish meals, carried on by the U. S. Bureau of Fisheries, data were obtained which demonstrated that the wet process of manufacture caused a material decrease in the utility of these meals for feeding purposes. The present report contains a study of methods of overcoming the difficulty of drying this type of waste without the removal of the glue–forming proteins and an investigation of the relative efficiencies of wet and dry process of fish–meal manufacture.

**Croker R. S.** - Increased Utilization of Fish Livers. – Calif. Fish & Game, XXI, 3, 263. Sacramento (1935). **b - 2221**

Attention is drawn to the relatively high value of A and D vitamins in the livers of the white sea–bass, barracauda, swordfish, totuava, mackerel, bonito and tuna.

**Grimaud M.** - Quelques remarques au sujet de la réglementation concernant le commerce des farines de poissons. – VII Congr. Int. Aquicult. & Pêche Paris (1931), Communications. III, 157–159. Impr. du Loiret. Orléans (1935). **b - 2222**

Nécessité d'une dénomination précise des faunes de poissons. Teneurs maxima en matières grasses et en sel marin. Pourcentage de sable.

**Harrison R. W.** - Some Developments in Markets for By–Products during the past Year. – 5 figs., 7 tabl., Fish. Gaz., Ann. Rev. Numb., 92–96. New York (1935). **b - 2223**

Account of some particularly interesting developments with respect to the by–products of the United States commercial fisheries; statistical statements concerning the values of by–products by States, the products of menhaden industry, the fresh–water mussel shell products, the miscellaneous by–products, the marine pearl–shell products, the oyster–shell products, in 1934.

**Harrison R. W., Pottinger S. R., Lee C. F. & Anderson A. W.** - Studies on the Utilization of Swordfish Livers. – 3 figs., 4 tabl., U. S. Dpt. Comm., Bur. Fish., I, 28, Invest. Rep. 1–10. Washington D. C. (1935). **b - 2224**

The swordfish industry. Composition of swordfish livers. Extraction of oil from swordfish livers. Some physical and chemical properties of swordfish–liver–oil. Vitamin potency of sword–fish liver oil. Importance of swordfish as a source of vitamins A and D.

**Harrison R. W., Pottinger S. R. & Anderson A. W.** - Effect of Manufacture on the Quality of Nonoily Fish Meals. – U. S. Dpt. Comm., Bur. Fish., Invest. Rep., II, 30, 1–30. Washington D. C. (1935). **b - 2225**

Trend and problems of fish–meal research. Factors involved in the manufacture of nonoily fish meals: proteins and vitamins. Relation of method of manufacture to quality of fish–meal protein and vitamin value: effect on vitamin G. Manufacture of nonoily fish meal by the dry process.

**Johnston W. W.** - How to Manufacture Fish Glue from Skins and Heads. – 1 table. Canad. Fisherm., XXII, 12, 29–32. (Atlant. Fish. Exp. Stat. Note n. 45). Gardenvale, Que. (1935). **b - 2226**

**Jouvalov P. E.** - Sur la qualité de la farine de poisson de l'Extrême–Orient. (En russe). – 2 tabl., Rybn. Choz. Daljn. Vostoka (Econ. Pêche Extr.–Orient), 1/2, 150–161. Moskva–Khabarovsk (1934). **b - 2227**

Résultats des analyses de la farine de poisson de différente origine fabriquée dans l'Extrême–Orient, avec référence spéciale aux matières étrangères que contient souvent ce produit.

**Kharjkov I. I.** - Approvisionnement automatique en matières premières des fabriques pour l'utilisation des déchets de poisson. (En russe). – 2 fig., 2 tabl., Rybn. Choz. Daljn. Vost. (Econ.

Pêche Extr.–Orient), 1/2, 161–165. Moskva–Khabarovsk (1934). **b - 2228**

1. Rationalisation des travaux de chargement des différentes parties de l'installation pour le traitement des déchets de *Sardinella melanosticta*. 2. Rationalisation des usines pour la fabrication d'engrais avec les produits de la chasse aux animaux marins de l'Extrême–Orient russe.

**Oya Takeo & Kimura Minoru** - Effects of Degree and Duration of Heating on the Digestibility of Powdered Fish Meal. (In Jap., Engl. Rés.). – 2 fig., 3 tabl., Bull. Jap. Soc. Scient. Fish., IV, 2, 95–97. Tokyo (1935). **b - 2229**

On the basis of the experiments described here and expressed graphically it is shown that the digestibility of the powdered fish muscles diminishes with increasing degree and duration of heating. The difference of digestibility of various fish meals appears to be due to degree and duration of heating in the manufacturing procedures.

**An.** - Fish Meal in Germany. – Canad. Fisherm., XXII, 9, 18. Gardenvale, Que. (1935). **b - 2230**

The work of chemical experts in this country which opens new prospects for the fishery trade.

**An.** - Die Fischmehlanlage an Bord eines isländischen Fischdampfers hat sich gut bewährt. – Dtsch. Fisch.-Rundschau, 20, 456–457. Bremerhaven (1935). **b - 2231**

Schilderung einer interessanten Neuerung im Fischdampferbetrieb, welche es gestattet, an Bord der Dampfer Fischmehl herzustellen.

## *Olea animalium marinorum.*

**Belopoljskij M. P. & Maximov O. B.** - Les huiles de baleine. (En russe). – 7 tabl., Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.–Orient), 1/2, 118–125. Moskva–Khabarovsk (1934). **b - 2232**

Quelques données sur la composition physico–chimique des huiles de *Balaena mysticetus* L., *B. glacialis*, *Rhachianectes glaucus*, *Balaenoptera musculus*, *Megaptera nodosa*, *Balaenoptera physalus* Lin., *B. borealis* (Less.), *Physeter macrocephalus:* applications industrielles des huiles de baleine.

**Belopoljskij M. P. & Maximov O. B.** - L'huile de *Hyperoodon rostratus*. (En russe). – 2 tabl., Rybn. Choz. Daljn. Vost., XIII, 1, 101–103. Khabarovsk (1935). **b - 2233**

Description des propriétés physico–chimiques de l'huile extraite de la tête et de la peau de *H. rostratus*. Quelques considérations sur son emploi.

**Brocklesby H. N. & Bailey B. E.** - The Production of High Grade Feeding Oil from Pilchards and Similar Fish. – 2 figs., Biol. Bd. Canada, Bull. XLVI, 1–8, Ottawa (1935). **b - 2234**

Outline of a few of the properties of feeding oils from pilchard and similar fish and of the vitamins they contain, as well as some suggestions concerned with means whereby a high grade oil may be produced.

**Cox Warren M. Jr. & Roos J. A.** - On the alleged Toxicity of Cod Liver Oil. – 1 fig., Bull. John Hopkins Hosp., LIV, 6, 430–439. (?) (1934). **b - 2235**

Discussion on the results obtained which do not show any pathological lesion.

**Kharjkov I. I.** - Sur la rationalisation du procès technologique de l'extraction de l'huile de la graisse des animaux marins. (En russe). – 4 tabl., 2 schémas. Rybn. Choz. Daljn. Vost. (Econ. Pêche Extr.–Orient), 1/2, 126–130. Moskva–Khabarovsk (1934). **b - 2236**

Description du procès technologique de l'extraction de l'huile liquide de la graisse sous–cutanée solide des animaux marins. Possibilités de perfectionnement des systèmes d'extraction actuels. Caractéristique du produit obtenu avec l'ancien et le nouveau système d'extraction.

**Klem A.** - Studies in the Biochemistry of Whale Oils. – Tabl., 10 figs., Hvalråd. Skr., Scient. Res. Mar. Biol. Research, 11, 49–100. Oslo (1935). **b - 2237**

The chemical composition of Marine *Crustacea* serving as food. The milk fat of the blue whale. Whale oils and their variations according to the degree of fattening. Discussion of some factors which influence the composition of animal oils. The liver fat of the blue whale and its content of vitamins A and D.

**Manning J. R.** - Domestic Fish Oils now Available. A Source of Vitamins for Human Nutrition. – Fish & Oyst. Rep., XVI, 4, 4. Tampa, Fla. (1935). **b - 2238**

Brief account of the astonishing development of the United States fish oil industry which followed the discovery of vitamin potency of the liver oil from a number of Pacific fishes. Selected list of publications of the U. S. Bureau of Fisheries dealing with fish oil for human nutrition.

**Pérard J.** - Sur l'emploi de l'huile de thon (*Thynnus pelamys*) comme huile siccative. – VII Congr. Int. Agricult. & Pêche Paris (1931), Communications, III, 160–162. Impr. du Loiret. Orléans (1935). **b - 2239**

Caractères analytiques de l'huile de thon marque S. F. I. M. ayant servi aux expériences. Technique de la fabrication du sable « à l'huile » pour noyeaux de fonderie. Nature du siccatif.

**Pottinger S. R., Lee C. F., Tolle C. D. & Harrison R. W.** - Chemical and Physical Properties of Haddock–Liver Oil and Its Vitamin Content. – 6 figs., 7 tabl., U. S. Dpt. Comm., Bur. Fish., Invest. Rep. I, 27, 1–16. Washington D. C. (1935). **b - 2240**

Results of an investigation carried out in order to study the possibilities of the greater utilization of haddock–livers in the preparation of medicinal fish–liver oils, and showing that pure haddock–liver oil will not in all cases meet the U. S. Pharmacopoeia requirements. For this reason it would appear that haddock–liver oil, especially that from Georges Bank fish, should be blended with oil from cod livers if it is to be sold as medicinal.

**Quadri S.** - L'olio di tonno nella terapia infantile. – Atti R. Accad. Fisiocr. Siena (Sez. Med.–Fis.), II, 4, 168–169. Siena (1934). **b - 2241**

L'olio di tonno palesa un'azione ricostituente a favore del trofismo generale e della crasi sanguigna, dovuta al suo alto contenuto in fattori vitaminici e alla totale assimilabilità delle sostanze altamente multiple in esso contenute.

**Schmidt E.** - Waltran und Fettbilanz. – Dtsch. Fisch.-Rundschau, 7, 148–149. Bremerhaven (1935). **b - 2242**

An Hand von Veröffentlichungen des Instituts für Konjunkturforschung über die Rolle des Waltrans in der Versorgung Deutschlands an Fettstoffen, wird die Versorgung Deutschlands mit Fettstoffen dargestellt um seine Abhängigkeit vom Auslande aufzuzeigen.

**Tveraaen I.** - Chemical Analysis of Samples of Blue Whale Oils. – Tabl., 2 fig., Hvalråd. Skr., Scient. Res. Mar. Biol. Research, 11, 5–48. Oslo (1935). b - 2243

The material. Methods of chemical testing. Constants of various whale oils expressed in tables. The vacuum distillation of methyl esters of the fatty acids. New method of examination in vacuum distillation of whale oils.

**An.** - Undersøkelser av damperiprøver av torskelevertran 1933. – Tab., Årsber. v. Norg. Fisk. 1933 (Stat. Fiskeriforsøksstasjons virks. 1933), 3, 44–61. Bergen (1935). b - 2244

Samples from the Norwegian coast, from Iceland and from Norwegian cod liver oil arrived in Ålesund. Results of analysis made.

**An.** - Fish Liver Oils Coming in to Their Own. – Canad. Fisherm., XXII, 2, 15. Gardenvale, Que. (1935). b - 2245

Brief account of new achievements in the field of the discovery of valuable fish oils, others than cod liver oil, and of methods of extracting them which are of enormous practical and financial value to the fishermen.

**An.** - Value of Fish Oils. – Canad. Fisherm., XXII, 7, 18. Gardenvale, Que. (1935). b - 2246

Brief account of two of the reports read at the Annual Convention of the Canadian Chemical Association in Kingston, Ont., June 4–6, 1935, dealing with the « Use of Canadian Pilchard Oil in Paints and Varnishes » and the « Estimation of Vitamin A in Fish Liver Oils and Concentrates ».

# CONSERVATIO

## *Bacteriologia – Hygiene – Alteratio.*

**Beatty S. A. & Gibbons N. E.** - An Investigation into the Main Factors Contributing to the Spoilage of Fresh Fish. – 4 diagrs., 1 table. Canad. Fisherm., XXII, 9, 9–11. Gardenvale, Que. (1935). b - 2247

Brief account of the first period of investigations carried on by the Atlantic Fisheries Experimental Station at Halifax N. S. including the whole period from the taking of the fish to the passage of the retailer's hands. The chemical test is expressed in graphs and tables.

**Boury M.** - L'altération du poisson. – 2 fig., 16 tabl., 5 tabl. h. t., Rev. Trav., Off. Scient. Pêches Marit., VIII, 3, 31, 282–334. Paris (1935). b - 2248

Le présent travail a un objet essentiellement pratique: il consiste dans l'examen critique des méthodes susceptibles de renseigner le plus exactement possible sur l'état de fraîcheur ou le degré d'altération du poisson de mer. I. Examen organoleptique. II. Méthodes biologiques. III. Méthodes physiques. IV. Méthodes chimiques. V. Conclusions générales. Le procédé le plus sûr consiste dans le dosage des formes volatiles de l'azote.

**Hilker C.** - Zur Frischerhaltung der Seefische. – Dtsch. Fischwirt., 42, 791–792. Berlin (1935). b - 2249

Besprechung der verschiedenen Verbesserungsmethoden in der Frischerhaltung von Seefischen, welche in Deutschland und in anderen Ländern versucht und geprüft worden sind.

**Laurinat K.** - Objektive Massstäbe für die Qualitätsbeurteilung. – 2 Tab., Dtsch. Fischwirt., 46, 859–861. Berlin (1935). b - 2250

Nach einigen Ausführungen über die Grundlagen der Beurteilung der Qualität Fischwaren, bespricht Vf. als Beispiel die Untersuchung von Krabbenkonserven auf ihren Erhaltungszustand, für dessen Grenzwert ein prozentualer Ammoniakgehalt ermittelt worden ist.

**Plank R.** - Gemeinschaftsarbeit bei der Frischhaltung von Fischen. – Dtsch. Fischwirt., 48, 890–892. Berlin (1935).
( — ) Dtsch. Fisch.-Rundschau, 24, 551–554. Bremerhaven (1935). b - 2251

Bericht erstattet auf der technischen Kältetagung gehalten am Eröffnungstage der Aussenstelle des Kältetechnischen Instituts (Karlsruhe) im Institut für Seefischerei in Wesermünde. Vf. betont die Notwendigkeit eines engen Zusammenarbeitens zwischen Wissenschaft und Praxis um die Hebung des Fischkonsums in Deutschland auf der Grundlage einer bestmöglichen Qualität zu verwirklichen.

**Struve K.** - Ueber die Lagerfähigkeit von Kristall-Süssstoff-Lösung. – Dtsch. Fisch.-Rundschau, 22, 510. Bremerhaven (1935). b - 2252

Kurzer Bericht über die vom Institut für Seefischerei Wesermünde veranstalteten Versuche mit gesüssten Essigen und Aufgüssen zur Prüfung ihres Widerstandes gegenüber normalen Lagerungsbedingungen und ihrer Zersetzung infolge Einwirkung des starken Essigs.

**Tetsumoto Sogo** - Sterilising Action of Some Seasonings on Pathogeneic *Bacteria Bac. typhosus* and *Vib. cholerae*. (In Jap., Engl. Rés.). – 2 tabl., Bull. Jap. Soc. Scient. Fish. III, 5, 273–274. Tokyo (1935). b - 2253

The present paper deals with the bactericidal activity of the principal constituents of ginger, zingerone and shogaol on *Bac. typhosus* and *Vib. cholerae*, and that of the juices of « wasabi » (*Eutrema wasabi japonica*) and ginger on those *Bacteria* inoculated on the fresh flesh of tuna.

**Sch.** - Untersuchungen über die hauptsächlichen Einflüsse auf die Verderbnis von Fischfleisch. – 1 Tab., Fischmarkt, 9, 239–243. Cuxhaven (1935). b - 2254

Bericht über die in dieser Richtung in Atlantic Fisheries Experimental Station in Halifax durchgeführten Versuche, von denen in dem Progress Report n. 15 vom Biological Board of Canada berichtet ist. Im Zusammenhang mit den kanadischen Untersuchungen schildert Vf. ganz kurz die in Deutschland durch K. Schlie vorgenommenen Untersuchungen über die Totenstarre bei Fischen und ihren Zusammenhang mit der Zersetzung. (S. « Fischmarkt, 11, 289, 1934 »).

**An.** - Keep Fish Fresh Forty Days without Freezing. – 3 figs., Canad. Fisherm., XXII, 2, 11. Gardenvale, Que. (1935). **b - 2255**

Description of an interesting French process of fish preservation known as the « B. F. 3 (Bellefon–Folliot) process, the operation of which in brief consists in storing the fish immediately after they are caught and cleaned in special steel boxes which are water and air tight, having a joint of plastic rubber.

**An.** - Eine aussichtsreiche Methode zur Qualitätsforderung bei Seefischen – 3 Abb., Dtsch. Fisch.-Rundschau, 1, 2–4. Bremerhaven (1935). **b - 2256**

Beschreibung einer französischen Fischfrischhaltmethode, welche sich ohne Schwierigkeit an Bord der Fischdampfer einführen lässt, des sogenannten Verfahrens BF (nach den Erfindern Bellefon et Folliot).

**An.** - Vorrichtung zur Untersuchung von Fischen auf Würmer. – 2 Abb., Dtsch. Fisch.-Rundschau, 1, 4–5. Bremerhaven (1935). **b - 2257**

Beschreibung einer patentierten Vorrichtung zur Untersuchung von Fischfleisch auf Schmarotzern und anderen Fremdkörpern, welche in einer Durchleuchtung der Fische besteht.

## *Pisces infumati, salati et exsiccati.*

**Alfonsi Tranquilli B.** - Le conserve di pesce. – Ills., 112 pp., Manuali Diana. Ed. Vallecchi, Firenze (1934). **b - 2258**

Dopo un breve cenno storico sui sistemi di conservazione degli alimenti ed un'analisi delle cause che producono la putrefazione delle sostanze organiche, l'A. passa alla trattazione dei metodi di conservazione del pesce basati su processo Appert, e di quelli che si fondano sulla salagione, l'essiccamento, l'affumicazione e l'ammarinatura. Riporta alcune tabelle relative all'importazione ed esportazione in Italia del pesce conservato.

**Altazin E.** - Séchage, salage, fumage du poisson. – VII Congr. Int. Aquicult. & Pêche, Paris (1931), Communications, III, 127–136. Impr. du Loiret. Orléans (1935). **b - 2259**

Histoire, méthodes actuelles, emballage, avantages de ces procédés.

**Bachkirov K. A.** - Produits de pêche pour les gourmets. (En russe). (Esprots en salaison et en marinade). – 3 tabl., Rybn. Choz. Daljn. Vostoka (Econ. Pêche Extr.-Orient), 1/2, 106–111. Moskva–Khabarovsk (1934). **b - 2260**

Description des meilleurs systèmes de fabrication de salaisons et de marinades d'esprots.

**Bähr O.** - Die Wirkung des Vorsalzens von Heringen auf das fertige Erzeugnis. – 1 Tab., Dtsch. Fischwirt., II, 8, 136–137. Berlin (1935). **b - 2261**

Es werden die Vorteile erörtert, die eine Angabe der Salzmenge, die zum Vorsalzen von Heringen an Bord der Fischdampfer verwendet wird, bringt. Weiter wird angeregt, diese bisher unterbliebene Angabe in der Auktion zu machen. Für Räucherwaren Brat=, Koch= und Kaltmarinaden wird der Einfluss des Vorsalzens beschrieben (Vf.).

**Berg A.** - Ein Vorschlag für die Verarbeitung von Flundern zu Räucherzwecken. – Dtsch. Fischwirt., II, 35, 676–677. Berlin (1935). **b - 2262**

Nötige Vorbereitung des Fisches um eine möglichst saubere und appetitliche Ware zu erhalten.

**Chen T. P.** - Preliminary Experiments on the Drying of Cuttlefish. (In Jap., Engl. Abstr.) – 6 figs., 10 tabl., Bull. Chekiang Prov. Fish. Exper. Stat., I, 3, 1–12. Tinghai. (1935). **b - 2263**

In the 1935 season, the Provincial Fisheries Experimental Station undertook the drying of cuttlefish on a commercial scale. During the drying process careful records were taken of the cost and quality of the raw material, loss in the process of preparation, yield, drying ration, etc. These records and observations, as well as some brief experiments and chemical analysis made during the drying process, are presented in this paper.

**Gibbons N. G.** - The Control of the Reddening of Salted Fish. – Canad. Fisherm., XXII, 8, 27–28. Gardenvale, Que. (1935). **b - 2264**

Atlantic Fisheries Experimental Station Note n. 40. Brief account of the results of investigations conducted at the Station on the causes of the reddening of salted fish, followed by some recommendations regarding the cleanliness in the plant and of all utensils, and the chemical methods for preventing reddening. Author claims that it should be looked upon as an infectious disease and treated accordingly.

**Kawakami Tasae** - Depression of Freezing Point of Fish Muscle during Drying. – 4 tabl., 4 fig., Bull. Jap. Soc. Scient. Fish., IV, 1, 1–5. Tokyo (1935). **b - 2265**

On the basis of four experiments described here and expressed in equations and formulas it is shown that the depression becomes greater the longer the muscle is stored berore drying.

**Kawakami Tasae** - Dried State of Fresh and Stored Fish Compared. – 1 tabl., 1 fig., Bull. Jap. Soc. Scient. Fish., IV, 3, 203–205. Tokyo (1935). **b - 2266**

On a formula given by Prof. M. Tauti calculating the weight of dried fish relative to its initial weight and the humidity of the surrounding air. Confirming experiments.

**Laurinat K.** - Der „Räucherfisch" als Qualitätsprodukt der deutschen Fischindustrie. – Dtsch. Fischwirt., 2, 19–20. Berlin (1935). **b - 2267**

Steigende Kurve des Räucherfischabsatzes in Deutschland. Gute Zukunftvoraussage zur Entwicklung der Räucherfisch–Industrie.

**Linton E. P. & Cooper D. L. B.** - The Smoke Curing of Fresh Filets. – Canad. Fisherm., XXII, 2, 14–15. Gardenvale, Que. (1935). **b - 2268**

Description of a ready method for smoking fish filets in two to three hours. Account of the results of experiments confined to the determination of the effects of variations in the following smoke–house condition: velocity of moving smoke, humidity, temperature, density and type of smoke, effect of type and amount of drying, variations in the methods of brining, and age and conditions of fish.

**Macpherson N. L.** - The Dried Codfish Industry. – Rep. Newfoundl. Fish. Research Labor., II, 3, 50-51 ; 4, 5–57. Newfoundland (1935). **b - 2269**

Summary of a publication on the results of investigations of the dried codfish industry, which contains a description of the development of the different methods of preserving the large supplies of cod according to the exigencies of local conditions and the discussion of the technical aspects of the dried codfish industry. Difficulties of the industry. Methods.

**Megow F.** - Technische Fingerzeige für die deutsche Heringssalzerei. – 1 Tab., Dtsch. Fischwirt., 19, 409–411; 20, 431. Berlin (1935). **b - 2270**

Anweisungen um die Qualität der deutschen Salzheringe noch zu verbessern und diese den beliebten Schottenheeringen ebenbürtig zu machen. Kritische Ausführungen und Verbesserungsvorschläge.

**Nagata Yonesaku** - Effect of Visceral Juice on the Salted Herring. (Jap. Text, Engl. Rés.). – 2 tabl., 2 fig., Bull. Jap. Soc. Scient. Fish., IV, 1, 21–23. Tokyo (1935). **b - 2271**

Experiments undertaken with *Clupea pallasii* C. & V. show that fish salted with all the viscera intact does not resist so well to putrefaction as those from which the viscera have been taken out.

**Tjötta L. L.** - Das Vorräuchern bei Herstellung von Vollkonserven. – Dtsch. Fisch.-Rundschau, 9, 199. Bremerhaven (1935). **b - 2272**

Mitteilungen aus dem Institut für Seefischerei Wesermünde. Kurzer Bericht über Versuche zur Verbesserung des Räucherprozesses, mit besonderer Berücksichtigung eines neuen in Norwegen konstruierten Typus von automatischen Räucheröfen.

**An.** - Smoked Herring Marketing. – Canad. Fisherm., XXII, 3, 17. Gardenvale, Que. (1935). **b - 2273**

Measures taken by the Grand Manan dealers in order to organize and to stabilize the smoked herring industry, all of which is practically located at Grand Manan, Charlotte County, N. B.

**An.** - Eine lehrreiche Statistik der deutschen Salzheringswirtschaft. – Dtsch. Fischwirt., II, 9, 153–154. Berlin (1935). **b - 2274**

Statistische Angaben, welche der für das Jahr 1934 von der Deutschen Heringshandel-Gesellschaft m. b. H., Bremen, herausgegebenen Statistik, entnommen sind, und die auch einen interessanten Einblick in die geschichtliche Entwicklung der grossen Heringsfischerei seit dem Jahre 1906 gestatten.

## *Refrigeratio fructuum piscatus eiusque technica.*

**Amasaki Tamotu & Hasebe Akasi.** - Heat Admitted into a Cold Storage Room by its Door-opening. (In Jap. Engl. Rés.). – 4 tabl., 5 fig., Bull. Jap. Soc. Scient. Fish., IV, 3, 198–202. Tokyo (1935). **b - 2275**

On an empirical formula by H. S. Whitesel (Refrig. Eng., XXVII, 5, 240–247, 1934) to estimate the heat load of the door–opening for a household refrigerator cabinet. Different cases of application and modifications.

**Bähr O.** - Das Solegefrieren von Heringen. – Dtsch. Fisch.-Rundschau, 3, 58-59. Bremerhaven (1935). **b - 2276**

An Hand von zwei der englischen Zeitschrift « Fishing News », n. 1129 und 1133 entnommenen Artikeln, bespricht Vf. die Versuche mit der Solegefrierung von Heringen, welche an Bord der englischen Dampfer unternommen worden sind.

**Beard H. R.** - Value of Scientific Research to the Fisheries. – 3 phot., Fish. Gaz., LII, 12, 6–7. New York (1935). **b - 2277**

New quick–freeze system developed. Combination of scientific and practical knowledge. Greatest problem: the improvement of fresh, frozen and smoked fish.

**Birdseye C.** - Quick-Freezing Fillets. – 1 phot., Fish. Gaz., LII, 11, 7. New York (1935). **b - 2278**

Account of the introduction, development and progress of quick–freezing of fish fillets from 1924 to nowadays.

**Cannicci G.** - Refrigerazione e congelazione del pesce. – Num. fig., 130 pp. Manuali Diana. Ed. Vallecchi, Firenze (1935). **b - 2279**

L'A. descrive la particolare applicazione per la conservazione del pesce, dei comuni metodi di refrigerazione, di congelazione rapida ed in atmosfera raffreddata. La diffusione del pesce congelato sui mercati italiani. Magazzini, trasporti e banchi di vendita. Il ghiaccio secco e la sua applicazione nell'industria ittica.

**Gardner Poole** - Quick Freezing. – 3 fig., 2 tabl., Fish. Gaz., Ann. R. Numb., 84–85, 87 & 105. New York (1935). **b - 2280**

Review of recent progress in the quick industrial refrigeration applied to the fisheries, with special reference to early studies in « Quick–Freezing », the commercial applications realized, the various methods of quick freezing, the new chemical findings, the packaging and transportation problems; the article is completed by two statistical tables, containing data on cold storage holdings of cured fish in the United States, by species and months, and by geographical sections and month, during 1934.

**Heiss R.** - Einrichtungen und Aufgaben der Aussenstelle des Kältetechnischen Instituts in Wesermünde. – 1 Fig., Dtsch. Fisch. Rundschau, 24, 554–557. Bremerhaven (1933). **b - 2281**

Disposition und Beschaffenheit der Kühlanlagen im Institut zu Wesermünde, welche es gestatten, alle Untersuchungen unter möglichst eindeutigen und planmässig variierbaren Bedingungen zu veranstalten um alle Phasen des Gefrierverfahrens und der Veränderungen der beim Lagern gefrorenen Fische zu studieren.

**Hjorth-Hansen S.** - Opbevaring av håbrand på kjølelager. – 8 Tab., 2 fig., Årsber. v. Norg. Fisk. 1933 (Stat. Fiskeriførsøksstasjons virks. 1933). 3, 27–35. Bergen (1935). **b - 2282**

Lagerung bei + 1° C bis + 2° C und bei 0° C. Einfluss der Luft. Analyse eines gefrorenen Fisches.

**Mc Kerlie J.** - Refrigeration in the Store. – 4 figs., Canad. Fish. Manual, 1935, 56–58. Gardenvale, Que. (1935). **b - 2283**

Method of preservation of fish in the stores with special reference to the use of ice, the mechanical refrigeration, the humidity and the costs of preservation.

**Okada Mituyo** - Circulation of Air in a Cold–Storage Warehouse. II. Reproduction in Models of the Observed Original Circulations. – 9 figs., 5 tabl., 2 pls., Journ. Imp. Fish. Inst., XXX, 4, 227–251. Tôkyô (1935). **b - 2284**

Distribution of temperature and the velocity of steady circulations of air produced by natural convection in several parts of a cold–storage warehouse were observed and reproduced in a reduced scale in models. It has been shown that the laws of natural convections in the steady state are utilizable in the comparison between the original and the modelled circulations, and that the circulation in the chamber, where the air freezing of fishes is going on, can also bee treated as in quasi–stationary state.

**Okuno Hirosi** - On the Ice Crystal Formed in the Tissues of Frozen Fish. (In Jap., Engl. Rés.). – 1 graph, 2 tabl., Bull. Jap. Soc. Scient. Fish., IV, 4, 259–260. Tokyo (1935). **b - 2285**

The results reported here were obtained by the A. when observing the size distributions of ice crystals and the process of their growth during cold storage by the microphotography in preparation for further experiments.

**Ono Toyoki** - Chemical Changes of Fish Body-fats in Cold Storage. (In Jap., Engl. Rés.). - 2 figs., 8 tabl., Bull. Jap. Soc. Scient. Fish., III, 5, 255–262. Tokyo (1935). b - 2286

The A. has examined whether the chemical changes of fish fat in cold storage is caused by oxidation or by lipase, and at the same time he has made observations on the lipase action at lower temperature.

**Petit G.** - Sur la congélation du poisson à bord. - VII Congr. Int. Aquicult. & Pêche, Paris 1931, Communications, III, 151–156. Impr. du Loiret. Orléans (1935). b - 2287

Aperçu général de la question. Première application, avantages de la congélation en général, congélation à terre, congélation à bord, possibilité d'adapter aux chalutiers les méthodes industrielles de congélation telles qu'elles sont réalisées à terre, en dotant les chalutiers d'installations frigorifiques.

**Snok-Fischer A.** - Hat gefrorener Fisch eine Zukunft ? - Dtsch. Fisch.-Rundschau, 24, 558–560. Bremerhaven (1935). b - 2288

Antwort auf die Ausführungen der Schriftleitung von der « Deutschen Fischerei-Rundschau » unter dem gleichen Titel in Heft 21, mit besonderer Berücksichtigung einer Marktregelung des Seefischumsatzes, welche eine weitgehende Anwendung der Tiefkühlung in Betracht nimmt.

**Young G.** - The World's Largest Fish Cold Storage. - 2 phot., Canad. Fisherm., XXII, 11, 25 & 28. Gardenvale. Que. (1935). b - 2289

Organization and equipment of the largest fish freezing plant in the world built on Prince Rupert Island, Canada; illustration of the treatment of salmon, halibut, of the preparation of Haliver oil (from halibut livers), of the sharp freezer, the smooking of fish, the ice plant and the fleet of Canadian Fish and Cold Storage Co.

**H.-B.** - Die Kühlhaltung als Schlüssel zur Qualitätsfrage. - Dtsch. Fischwirt., II, 48, 889–890. Berlin (1935). b - 2290

Bericht über die Eröffnung in Wesermünde im Institut für Seefischerei von einer Aussenstelle des Kältetechnischen Instituts Karlsruhe; zusammenfassende Wiedergabe einiger abgehaltenen Referate, insbesondere Berichte von Taschinger über « Kühltransport von Fischen », von R. Heiss über die « Einrichtung und Aufgaben der Aussenstelle », von Dr. Merres über « Grundsätzliches zum Lebensmittelrecht » und von Dr. Schwarz über den « Oberflächenkeimgehalt der Seefische ».

**An.** - Lagring av fersk storsild i kjølerum. - 2 Tab., Årsber. v. Norg. Fisk. 1933 (Stat. Fiskeriforsøksstasjons virks). 3, 24–26. Bergen (1935). b - 2291

Résultats des expériences exécutées aux — 1°, — 11° et — 12° C.

**An.** - Refrigerated Fish Counters and Display Cases. - 12 figs., Canad. Fish. Manual, 1935; 63–69. Gardenvale, Que. (1935). b - 2292

A discussion of the principles employed and a description of the most efficient types of refrigerated fish counters and display cases.

**An.** - Crack-Proof Glaze for Frozen Fish. - Canad. Fisherm., XXII, 4, 15. Gardenvale, Que. (1935). b - 2293

Information on developments of an improved glaze for frozen fish which has recently been accomplished at the Pacific Fisheries Experimental Station at Prince Rupert, B. C., and which stops storage dehydration and prevents decoloration.

**An.** - Glänzendes Urteil über neue Kühlmethode. - 1 Fig., Dtsch. Fisch.-Rundschau, 4, 73–75, Bremerhaven (1935). b - 2294

In vorliegender Notiz wird der im Heft 1, 1935 von derselben Zeitschrift veröffentlichte Bericht über eine neue Kühlmethode für Fische, das Verfahren B. F., ergänzt.

**An.** - Versuche mit Trockeneiskühlung auf deutschen Fischdampfern. - Dtsch. Fisch.-Rundschau, 23, 528. Bremerhaven (1935). b - 2295

Auf Grund dieser und anderer Ergebnisse ist man zu der Ansicht gekommen, dass, nach einigen Verbesserungen der technischen Kühleinrichtungen, die Trockeneiskühlung auf Fischdampfern anderen Methoden überlegen ist.

**An.** - Einsetzung eines technischen Beirates aus Fischwirtschaftlern für die Kühlforschung. - Dtsch. Fisch.-Rundschau, 24, 557–558. Bremerhaven (1935). b - 2296

Bericht über die Einsetzung eines kleinen technischen Beirats aus dem Fischgewerbe in seinen drei Zweigen, Reederei, Handel und Industrie zur Zusammenarbeit mit dem Institut für Seefischerei in Wesermünde auf dem Gebiete der Frischhaltung der Fische.

## *De fructibus piscatus vario modo confectis.*

**Beatty S. A.** - The Handling of Shucked Scallops. - Canad. Fisherm., XXII, 10, 31–32. Gardenvale, Que. (1935). b - 2297

Before discussing the possible faults in handling of shucked scallops author calls the attention to some of their characteristics, whose value may be overlooked, and which are very important on account of fresh scallops' preservation and storage.

**Bonde (von) C. & Marchand J. M.** - Studies in the Canning of Cape Crawfish, Kreef or Spiny Lobster, *Jasus lalandii* (Milne Edwards) Ortmann. - Figs., 14 tabl., Dpt. Comm. & Ind., Fish. & Mar. Biol. Surv. Div., Invest. Report 5, 5–43. Pretoria (1935). b - 2298

Résumé of the canning process. Explanation of hydrogen ion concentration of pH. Technical discussion. Chemical analysis of crawfish meat. Blue meat. Canning of leg meat. Suggestions and recommendations. Appendices: Gauge pressure and temperature; Analysis of samples of Japanese crab, Canadian lobster and Cape crawfish. Bibl.

**Cooper D. LeB.** - Devising Canning Methods for Fisheries Products. - Canad. Fisherm., XXII, 5, 22 & 31. Gardenvale, Que. (1935). b - 2299

The elaboration of the method is the consequence of a research concerned with sterilization technique at the Fisheries Experimental Station in Halifax. The present article contains a description of an apparatus not hitherto published and which allows to sterilize the canned product without spoiling its appearance and taste.

**Gericke G.** - Erfahrungen über neue Wege im Dorschabsatz. - Dtsch. Fischwirt., II, 40, 760–761. Berlin (1935). b - 2300

Technische und statistische Ausführungen über die Entwicklung und Organisation der Ostdorschfilets-Herstellung ; Nachweis der guten Möglichkeiten dieser Industrie an Hand eines Auszuges aus einem Bericht über die Lage der Dorschfilets-Industrie in Dänemark, welcher auch den Wortlaut der am 1. Oktober 1935 in Kraft getretenen Verordnung der dänischen Regierung über die Ausfuhr von Fischfilet enthält.

**Hess E.** - Canning Scallops. – Canad. Fisherm., XXII, 3, 9. Gardenvale, Que. (1935). **b - 2301**

Fisheries Experimental Station (Atlantic), Note n. 31. Some additional information to a previous report (Progress Report nº 1, Fisheries Experimental Station, Note nº 1, January 1931) on preliminary experiments on canning of scallop muscles.

**Hess E.** - Canning Mackerel Fillets. Products Offer Worthwhile Industry. - 8 figs. Canad. Fisherm., XXII, 5, 13–15. Gardenvale, Que. (1935). **b - 2302**

Illustration of methods of filleting, cutting and packing mackerel in the can, with special reference to cannery equipment, raw material, and labour.

**Hjorth-Hansen S.** - Undersøkelser angående kokning och behandling av ferske reker. – 18 tab., Årsber. v. Norg. Fisk. 1933. (Stat. Fiskeriforsøksstasjons virks. 1933), 3, 5–23. Bergen (1935). **b - 2303**

Allgemeine Untersuchungen. Salzgehalt. Lagerungsversuche. Andere Faktoren, welche auf die Haltbarkeit und die Qualität während der Lagerung Einfluss haben.

**Hurequin L.** - Les conserves des Crabes japonais. – Pêche Marit., Pêche Fluviale et Piscicult., XVII, 448–450. Paris (1934). **b - 2304**

**Jarvis N. D. & Griffiths F. P.** - Home Canning of Fish. – Fish & Oyst. Rep., XVI, 5, 6–7 & 11. Tampa, Fla. (1935). **b - 2305**

General directions for home canning of fish. Recommended procedures for canning different fishes.

**Saito Kazuo** - The Content of S $H_2$ of the Exportable and Non–Exportable Canned Crabs. – 1 table. Bull. Jap. Soc. Scient. Fish., II, 6, 285–286. Tokyo (1934). **b - 2306**

Report on expert's classifications, exportable or non-exportable, according to Almy's method of determination of $SH_2$ in the juice from canned crabs.

**Struve K.** - Ueber die Verwendung von Wasserstoffsuperoxyd bei Kochmarinaden. – Dtsch. Fisch.-Rundschau, 2, 33 ; 5, 100–101. Bremerhaven (1935). **b - 2307**

Kritische Betrachtungen über die im Jahre 1934 im Fachblatt "Die Fischwaren- und Feinkost-Industrie" erschienenen Abhandlungen und Sprechsaalantworten in Bezug auf die Notwendigkeit des Wasserstoffsuperoxyds bei Kochmarinaden.

**Struve K.** - Sardinen-Konservierung in Kalifornien. Wertvolle Anregungen für unsere Fischindustrie. – Dtsch. Fisch.-Rundschau, 5, 102–104; 6, 126–129. Bremerhaven (1935). **b - 2308**

Ungekürzte Wiedergabe eines längeren Artikels von R. S. Croker (California State Fisheries Laboratory), der sich eingehend mit der in Kalifornia üblichen Sardinen-Konservierung befasst. Es werden Einzelheiten und Abweichungen des Arbeitsvorganges geschildert.

**An.** - Verdünnte Essigsäure - Essig. Das Ende eines jahrelangen Streites. – Dtsch. Fisch.-Rundschau, 13, 285–288. Bremerhaven (1935). **b - 2309**

Einige Gesichtspunkte aus den Entscheidungsgründen des Reichsgerichtes in Bezug auf die Bezeichnung der verdünnten Essigsäure als Essig und ihre Verwendung in der Fischindustrie.

**An.** - Oysters-Fillets. – 3 phot., Fish. Gaz., LII, 10, 5. New York (1935). **b - 2310**

The two factors contributing to the better development of the fishing industry : the rapid growth of fillet business and the oyster industry ; their influence upon the fishing industry as a whole.

**An.** - Pollock Fillets Now a Real Source of Income. – 1 photo. Fish. Gaz., LII, 13, 9. New York (1935). **b - 2311**

Note showing that fresh pollock fillets found very good marketing condition in the winter 1934–35.

## *Officinae fructibus piscatoriis conficiendis et conservandis – Thecae – Industria.*

**Deed W. J.** - The Technical Section (of the Fishing Gazette). – Fish. Gaz. LII, 5, 25–30; 6, 13–18; 7, 13–16; 9, 13–16; 11, 13–16; 12, 11–14; 13, 11–17. New York (1935). **b - 2312**

In these sections A. gives some practical hints as to the maintenance of fishing boats and their installations : standardized types of boats, new engines, lubrification paints and coatings, fuel oils, fire prevention on board, electrical equipments, ropes etc.

**Hinard G.** - Considerazioni sulle conserve di pesce. Basi tecniche di un controllo sulla loro fabbricazione. – Ind. It. Cons. Alim., 12, 301–311. Parma (1935). **b - 2313**

Ricordate le cause che determinano decomposizioni nelle conserve di pesce mal preparate, l'A. riferisce sulle condizioni igieniche dei prodotti. Condizioni del pesce in scatola (conserva) : procedimenti coi quali viene trattato il pesce nelle fabbriche ; sterilizzazione ; esame del prodotto pronto per la vendita.

**Lang O. W.** - Thermal Processes for Canned Marine Products. – Index, 52 tabls., 14 charts. Univ. Calif. Publ. in publ. Health, II, 1 ; vii + 174 pp. Berkeley, Calif. (1935). **b - 2314**

**Lasausse E.** - Les conserves en boites hermétiques. – VII Congr. Int. Aquicult. & Pêche, Paris, 1931, Communications, III, 137–143. Impr. du Loiret. Orléans (1935). **b - 2315**

Origine et développement des méthodes de conservation du poisson, avantages, contenu en vitamines, hygiène.

**Laurinat K.** - Die deutsche Fisch-Vollkonserven-Industrie. – Dtsch. Fischwirt., 23, 481–484. Berlin (1935). **b - 2316**

Zusammenfassendes Bild der heutigen Lage und Zukunftaussichten der deutschen Fisch-Vollkonserven-Industrie ; ihre wichtigsten Probleme ; wissenschaftliche Erfahrung, welche zu ihrer Lösung verhelfen könnte.

**Lehr** - Die äussere Kennzeichnung der in Packungen oder Behältnissen in den Verkehr gebrachten Lebensmittel. – Dtsch. Fisch.-Rundschau, 3, 54–57. Bremerhaven (1935). **b - 2317**

Ausführungen und Empfehlungen von sachverständiger Seite veröffentlicht im "Reichsanzeiger" Nr. 229 vom 30. September 1927.

**Metzner H.** - Zur Dosennormierung und Kennzeichnung. – Dtsch. Fischwirt., II, 34, 659–660. Berlin (1935). **b - 2318**

Aufstellung genauer Normen für Fischdosen, für Glaspackungen und Packungen aus Pappe und ähnlichem Material ; Problem der Normalisierung.

**Miyakosi Sôdi & Terase Tuneo** - Vibration Figures on the Upper End of Cans beaten repeatedly. I. The Rate of Appearance of the Figure in Relation to the Weight and Vacuity of Salmon Cans. (In Jap., Engl. Rés.). – 4 fig., 1 tabl., Bull. Jap. Soc. Scient. Fish., IV, 2, 82–84. Tokyo (1935). **b - 2319**

**Tjötta L. L.** - Leichter oder schwerer Arbeitsgang in der Vollkonservenindustrie. – Dtsch. Fisch.-Rundschau, 6, 125–126. Bremerhaven (1935). **b - 2320**

Mitteilungen aus dem Institut für Seefischerei Wesermünde. Vf. beschreibt die verschiedenen praktischen Arbeitsgänge in der Sprottenherstellung und bespricht die möglichen Massnahmen, welche die Anstrengung der Arbeiter mildern könnten.

**Tjötta L. L.** - Versuche mit einem neuen Reinigungsmittel für Konservendosen. - Dtsch. Fisch.-Rundschau, 18, 414. Bremerhaven (1935). **b - 2321**

Bericht über das Ergebnis der am Institut für Seefischerei Wesermünde durchgeführten Versuche mit dem Reinigungsmittel „Minlosit-Standard-F“ um festzustellen, ob sich damit eine schnelle, vollständige Reinigung der sterilisierten Konservendosen ermöglichen lässt.

**Tomimasu Kenzô** - Measuring of the Vacuity of full Cans by the Elastic Deflexion of their Upper and Lower End Plates. I. (In Jap., Engl. Rés.). – 9 figs., 5 tabl., Bull. Jap. Soc. Scient. Fish., IV, 4, 261–273. Tokyo (1935). **b - 2322**

Report on the tests undertaken which prove that the changes of the upper end plate vary with atmospheric pressure and temperature, and accordingly that there is no creep in any one of the test cans examined hitherto.

**Normenausschuss.** - Endgültige Festlegung der Dosennormen. – 7 Tab., Dtsch. Fisch.-Rundschau, 16, 362–364. Bremerhaven (1935). **b - 2323**

Tabellen über die Masse, die für die Dosen der Fischindustrie-Erzeugnisse vom Normenausschuss endgültig festgelegt worden sind.

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## VOLUMEN IX

MCMXXXVI

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# ABBREVIATIONES

**a.** - annus, anno, année, an, año
**Aardr.** - Aardrijkskundig
**Abb.** - Abbildungen
**Abh.** - Abhandlung(en)
**Abt.** - Abteilung
**Acad.** - Academia, Académie, Academy
**Accad.** - Accademia
**Akad.** - Akademia, Akademie, Akademi, Akademiia; Akademische
**Algol.** - Algologique
**Amer.** - America; American
**Anat.** - Anatomia, Anatomie, Anatomy; Anatomico(a), Anatomique, Anatomical, Anatomisch
**Ann.** - Annales, Annali, Annals, Annaler, Annalen, Anais, Analele; Annuel, Annual
**Annot.** - Annotationes, Annotations
**Annu.** - Annuario, Annuaire
**Anu.** - Anuario
**Anz.** - Anzeiger
**App.** - Appendix, Appendice
**Aquic.** - Aquiculture
**Aarb.** - Aarbok
**Arbeit.** - Arbeit(en)
**Arch.** - Archivium, Archivio, Archive(s), Archiv, Archivo
**Arct.** - Arctic
**Ark.** - Arkiv(et)
**Årsb.** - Årsbok
**Årsber.** - Årsberetning
**Ass.** - Associazione, Association
**Assem.** - Assemblea, Assemblée, Assembly
**Astron.** - Astronomia, Astronomie, Astronomy; Astronomico(a), Astronomique, Astronomical, Astronomisch
**Austr.** - Australian
**Avd.** - Avdelning

**Bacteriol.** - Bacteriology, Bacteriologie; Bacteriological, Bacteriologisch
**Bactériol.** - Bactériologie; Bactériologique
**Batteriol.** - Batteriologia; Batteriologico(a)
**Bd.** - Board
**Begr.** - Begründet
**Beitr.** - Beitrag, Beiträge
**Ber.** - Bericht(e)
**Biol.** - Biologia, Biologie, Biology; Biologico(a), Biologique, Biological, Biologisch, Biologisk
**Bl.** - Blatt, Blätter
**Bol.** - Boletim, Boletin
**Boll.** - Bollettino
**Bot.** - Botanica, Botanique, Botany, Botanik; Botanical, Botanisch, Botanisk
**Brit.** - Britain; British
**Bul.** - Buletin, Buletinul
**Bull.** - Bulletin, Bulletijn, Bulletino
**Bur.** - Bureau

**Calif.** - California
**Camp.** - Campagnes
**Canad.** - Canadian
**Cat.** - Catalana
**Centr.** - Centrale, Central(e)
**Chem.** - Chemistry; Chemical
**Choz.** - Chozjajstvo
**Cienc.** - Ciencias
**Circ.** - Circulaire, Circular
**Cl.** - Classe
**Col.** - Colonie, Colony; Colonial(e)
**Coll.** - Collegio, Collège, College
**Collect.** - Collection
**Com.** - Commerce, Comercio; Commerciale, Commercial, Comercial
**Comit.** - Comitato
**Comm.** - Committee, Commission
**Commiss.** - Commissioner
**Comp.** - Comparata, Comparée, Comparative
**Conf.** - Conferentia, Conferenza, Conférence, Conference
**Congr.** - Congresso, Congrès, Congress, Congreso
**Cons.** - Consiglio, Conseil
**Contr.** - Contribution(s)
**Corr.** - Corriere
**C. R.** - Compte(s) Rendu(s)
**Cult.** - Cultura

**Dir.** — Direction, Directorate
**Div.** - Divisione, Division
**Dpt.** - Department
**Dtsch.** - Deutsch

**Econ.** - Economia, Economie, Economy
**Ed.** - Editore, Editeur, Editor
**Engl.** - English
**Eng.** - Engineer; Engineering
**Entomol.** - Entomology
**Erdk.** - Erdkunde
**Ergebn.** - Ergebnisse
**Espãn.** - Español(a)
**Exp.** - Experimentalis, Expérimental(e), Experimental
**Exped.** - Expedition(s)
**Expéd.** - Expédition(s)
**Expl.** - Exploration(s)

**Fac.** - Facoltà, Faculté, Faculty
**Fenn.** - Fennica
**Fig.** - Figura(e)
**Fis.** - Fisica, Fisiche, Fisicas
**Fisch.** - Fischerei
**Fischerb.** - Fischerbote
**Fischereibl.** - Fischereiblatt
**Fischwirt.** - Fischwirtschaft
**Fish.** - Fishery, Fisheries; Fishing
**Fisherm.** - Fisherman
**Fisiol.** - Fisiologia; Fisiologico(a)
**Fisk.** - Fiskeri
**Fol.** - Folia
**Forh.** - Forhandlinger
**Förh.** - Förhandlingar
**Forsch.** - Forschung(en)
**Fragm.** - Fragmenta

**Franç.** - Français
**Gaz.** - Gazette
**Gen.** - Generale, General; Genootschap
**Gén.** - Général
**Geod.** - Geodesia, Geodesy, Geodäsie; Geodetico, Geodetical, Geodätisch
**Géod.** - Géodésie; Géodésique
**Geof.** - Geofisica, Geofisico
**Geogr.** - Geographia, Geografia, Geography, Geographie, Geografiia; Geografico(a), Geographical, Geographisch, Geografisk, Geograficeskii
**Géogr.** - Géographie; Géographique
**Geol.** - Geologia, Geology, Geologie, Geologia; Geologico(a), Geological, Geologisch, Geologiskî
**Géol.** - Géologie; Géologique
**Geoph.** - Geophysics; Geophysic(al), Geophysisch
**Gooph.** - Géophysique
**Ges.** - Gesellschaft
**Gesch.** - Geschichte; Geschichtlich
**Giorn.** - Giornale
**Govmt.** - Government

**Handb.** - Handbuch
**Handl.** - Handlingar
**Hidrogr.** - Hidrografinen
**Hist.** - Historia, Histoire, History Historique, Historical, Historisch
**Histol.** - Histologie, Histology; Histologique, Histological, Histologisch
**Hrsg.** - Herausgegeben
**h. t.** - hors texte
**Hydrobiol.** - Hydrobiologie; Hydrobiologica, Hydrobiologique
**Hydrogr.** - Hydrographie, Hydrography; Hydrographique, Hydrographic(al), Hydrographisch
**Hydrol.** - Hydrologie, Hydrology; Hydrologique, Hydrologic(al), Hydrologisch

**Ichtyol.** - Ichtyologie, Ichtyology; Ichtyologique, Ichtyological, Ichtyologisch
**Idrobiol.** - Idrobiologia; Idrobiologico(a)
**Ill.** - Illustrazione, Illustration(s)
**Imp.** - Imperial, Impérial
**Impr.** - Imprimerie
**Ind.** - Industria, Industrie, Industry; Industriale, Industriel(le), Industrial, Industriell
**Inst.** - Institut, Institute, Instituto, Instituut, Institutt
**Instit.** - Institution
**Int.** - Internazionale, International(e)
**Invest.** - Investigation(s)
**Ist.** - Istituto
**Istol.** - Istologia; Istologico(a)
**It.** - Italia; Italica, Italiano(a)
**Ittiol.** - Ittiologia; Ittiologico(a)
**Izv.** - Izvêstja

**Jahresber.** - Jahresbericht(e)
**Jap.** - Japonica, Japonenses, Japonaise, Japanese
**Journ.** - Journal

**Kgl.** - Königlich, Kongelig
**Kl.** - Klasse
**Kol.** - Kolonie; Kolonial
**Komm.** - Kommission
**Kon.** - Koninklik
**Kungl.** - Kunglig

**Lab.** - Laboratorium, Laboratorio, Laboratoire, Laboratory
**Lám.** - Lámina(s)
**Lett.** - Lettere, Lettres
**Linn.** - Linnéen(ne), Linnean

**Mag.** - Magazine
**Malacol.** - Malacologia, Malacologie, Malacology; Malacologico(a), Malacologique, Malacological
**Mar.** - Marina(o), Marine, Marinara
**Marit.** - Maritime
**Maritt.** - Marittimo(a)
**Matem.** - Matematica
**Mathem.** - Mathematics, Mathematik; Mathematic(al), Mathematisch
**Mathém.** - Mathématique
**Med.** - Medicina, Medicine, Medizin; Medico(a), Medical, Medizinisch
**Méd.** - Médecine; Médical(e)
**Medd.** - Meddelanden, Meddelelser
**Meded.** - Mededeelingen
**Mem.** - Memoranda, Memoria(e), Memoirs, Memorial, Memorias
**Mém.** - Mémoire(s)
**Meteorol.** - Meteorologia, Meteorology Meteorologie, Meteorologîa; Meteorologico(a), Meteorological, Meteorologisch, Meteorologisk, Meteorologiceskî
**Météorol.** - Météorologie; Météorologique(s)
**Micr.** - Microscopie; Microscopique, Microscopical
**Mikr.** - Mikroskopisch
**Minist.** - Ministero, Ministère, Ministry, Ministerium
**Miscell.** - Miscellaneous
**Mitt.** - Mitteilung(en)
**Mus.** - Museo, Muséum, Musée, Museum, Museu

**N.** - Nuovo, nouveau, new, neu
**Nac.** - Nacional
**Nachr.** - Nachricht(en)
**Nat.** - National(e)
**Natur.** - Naturale, Naturel(le), Natural, Naturales
**Natural.** - Naturaliste, Naturalist
**Naturhist.** - Naturhistorisch, Naturhistorisk
**Naturv.** - Naturvidenskabelig, Naturvetensskaplig
**Naturwiss.** - Naturwissenschaft(en); Naturwissenschaftlich
**Naut.** - Nautico(a), Nautique, Nautical, Nautisch, Nautisk
**Naz.** - Nazionale
**Ned.** - Nederland, Nederländisch, Nederlandsch
**Néerl.** - Néerlandais(e)

**Norw.** - Norwegian
**Novit.** - Novitates

**Obs.** - Observatoire, Observatory, Observer, Observatorium, Observatorio
**Occas.** - Occasional
**Oceanogr.** - Oceanografia, Oceanography; Oceanographica, Oceanografico(a), Oceanographic(al), Oceanograficeskij
**Océanogr.** - Océanographie; Océanographique
**Off.** - Office; Officiel(le), Official, Offisiell
**Osserv.** - Osservatorio
**Österr.** - Österreich; Österreichisch

**Palaeobiol.** - Palaeobiologia, Palaeobiologie; Palaeobiologica, Palaeobiologisch
**Palaeontogr.** - Palaeontographia, Palaeontographie
**Palaeontol.** - Palaeontologia, Palaeontologie; Palaeontologisch
**Paleontol.** - Paleontologia, Paleontology; Paleontologico(a), Paleontological
**Paléontol.** - Paléontologie; Paléontologique
**Parasitol.** - Parasitologie, Parasitology
**Parassitol.** - Parassitologia
**Pathol.** - Pathologie, Pathology; Pathologique, Pathological
**Pêch.** - Pêcheries
**Perm.** - Permanent(e)
**Pescher.** - Peschereccio
**Phil.** - Philippine
**Phys.** - Physique, Physics, Physik; Physical, Physisch
**Physiol.** - Physiologia, Physiologie, Physiology; Physiologique, Physiological, Physiologisch
**Piscicult.** - Piscicultura, Pisciculture
**pl.** - planche, plate
**Pol.** - Polonais(e), Polish, Polnisch
**Pont.** - Pontificia
**pp.** - pagine, pages
**Probl.** - Problemi, Problème, Problem
**Proc.** - Proceedings
**Profess.** - Professionale, Professionnel, Professional
**Protistenk.** - Protistenkunde
**Protistol.** - Protistologia, Protistologie, Protistology
**Pr.-Verb.** - Procès-Verbaux
**Pubbl.** - Publicazioni
**Publ.** - Publication

**Quart.** - Quarterly

**R.** - Reale, Regia, Royal(e)
**r.** - rekke
**Rapp.** - Rapporto, Rapport
**Rass.** - Rassegna
**Rec.** - Record(s)
**Rech.** - Recherches
**Rend.** - Rendiconto(i)
**Rep.** - Report(s)
**Res.** - Results
**Rés.** - Résumé
**Résult.** - Résultats
**Resúm.** - Resúmenes
**Rev.** - Revue, Review, Revista

**Ric** - Ricerca
**Riun.** - Riunione
**Riv.** - Rivista
**Russ.** - Russian, Russisch

**S.** - Seite
**S.** - South
**Sällsk.** - Sällskap
**Sc.** - Scientia, Scienza(e), Science(s)
**Scient.** - Scientifico, Scientifique, Scientific
**Selsk.** - Selskab
**Senckenb.** - Senckenbergisch
**Ser.** - Serie
**Sér.** - Série
**Sitz.-ber.** - Sitzungsbericht(e)
**Skr.** - Skrift(er)
**Smiths.** - Smithsonian
**Soc.** - Societas, Società, Société, Society, Sociedad, Sociedade, Societatia
**Sper.** - Sperimentale
**Stat.** - Station(s), Stationary
**Statist.** - Statistica, Statistique, Statistics, Statistik; Statistikk Statistical, Statistisch, Statisticeskii,
**Staz.** - Stazione
**Suppl.** - Supplemento, Supplément Supplement

**Tabl.** - Table(s), Tableaux
**Taf.** - Tafel(n)
**Talassogr.** - Talassografico
**Tav.** - Tavole
**Techn.** - Technique(s), Technical
**Thalassogr.** - Thalassographique
**Tidskr.** - Tidskrift
**Tijdschr.** - Tijdschrift
**Trab.** - Trabajos
**Trans.** - Transactions
**Trav.** - Travail, Travaux

**Univ.** - Universitas, Università, Université, University, Universität, Universidad, Universidade, Universitet
**Unters.** - Untersuchungen
**U. S.** - United States

**Ver.** - Verein
**Verh.** - Verhandlungen, Verhandelingen
**Veröff.** - Veröffentlichungen
**Vet.** - Vetenskap, Vetenskaplig
**Vgl.** - Vergleichende
**Vidensk.** - Videnskabelig

**Wetensch.** - Wetenschap; Wetenschappelijk
**Wirt.** - Wirtschaft
**Wiss.** - Wissenschaften, Wissenschaftlich

**Zap.** - Zapiski
**Zool.** - Zoologia, Zoologie, Zoology; Zoologica, Zoologique, Zoological, Zoologisch, Zoologiceski
**Ztg.** - Zeitung
**Ztrbl.** - Zentralblatt
**Ztschr.** - Zeitschrift

(—) - Dello stesso autore, Du même auteur, Of the same author, Von demselben Verfasser, Del mismo autor, etc.

# TABULA

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## I. Generalia

### Navigatio

*Navigationis Historia – Itinera* . . . » 1
*Navigatio plana et litorea – Navigatio astronomica – Instrumenta – Tabulae – Ephemerides – Navigatio radiogoniometrica – Studia pro navigatione* . . . » 10
*Securitas maritima – Operae pro vitae rerumque conservatione – Adsistentia – Destructio et recuperatio navium* . . . » 18
*Signalationes maritimae (fixae, fluctuantes, luminosae et per radio, sonorae et ultrasonorae) – Libri pharorum, lanternarum, signalationum – Communicationes* . . . » 19

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*Operae submarinae – Mersiones – Scaphandrarii – Cava* . . . » 24

### Varia

*Res nauticae – Folklore – Historia politica, militaris et mercatoria marium – Vocabularia nautica – Legislatio nautica* . . . » 25
*Biographiae et necrologiae* . . . » 28

## II. Oceanographia Physica

### Generalia

*Instituta oceanographica – Relationes publicae – Conventus et conferentiae – Oceanographiae historia – Ars docendi – Bibliographiae* . . . » 31
*Expeditiones oceanographiae et scientiae causa susceptae – Studia et quaesita oceanographica* . . . » 37

### Geologia Maris

*Geologia generalis bacini oceanici – Marium origo – Vestigia veterum marium* . . . » 44
*Litora et orae maritimae – Erosiones* . . . » 50
*Sedimenta* . . . » 53
*Topographia submarina – Marini fundi configuratio* . . . » 55

### Geographia Maris

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*Relevationes hydrographicae (geodeticae, topographicae, bathymetricae) – Instrumenta hydrographica et bathymetrica – Naves hydrographicae* . . . » 67
*Chartographia – Atlantes – Portulani* . . . » 77
*Maritimi Portus – Canales – Aestuaria* . . . » 82

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**II. Oceanographia Biologica**

Generalia

*Instituta – Musea – Aquaria – Relationes annuae – Congressus et conferentiae – Expeditiones oceanographicae – Biographiae* . . . . . » 135

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Procreatio

*Maturitas sexualis – Cellulae sexuales – Physiologia fecundationis – Characteres sexuales secundarii – Genetica* . . . . . » 158

Progressus embryonalis et Accretio corporis

*Embryologia – Accretio larvalis – Metamorphosis* . . . . . » 163

Biochemia

*Chemia biologica et metabolismum vitale – Actio substantiarum chemicarum in organismis* . . . . . » 167
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Oecologia

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# I.

# GENERALIA - NAVIGATIO

## Navigationis historia - Itinera.

**Acworth B.** - The Restoration of England's Sea Power [*De renovata dominatione anglica marium*]. Eyre & Spottiswood. London (1935). **a - 1**

It is a new edition of the Author's book: The Navy and the Next War.

**Alaux J. P.** - Ulysse aux Antilles [*De navigatione ad insulas Antillas*]. Nombr. fig., 324 pp., Galion d'or. Paris (1935). **a - 2**

Episodes de l'histoire coloniale française. Récit généralement humoristique, parfois tragique.

**Anderson R. C.** (Supervisor). Lists of Men-of-War, 1650-1700. Parts I & II [*Indices longarum navium, 1650-1700*]. Num. tables. Cambridge University Press. London (1935).

( — ) See brief introductory notes in: Mar. Mirr., XXI, 2, 140-144. London (1935). **a - 3**

Series of Lists published in self-contained parts of about 50-60 pages. Part I contains the English lists, Part II the French ones. They indicate the names of the ships, the number of guns, the place of construction, its date, the length, the beam and the tons.

**Anderson R. C.** - The Als Boat [*Navicula ad* Als *pertinens*]. 2 figs., Mar. Mirr., XXII, 1, 105-106. London (1936). **a - 4**

Some criticism on the article dealing with the resemblances between Scandinavian and Indonesian boat-building (S.: « Mar. Mirr. », Oct., 1935) by Mr. Hornell, followed by an answer of the latter, illustrated by two diagrams.

**Anderson R. C.** - Rye Barges [*De scaphis ad* Rye *pertinentibus*]. Mar. Mirr., XXII, 1, 106 & 108. London (1936). **a - 5**

On hand of an article by Mr. Rice in « Archaeologia » of 1824 (vol. XX) Author gives some supplementary information which permits to form a more definite opinion on the last survivors of the Rye barges, described by Mr. Vidler in a previous issue of « Mar. Mirr. ».

**Anisimov S.** - Possibilités non réalisées [*De possibilitatibus quae effici non potuerunt*]. (En russe). Zvezda Severa, 5, 121-123. Arkhangheljsk (1935). **a - 6**

Analyse critique du livre de A. Mironov sur la « Campagne de l'équipage du " Tchéljouskine " ».

**Arruda M. M. V.** preced. de um ensaio critico, por... - Colleçao de documentos relativos ao descobrimento e pouvamento dos Açôres [*Collectio documentorum quae pertinent ad inventionem insularum* Açôres *atque etiam ad advectionem colonorum*]. 11 pl., clxxxiii + 255 pp., Off. Artes Gràf., Ponta Delgada (1932). **a - 7**

Volume publié à l'occasion du cinquième centenaire de la découverte des Iles Açores célébré à Ponta Delgada, contenant, en dehors d'un essai critique de M. M. V. Arruda, la plupart des documents relatifs à la découverte de ces îles et à leur colonisation. L'œuvre est complétée par la publication des documents officiels de 1439 à 1449, par la description primitive des Iles Açores et enfin par des extraits de chroniques et des lettres se référant aux donations et aux attributions faites par les souverains portugais.

**Azurara (de) G. E.** - Chroniques: La conquête de Ceuta; La découverte de la Guinée [*Chronica. De* Ceuta *subacta deque inventa Guinea*]. Cartes, ill., xiv – 200 pp. (Les grands navigateurs et colons portugais du XV^e^ et du XVI^e^ siècles), Ed. Duchartre. Paris (1934). **a - 8**

La présente édition poursuit un but de popularisation des « Chroniques » d'Azurara qui continuent à représenter le seul témoignage d'un contemporain des premières trente années de l'expansion portugaise d'outre-mer. Elle contient une traduction abrégée du texte original des « Chroniques » qui rend leur lecture plus aisée au public français.

**Baevskij I. L.** - Anniversaire de l'épopée héroïque [*Epos navis* « Tcheljouskine », *die anniversario*]. (En russe). 4 fig., Sov. Arkt., 1, 39-42. Leningrad (1935). **a - 9**

A l'occasion de l'anniversaire du voyage et du renflouement du « Tchéljouskine ».

**Bainbridge Hoff A.** - Preble and the « Philadelphia » [*De domino* Preble *deque navi nomine* « Philadelphia »]. 8 pls., U. S. Nav. Inst. Proc., LXI, 6 (388), 818-830. Annapolis, Md. (1930). **a -10**

On hand of original sources author gives an account of the Tripoli Campaign of Edward Preble, and especially how it was affected by the loss of the « Philadelphia », in order to add something to the account of Preble's career given by Mr. Flatcher Pratt.

**Balen (van) W. J.** - Wat dreef de Portugeezen naar Indië? [*Quae res Lusitanos in Indias adduxerunt?*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam LIII, 1, 46-53. Leiden (1936). **a - 11**

Riferendosi al lavoro dello scrittore storico portoghese J. Bensaude (O Plano da India) ed a un proprio lavoro precedente l'A, sostiene l'idea che sia stato principalmente un fanatismo religioso che abbia spinto i Portoghesi verso l'India. Progetti del Principe Enrico il Navigatore. Spedizioni lungo le coste d'Africa.

**Ballard G. A.** - The Unarmoured Branches of the British Navy of 1875 [*De navibus non aeratis ad classem britannicam pertinentibus, A. 1875*]. 5 figs., 2 pls., Mar. Mirr., XXI, 3, 245-274. London (1935). **a - 12**

Description of the varying designs of new unarmoured tonnage built in 1875, concerned especially with (I) Frigates, (II) Corvettes, (III) Sloops and (IV) Gunvessels; author deals with the size and power, the profile and ordnance forming the armaments of the unarmoured classes, the positions of the gun-ports, etc.

**Ballard G. A.** - British Frigates of 1875. The « Inconstant » and « Raleigh » [*De majoribus navibus anglicis, A. 7185, « Inconstant » et « Raleigh »*]. 4 pls., Mar. Mirr., XXII, 1, 42-53. London (1936). **a - 13**

Author describes the vessels built with the new idea of a complete iron hull encased in timber planking from keel to bulwarks throughout its length adopted by the British Admiralty.

**Barbagelata H. D.** - Histoire de l'Amérique espagnole [*De historia Americae hispanicae*]. 2 cart., 323 pp. Armand Colin. Paris (1936). **a - 14**

**Barrows E. M.** - The Great Commodore [*Res gestae a* Matthew Calbraith Perry]. Bobbs Merril Company. New York (1935). **a - 15**

The exploits of Matthew Calbraith Perry.

**Barthel S.** - Loggbok. Förd ombord i s/s « Albania » på resa från Gävle till Palermo [*Diarium nauticum redactum perdurante navigatione navis* « Albania » *a* Gävle *ad Panormum*]. Ills., 209 pp., Ed. Bonnier. Stockholm (1934). **a - 16**

**Benoist M.** - La Marine Française [*Classis Gallica*]. De Gigord. Paris (1935). **a - 17**

**Berezkine V. & Zhoukov S.** - Le voyage du « Lénine » à Kolyma. Sur l'Océan Glacial avec un vapeur fluvial [*De navigatione navis* « Lenin » *ad* Kolyma. *Navigatio per oceanum glacialem in navi fluviatili vapore eunte*]. (En russe). 15 fig., 62 pp., Ed. Osvod., U. R. S. S. Moskva-Leningrad (1933). **a - 18**

**Bigelow J.** - The So-Called Bartholomew Columbus Map of 15 06 [*De tabula ad Bartholomeum* Colombo *pertinente*]. Geogr. Rev., XXV, 4, 643-656. New York (1935). **a - 19**

On the ideas of Freiherr R. von Wieser about this map. In this discussion evidence is presented to show that the sketch maps of a medieval codex in the Biblioteca Nazionale of Florence do not represent Columbian ideas exclusively and probably date from as late as 1522-1525. Some other criticism on the pamphlet of von Wieser.

**Bolton Ch. K.** - Terra Nova. The Northeast Coast of America before 1602: Annals of Vinland, Markland, Estotilands, Drogeo, Baccalaos, and Normbega [*De Terra Nova. Litus nordorientale Americae ante 1602. Annales*]. Maps, ills., xiii + + 194 pp., Usef. Ref. Ser., no. 56, F. W. Faxon. Boston (1935). **a - 20**

A brief account of the discoverers and the discoveries made in the northeastern part of the western hemisphere from the earliest times to the year 1602. The book is completed by an alphabetical list of « Several Persons Reputed to Have Been on the North East Coast before 1602 ».

**Bona E.** - Alessandro Malaspina. Sue navigazioni ed esplorazioni. [*De Alexandro* Malaspina *eiusque navigationibus atque explorationibus*]. Ill., carte, 33 tav., 13 portol. originali. Ist. Graf. Tiberino. Roma (1935). **a - 21**

Prima pubblicazione italiana del suo diario di bordo.

**Bonner Smith D.** - The Case of the « Sartine » [*De fortuna navis* « Sartine »]. Mar. Mirr., XXI, 3, 305-322. London (1935). **a - 22**

On the hand of the minutes of the proceedings of the court martial on Captain Roddan Home, who fired on the cartel ship « Sartine » on May 1st, 1780, author retells at some length the story revealed by the « court enquiry » and tries to clear up the enquiry about what constituted « a cartel flag » which, as it has been told, has been hoisted by the « Sartine ».

**Bourke A. K.** - Rapport sur la navigation du brise-glace « Sadko » dans la Mer de Kara du 22 Août au 24 Septembre 1934 [*Relatio de navigatione navis glaciei ruptricis* « Sadko » *mari Karënsi a die 2/8 ad diem 24/9 A. 1934*]. (En russe). « Sadko » pod Sov. Flag. (« Sadko » sous band. Sov.), 18-26, Ed. Glavsevmorputj. Leningrad (1935). **a - 23**

**Brackmann K.** - 50 Jahre deutscher Afrikaschiffahrt. Die Geschichte der Woermann-Linie und der deutschen Ostafrika-Linie [*De navigationibus germanicis in Africam, per 50 annos. Historia cursus maritimi nomine* Woermann *cursusque Africae orientalis germanicae*]. 89 Abb., 7 Faks., 2 Taf., 1 Karte. Dietrich Reimer (Andrews & Steiner). Berlin (1935). **a - 24**

**Brøgger A. W.** - Vinlandsferdene [*De navigationibus ad* Vinland]. 1 Karte. Norsk Geogr. Tidsskr. VI, 2, 65–85. Oslo (1936). **a - 25**

Besprechung der über die Entdeckungsfahrten von Amerika vorbefindlichen Quellen mit besonderer Berücksichtigung der von Torfœus vor etwa 200 Jahren veröffentlichten Arbeit über Vinland.

**Byrd R. E.** - Discovery [*Inventio*]. 405 pp., G. P. Putnam's Sons. New York (1935). **a - 26**

Book of polar exploration.

**Cabruja J.** - El barco en la historia [*De navi apud historiam*]. Rev. Soc. Geogr. de Cuba, VII, 3/4. La Habana (1934). **a - 27**

**Castex** - Théories stratégiques. Tome V [*De strategia*]. 730 pp., Soc. Edit. Géogr. Marit. & Colon. Paris (1935). **a - 28**

Dans ce V-ème volume de sa grande oeuvre doctrinale l'A. étudie l'antagonisme séculaire entre les hégémonies marines et les puissances continentales, en analysant tour à tour les guerres napoléoniennes, la grande guerre et le problème russo-asiatique.

**Chabanier E.** - Connaissance de la Mer Rouge [*De Mari Rubro eiusque notione*]. 3 tables, 4 croquis de cartes. Géogr., Terre-Air-Mer, LXV, 2, 85-124. Paris (1936). **a - 29**

L'A. examine avec attention le problème de la Mer Rouge dans son développement au cours des siècles et dans son importance comme route de voyage. Dans le premier chapitre il étudie l'expédition de Renaud de Chatillon en 1182 qui a réalisé, d'une manière pratique, la

navigation sur la Mer Rouge, à travers un canal construit entre cette dernière et la Méditerranée. Dans les autres chapitres il précise l'histoire de la route maritime d'Asie à la lumière des témoignages de l'Histoire des Francs en Asie et des observations des rédacteurs des plus anciens, Red Sea Pilots; la première raison de navigation de la Mer Rouge fut la recherche des marchés de l'encens nécessaire au culte. Il illustre ensuite les difficultés de retour révélées par le voyage de Joham de Castro et dans ses conclusions il affirme que la route de l'Inde par la mer Rouge a été établie d'une façon artificielle pour concurrencer la route des Hauts Plateaux de la Côte Arabique.

**Chabanier E.** - Astronomie méditerranéenne et marine grecque [*De astronomia mediterranea deque marina graeca*]. 7 fig., 2 tabl., Rev. Scient., LXXIII, 4 & 5, 112-122, 153-159. Paris (1935). **a - 30**

L'A. essaie de déterminer l'ensemble des connaissances qui forment le fond de l'astronomie nautique du monde antique, avec référence spéciale au gnomon–héliotropion qui a contribué à la fondation de l'astronomie publique. Il décrit les applications maritimes des données de cette science sur l'exemple des voyages odysséens, des voyages ioniens et aux premières expéditions dirigées à l'étude des vents par les géographes grecs, à l'interprétation astronomique du méridien expérimental, au premier parallèle et s'arrête de nouveau sur les gnomons dont il décrit plusieurs formes.

**Chack P.** - Deux batailles navales. - Lépante et Trafalgar [*De duobus proeliis navalibus. Naupactus et* Trafalgar]. Les Ed. de France. Paris (1935). **a - 31**

**Chapelle H. I.** - The History of American Sailing Ships [*Historia classis velicae Americanae*]. Num. plans, lines, draw., phot., 430 pp., Alfred W. Paine; Putnam & Co. Ltd. New York & London (1935). **a - 32**

I. Colonial craft. - II. Naval ships. - III. Privateers and Slavers. - IV. The forgotten Service. - The Revenue Cutters. - V. The schooners. - VI. Merchant vessels. VII. Yachts.

**Charcot J.** - Voyages aux Iles Feroë [*De navigationibus ad insulas* Feroë]. 96 pp. Paris (1934). **a - 33**

**Charliat P. J.** - Sur les vaisseaux de la Compagnie des Indes [*De navigationibus peractis in navibus ad* Compagnie des Indes *pertinentibus*]. 9 fig., Mer & Outre-Mer, nº. d'avr., 20-24. Paris (1936). **a - 34**

Brève description des navigations et des navires Portugais employés pour les Indes dès la fin du xv-e siècle; perfectionnement par les Hollandais à la fin du xvi-e siècle du type de vaisseau que les Portugais employaient pour les Indes; description du port et de l'arsenal de Lorient, centre de la Compagnie Française des Indes et marché des produits provenant de ce pays exotique; commentaire de la vie au bord des bateaux de la Compagnie, fait sur la base du modèle coupé du « Vengeur »; les catastrophes enrégistrées par la Compagnie au cours de son existence et les combats livrés par ses vaisseaux.

**Chokaljskij J.** - Vingt-cinquième anniversaire de la découverte du Pôle Nord par Robert E. Peary le 6 avril 1909 [*De invento polo Septemtrionali a Roberto* E. Peary *XXVº recurrente anno. Die 6 mensis Aprilis A. 1909*]. (En russe). Izv. Gos. Gheogr. Obstsch., LXVI, 5, 716-720. Leningrad (1934). **a - 35**

**Coutinho G.** - Marine de la Méditerranée et Marine de l'Atlantique [*De marina mediterranea deque marina atlantica*]. Bol. Soc. de Geogr., mai-juin, 219-227. Lisboa (1935). **a - 36**

**Crawshay L. R.** - Possible Bearing of a Luminous Syllid on the Question of the Landfall of Columbus [*Syllidae luminosae. De opinatis adumbrationibus Columbianis*]. Nature, CXXXVI, 3440, 559-560. London (1935). **a - 37**

The A. reports some observations on the luminous displays of the swarming *Odontosyllis* supporting the idea that these might be identical with the « mysterious light » observed by Columbus from the poop of the « Santa Maria » on October 11, 1492 near Watling's Islands.

**Derancourt E.** - Les côtes de France à l'époque gallo-romaine (II siècle). [*De litoribus Gallicis sec. II*]. Bull. Soc. Océanogr. France, XV, 86, 1489-1495, 87, 1511-1514, 88, 1531-1536. Paris (1935-1936). **a - 38**

Gallicum mare et ligusticum.

**Djakonov M. A.** - Les dérives historiques [*De declinationibus magni momenti historici*]. (En russe). 7 fig., 1 carte. Vokr. Svjet. 7, 4-9. Leningrad (1934). **a - 39**

**Drigo.** - Arctic Navigation in 1935 [*De navigatione per regiones arcticas A. 1935*]. (In Russ. & Engl.). Bull. Arct. Inst., 7, 189-190, 222-223. Leningrad (1935). **a - 40**

Account of the arctic navigation during the year 1935, which has been essentially different, by its volume and importance, from those of the preceding years; it represents the first attempt to pass from the field of scientific investigations to a regular traffic from east to west and vice versa along the Great Northern Maritime Route.

**Duff G.** - The Trafalgar General Order Book of H. M. S. « Mars » [*Liber de praeceptis generalibus pro pugna navali* Trafalgar *in navi regia* « Mars »]. 2 tables. Mar. Mirr., XXII, 1, 87-104. London (1936). **a - 41**

Publication of Captain Duff's General Order Book, issued by him when he assumed the command of H. M. S. « Mars » on June 6th, 1804, together with that of Captain (afterwards Admiral) Robert Dudley Oliver, concerning respectively: General Orders relative to the International Regulations of H. M. S. « Mars ». Orders at sea. Orders respecting accidents by fire. Orders to be observed on Board H. M. S. « Mars » preparative to and in action.

**Dyer F. E.** - Reprisals in the Sixteenth Century [*De ultionibus navalibus sec. XVI*]. Mar. Mirr., XXI, 2, 187-197. London (1935). **a - 42**

Some information on the reprisals in the sixteenth century, which were regarded by every government as a legitimate means of obtaining redress for wrongs committed by the subjects of neighbouring states, with whom there was otherwise complete peace. Author gives a more or less typical example of one case of such reprisals, which has drawn the English and French governments into quarrel in the year of 1576.

**Dzhemali A.** - La lutte pour la Voie du Nord [*De cursu maritimo Nordico*]. (En russe). Fig., ill., 103 pp., Tekhn. da Schrama. Tiflis (1935). **a - 43**

**Fontoura da Costa** - L'Almanach Perpetuum de Abraham Zacut (Leiria, 1496). [*Manachus perpetuus ad* Abraham Zacut *pertinens A. 1496*]. 9 ill., 12 pp., III Congrès Int. de l' Hist. des Sc. Lisboa (1935). **a - 44**

**Fontoura da Costa A.** - A Marinharia dos descobrimientos [*De arte naviganti temporibus magnarum inventionum geographicarum*]. 500 pp. Lisboa (1935). **a - 45**

Lavoro apparso negli Anais do Club Militar Naval. Storia degli strumenti e dell'arte del navigare, delle carte nautiche e delle tavole utilizzate dal marinaro ai tempi eroici delle grandi scoperte.

**Foulkes C.** - Wreck of « Mary Rose » [*De naufragio navis* « Mary Rose »]. Mar. Mirr., XXI, 2, 205-206. London (1935). **a - 46**

Description of some remains of the ship « Mary Rose » which sank in an engagement with the French fleet in July 1545 behind the sandbanks of Portsmouth.

**Gakkelj J. J.** - The Voyage of the « Vanzetti » and « Iskra » [*De navigatione a navibus* « Vanzetti » *et* « Iskra » *peracta*]. (In Russ. Engl. Summ.) Bull. Arct. Inst., VI, 1, 14-16, 45-46. Leningrad (1936). **a - 47**

Brief account of the voyage of two cargo-steamers « Vanzetti » and « Iskra » from Murmansk on July 25th, 1935 to Vladivostok. They reached this last port in splendid condition, and the complete security of the cargo delivered constituted the best proof of the success of this first trip of cargoes along the Northern Sea Route. During the voyage meteorological observations and hydrological and oceanographic work were performed by two scientists appointed by the Arctic Institute.

**Gavaldà J.** - Consideraciones acerca de la hegemonia y decadencia de los veleros y sobre sus glorias y su utilidád [*De navigatione velica. Notae historicae*]. 8 fig., Iberica, a. XXIII, V. XLV, 1111, 161 y 170-174. Madrid (1906). **a - 48**

Recuerdos de los dias de la vela. Continuación del art. publicado en el vol. XLIII, 1043, 221 y 1070 p. 280. Continuarà.

**Gilfillan S. C.** - Inventing the Ship [*De historia navis inventionis et constructionis*]. 80 figs., 294 pp., Follett Publ. Co. Chicago (1935). **a - 49**

History of shipbuilding from its very origin until today, with special reference to its development during the last 150 years, containing most precise and complete information about the progress of the modern Navy.

**Gillespie R. St. J.** - Sir Nathaniel Dance's Battle off Pulo Auro [*De pugna navali Domini* Nathaniel Dance *longe a litoribus* Pulo Auro]. 4 pls., Mar. Mirr., XXI, 2, 162-186. London (1935).

( — ) Commodor Dance's Action off Pulo Auro. – Mar. Mirr., XXI, 4, 457-458. London (1935). **a - 50**

On hand of manuscript memoirs, written in 1825, of John Cunningham, Surgeon in the Royal Navy, and of a number of authentic facts and figures regarding Nathaniel Dance's battle with the French Admiral Linois off Pulo Auro, in the China Seas, the author gives a description of the battle drawing some conclusions which do not altogether agree with the commonly accepted accounts.

**Giorgi De Pons R.** - L'epoca dei clippers [*De navibus nomine* clippers]. Riv. Maritt., LXVIII, 11, 113-131. Roma (1935). **a - 51**

Volo d'uccello sul periodo velico della seconda metà del secolo passato. Caratteristiche dei clippers e loro principali imprese specialmente nei mari d'Australia.

**Goeje (de) C. H.** - Op den oceaan voor en na Columbus (met een oplossing van het raadsel van Antilia). [*De navigatione per Oceanum ante et post aetatem Columbianam. Solutio adiicitur aenygmatis ad insulas Antillas pertinentis*]. West-Ind. Gids 18, 65-81. ? (1936-37). **a - 52**

**Gorett J. M. L.** - The Mariner's Compass [*De buxida nautica*]. 3 fig. o. t., Journ. Amer. Soc. Nav. Engrs., XLVII, 2, 220-228. Washington (1935). **a - 53**

On the ancient history of the compass. The A. demonstrates the falsity of many ideas believed all over the world about this history, as, for instance, the fact that the compass was known in China still earlier than in Europa.

**Gould R. T.** - John Harrison and His Timekeepers [*Johannis* Harrison *eiusque chronometra*]. 1 frontisp., 6 pls., Mar. Mirr., XXI, 2, 115-139. London (1935). **a - 54**

Annual lecture for 1935 delivered at the Society for Nautical Research dealing with the man who first solved definitively the famous problem of finding longitude at sea and tracing the first development of the marine timekeeper. The later development of the construction of marine timekeepers under the stimulus of Harrison's example and success in other countries than Great Britain is also dealt with.

**Guillén J. F.** - Suggested Remains of a Carthaginian Boat [*De praesumptis relictis navis cuiusdam Carthaginiensis*]. 3 figs., Mar. Mirr., XXI, 2, 206-207. London (1935). **a - 55**

Description of some wooden remains appeared during the excavations now in progress in Albufereta, three kilometers north of Alicante, (Spain), ancient Roman port of Lucentum, which can be easily identified as a piece of washboard, falca, of a boat's beam.

**Hamilton R. C. & Ballard G. A.** - Commodore Dance's Action off Pulo Auro [*De pugna navali a Commodoro* Dance *peracta longe a* Pulo Auro]. Mar. Mirr., XXI, 3, 323-324. London (1935). **a - 56**

Two comments on Colonel Gillespie's article on « Commodore Dance's Action off Pulo Auro » published in « Mar. Mirr »., XXI, 2, pp. 163–186, 1935.

**Hammarsten H.** - Med « Thalatta » till Nordkap [*De navigatione, navi* « Thalatta » *peracta, ad* Nordkap]. Jorden runt 305-321. Stockholm (1934). **a - 57**

**Hennig R.** - Terrae incognitae. Eine Zusammenstellung und kritische Bewertung der wichtigsten vorkolumbischen Entdeckungsreisen an Hand der darüber vorliegenden Originalberichte. I. Altertum bis Ptolemäus [*Terrae incognitae. Relatio et investigatio critica explorationum majoris momenti quae temporibus prae-columbianis peractae fuerunt. I. Ab antiquis temporibus usque ad aetatem ptolemaicam*]. 384 pp., E. J. Brill. Leiden (1936). **a - 58**

**Hoel A.** - The Discovery of King Karl Land, Spitsbergen [*De inventa Terra Regis Caroli* (Spitsbergen)]. 1 map., Geogr. Rev., XXV, 3, 476-478. New York (1935). **a - 59**

Description of the probable early discovery of the King Karl Land by an English whaler in 1617 and its rediscovery by Elling Carlsen of Tromsö in 1859. Author shows that this Land has been discovered by E. Eriksen six years before Carlsen.

**Högbom I.** - Världssjöfarten [*De navigatione omnium gentium*]. 309 pp., maps, 6 tabl. Göteborg (1935). **a - 60**

An attempt to analyse the economical and geographical possibilities underlying the world's navigation. Trade and its relation to navigation. Important ports and their regions for sale. Different trade and passenger lines all over the world with a special regard to those of Northwestern Europe and their competition.

**Hornell J.** - Constructional Parallels in Scandinavian and Oceanic Boat Construction [*Comparatio inter Scandias constructiones scapharum et constructiones australienses*]. 6 figs., 6 pls. o. t., Mar. Mirr., XXI, 4, 411-427. London (1935). **a - 61**

The present note is mainly interrogative, for while it describes certain strangely close resemblances in the highly specialised technique of boat construction of two widely separated regions - Scandinavia and Western Oceania - author is unable to furnish conclusive evidence in favour of either of the hypotheses suggested to account for a common origin of these remarkable similarities.

**Hovdenak G.** - Roald Amundsens siste ferd. Med et tillegg om Krassin-Ferden av Adolf Hoel [*De ultima navigatione a* Roald Amundsen *suscepta. Supplementum adicitur de expeditione navis* « Krassin »]. Ills. & maps, 303 pp. Oslo (1934). **a - 62**

**Hover O.** - Von der Galiot zum Fünfmaster. Reviewed by J. C. Niedermair, Senior Engineer (Naval Architect). Bureau of Construction and Repair. Navy Dept. [*Historia navigationis. Agitur de navibus quibus* Galiot *nomen est deque navibus quinque malis praeditis*]. Angelsachsen-Verlag Bremen (1935). **a - 63**

Geschichtlicher Ueberblick der Segelschiffe während 1780-1930. Vf. erörtert die verschiedenen Typen und die gradweisen Veränderungen, welche während der oben genannten Periode stattgefunden haben.

**Ioffe S. S.** - Le premier voyage soviétique du « Sadko » [*De prima navigatione navis sovieticae* « Sadko »]. (En russe). « Sadko » pod Sov. Flag. (« Sadko » sous Band. Sov.), 5-17. Ed. Glavsevmorputj, Leningrad (1935). **a - 64**

**Jourjev S.** - Sur une barque au-delà du cercle polaire [*De navigatione in scapha trans circulum polarem*]. (En russe). 4 ill., 1 carte. Morsk. Sborn., 10, 49-55. Leningrad (1935). **a - 65**

Expédition des élèves de l'Institut « Dzerzhinskij ».

**Jouzhine D.** - Les Colomb russes [*De navigatoribus russicis qui cum* Colombo *comparari possunt*]. (En russe). 1 fig., Karelo-Mourm. Kraj, 7, 24-26. Leningrad (1935). **a - 66**

A propos du bicentenaire de la Grande Expédition Polaire.

**Kammerer A.** - La Mer Rouge l'Abyssinie et l'Arabie depuis l'antiquité. Tome II. Les guerres du Poivre. Les Portugais dans la Mer Rouge et en Abyssinie [*De mari Rubro, Abyssinia et Arabia ab antiquis temporibus. Tomus II. De Lusitanis eorumque navigationibus in mare Rubrum et Abyssiniam*]. 7 tabl. synopt., 169 pl., 95 fig., 570 pp., I & II, Soc. R. Géogr. d'Egypte. Le Caire (1935). **a - 67**

Ces deux volumes ne sont pas uniquement la suite du tome 1er et peuvent être lus sans que soit nécessaire la connaissance du précédent. Le premier volume traite des guerres maritimes des Portugais dans la Mer Rouge dans le but de s'emparer du commerce des épices, et d'autres campagnes jusque dans l'Océan Indien. Le second volume est consacré à l'Histoire de la Géographie à la base des découvertes portugaises et surtout au développement de la cartographie scientifique, dans lequel les Portugais ont joué le premier rôle.

**Keigwin R. P.** - Admiral Nelson's Journey Trough Germany [*De itinere Almiragii* Nelson *per Germaniam*]. Mar. Mirr., XXI, 2, 153-157, London (1935). **a - 68**

A brief account with some quotations of a long article, published in a German naval officers' Journal M. O. V. June 15th and July 1st, 1934 by Christian Voigt on a Voyage of the Admiral Nelson in Germany in 1800.

**Koulyghine P.** - Le récit des héros [*Epos navigatorum navis* « Tcheljouskine »]. (En russe). 20 ill., 272 pp. « Daljghiz ». Moskva-Khabarovsk (1934). **a - 69**

L'épopée de l'équipage du brise-glace « Tchéljouskine ».

**Köster A.** - Studien zur Geschichte des antiken Seewesens [*De historia veteris artis navigandi*]. 1 Taf., 16 Abb., 155 S., Klio, Beiheft 32 (N. F. 19). Verl. Dieterich. Leipzig (1934). **a - 70**

Die hier vorliegenden Studien bilden eine wertvolle Ergänzung zu dem früher erschienenen Werke über das Antike Seewesen. Altägyptische Schiffe: Transportschiff für Obelisken, die Schiffahrt auf dem Nil (nach Herodot), die schwimmende Villa des Ptolemaios; persische und griechische Schiffe (Xerxes) und altnordische Schiffe.

**Krastine E. F.** - Activité de la flotte maritime dans l'Extrême Nord [*Res gestae a classe maritima in extremis septentrionalibus regionibus*]. (En russe). Za Osvojenije Arkt., 73-88. Leningrad (1935). **a - 71**

**Kurze Fr. Wilh.** - Nordmeerfahrten der Reichsmarine. Mit dem Vermessungs- und Forschungsschiff « Meteor » nach Island, Grönland und Jan Mayen [*De navigationibus in maria septemtrionalia a classe germanica peractis. Agitur de navi* « Meteor » *pro investigationibus et mensurationibus scientificis eiusque navigationibus in Islandiam, Groenlandiam et insulam* Jan Mayen]. 65 Abb., 54 S., Dietr. Reimer. Berlin (1935). **a - 72**

**Lebedev A. I.** - Vers le coeur glacial de l'Arctique [*De navigatione in centralem regionem Arcticam*]. (En russe). 255 pp. Moskva (1935). **a - 73**

Description des voyages et des explorations qui se succédèrent dans l'Arctique depuis le XVI-ème siècle jusqu'à nos jours.

**Lefebvre des Noëttes** - De la marine antique à la marine moderne. La révolution du gouvernail [*Res nauticae ab antiquis aetatibus in hodiernum*]. Masson et Cie. Paris (1935). **a - 74**

**Lepotier** - Les Corsaires du Sud et le pavillon étoilé de l'Alabama à l'Eruden [*Res gestae a piratis*]. 15 fig., 203 pp., Soc. Ed. Geogr., Mar. & Col. Paris (1936). **a - 75**

**Litke N.** - Traces de l'expédition Roussanov sur l'« Hercule », disparue sans nouvelles depuis 1913 [*De vestigiis expeditionis* Russanov *no-*

*mine, in navi* « Hercule » *quae dilapsa est sine ulla notitia*]. (En russe). 2 fig. Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr.) LXVII, 2, 255–257. Moskva–Leningrad (1935). **a - 76**

Bref compte-rendu de la trouvaille des traces de l'expédition Roussanov disparue depuis 1913, sur une île inconnue que l'on suppose être l'Ile de Vejsel et à laquelle on a attribué ce nom.

**Mac Millan Ch.** - Les Français et la découverte de l'Australie [*De Gallis deque inventa Australia*]. 1 carte, 3 grav. Géogr., Terre–Air–Mer. LXIV, 1, 10-19. Paris (1935). **a - 77**

Historique de la découverte de l'Australie et du rôle des Français dont il résulte le fait vraiment paradoxal, que le continent australien ait été annexé par les Anglais du fait des Français eux-mêmes. Compte rendu de l'expédition du Comte de la Perouse, basé en partie sur un extrait de son journal.

**Magnaghi A.** - Precursori di Colombo ? Il tentativo di viaggio transoceanico dei genovesi fratelli Vivaldi nel 1291 [*De* Vivaldi *fratribus eorumque navigatione transoceanica A. 1291*]. 6 carte, 155 pp. Mem. R. Soc. Geogr. Ital. XVII, 14. Roma (1935). **a - 78**

L'A. fa una compilazione dei manoscritti, delle carte e dei portolani antichi e dei libri, in cui sono segnalati i viaggi compiuti dai fratelli Ugolino e Guido Vivaldi, commercianti e navigatori genovesi del secolo XIII, che sarebbero partiti da Genova nel maggio 1291 avendo per iscopo di raggiungere le Indie passando per l'Atlantico. Si sa che dopo aver attraversato Gibilterra, navigato lungo il littorale africano occidentale raggiunsero una località detta « Gozora », sita probabilmente sulla costa marocchina vicino al Capo Jubyn laddove le loro tracce furono perdute. Sembra che volessero, facendo il periplo dell'Africa, raggiungere l'Etiopia.

**Manwaring C. E. & Dobrée** - The Floating Republic. An Account of the Naval Mutinies at Spithead and the Nore in 1797 [*De seditione navali in* Spithead *et* Nore *A. 1797*]. Geoffrey Bles Ltd. London (?). **a - 79**

Thanks to the patient and exhaustive research among temporary records undertaken by the A. A. this work is able to throw new light on the causes of this extraordinary revolutionary movement and their leader.

**Marconi P.** - La Dalmazia Romana [*De Dalmatia Romana*]. Vie d'Italia e del Mondo, 4, 393-418. Milano (1935). **a - 80**

L'occupazione romana e l'opera di romanizzazione. Il nome Dalmazia. La zona costiera centro di civiltà.

**Marsili L. F.** - Osservazioni intorno al Bosforo Tracio o vero Canale di Costantinopoli rappresentate in lettere alla Sacra Real Maestà di Cristina Regina di Svezia [*Observationes circa Bosphorum Thracium seu Canalem Constantinopolitanum. Epistulae ad Sacram Regiam Majestatem Christinam Suetiorum Reginam*]. Boll. Pesca Piscic. & Idrobiol. XI, 734-758. Roma (1935). **a - 81**

Ristampa della relazione fatta dal Marsili nel 1681.

**Mironov A.** - La campagne de l'équipage du « Tchéljouskine » [*De navigatione navis* « Tscheljuskin »]. fig., 1 carte h. t., 212 pp., Sevkrajghiz, Arkhangheljsk (1935). **a - 82**

**Modena E.** - Magellano [*Magellanus*]. Riv. Cult. Mar., XI, 1/2, 16-23. Roma (1936). **a - 83**

In tutti i numeri dell'annata vi sono racconti storici e novelle marinare dell'A. con la sigla E. C. M. o Ciai–Ka.

**Mollema J. C.** - De eerste schipvaart der Hollanders naar Oost-Indië 1595-1597 [*De prima navigatione ab Hollandesibus peracta in Indias orientales*, 1595–1597]. Cartes, fig., pl., 209 pp. Linschoten-Vereen. 's-Gravenhage (1935). **a - 84**

Publié par la Société « Linschoten–Vereen » sur la base de vieux journaux.

**Mornand P.** - Les beaux voyages d'autrefois. Etranges découvertes de Marco Polo vénitien du XIII<sup>e</sup> siècle [*De inventionibus geographicis a Marco Polo peractis sec. XIII°*]. 7 fig., Mer et Outre-Mer, Juin, 39-42. Paris (1935). **a - 85**

Episodes des voyages de Marco Polo accompagnés des illustrations d'après les miniatures du Livre des Merveilles de Marco Polo, manuscrit de XIII<sup>e</sup> siècle.

**Mouranov L.** - Dans le pays du silence séculaire. Le voyage du brise-glace « Ghéorghij Sjedov » vers la Terre de François-Joseph et la Severnaja Zemlia en 1930 [*De navigatione navis glaciei-ruptricis* « Gheorghij Siedow » *ad Terram Francisci Josephi et* Severnaja Zemlja *A. 1930*]. (En russe). 1 carte, 180 pp., Severn. Izd. Leningrad (1932). **a - 86**

**Murray K. M. E.** - The Constitutional History of the Cinque Ports [*De historia constitutionali quinque Portuum*]. Univ. Press. Manchester (1936). **a - 87**

**Nani Mocenico M.** - Storia della Marina Veneziana da Lepanto alla caduta della Repubblica [*De historia Classis Venetae a proelio Naupacto ad exitum Rei Publicae*]. 73 tav., f. t. iii + 384-xxxix pp. Litografia dell'Ufficio di Gabinetto, Ufficio Storico della R. Marina, Edit., Roma (1935). **a - 88**

L'organizzazione navale veneziana da Lepanto alla caduta della Repubblica. La Marina veneziana dopo Lepanto. Gli Uscocchi. La guerra Ispano-Veneta. Altri avvenimenti navali fino al 1644. La guerra di Candia (1644-1669). La Marina veneziana dopo la perdita di Candia. La guerra di Morea (1684-1699). La Marina veneziana al principio del secolo VIII. La guerra di Corfù (1714-1718). La Marina veneziana dopo il trattato di Passarowitz. Le spedizioni contro gli Stati Barbareschi. Fine della Marina veneziana.

**Nielsen A. K.** - Marco Polos Rejser [*De navigationibus a Marco Polo peractis*]. 303 S., Gyldendal, København (1935). **a - 89**

**Nishimura S.** - The Karriwa-Buné or Birch-Bark Canoe [*De scapha* K-B *seu canoa ex typo* B-B]. Figs., pls., fold. map. Soc. Nav. Architects. Tokyo (1931). **a - 90**

This work is vol. VIII of a Study of Ancient Japanese Ships and concludes the survey of skin-boats.

**Nordhoff Ch. & Hall H. J.** - Les mutins de la « Bounty » [*De seditiosis navis* « Bounty »]. (Trad. de l'Angl.). 316 pp., Ed. Nouv. Rev. Critique, coll. « Tours d'Horizon », Paris (1935). **a - 91**

Récit traduit de l'anglais, des tragiques évènements qui se déroulèrent à la fin du XVII-ème siècle sur le vaisseau armé de Sa Majesté britannique et qui constitue un roman d'aventures le plus surprenant dans les annales de la Marine anglaise; la relation officielle de Sir John Barron a fourni les données pour l'évocation magnifique de cette incroyable aventure de mer.

**Nouhuys (van) J. W.** - Crooked-Stern Craft [*De navibus, puppis praeditis asymmetricis*]. Mar. Mirr., XXII, 1, 109-110. London (1936). **a - 92**

Some observations on a peculiarity in the construction of Venitian gondolas, which all have an obvious list to starboard. Author claims that very little attention has been paid to this famous type of boat.

**Nunn G. E.** - The Columbus and Magellan Concepts of South American Geography [*Conceptiones Columbianae et Magellanicae pro geographia Americae meridionalis*]. 7 charts, 2 maps o. t., 58 pp., Priv. print. Glenside (1932). **a - 93**

By means of a comparison between the opposite opinions of these cosmographs of the XVIth century, the existence of two theories concerning the identity of Asia and America in those remote times is pointed out.

**Nunn G. E.** - The Mappemonde of Juan de la Cosa. A Critical Investigation of its Date [*De mappamundi ad Johannem* de la Cosa *pertinente. Investigatio critica circa tempus eius delineationis*]. 2 maps. o. t., 52 pp., G. H. Beans. Libr., Jenkintown (1934). **a - 94**

The mappemonde of Juan de la Cosa seems to be issued in 1500; its author took part in the first two voyages of Columbus. Claiming however that Juan de la Cosa has known other charts of the same region the A. of the note places the data of the issue of the Mappemonde in the years 1507-1508 instead of the year 1500.

**Orlovskij P. V.** - Traces de l'expédition de V. A. Rousanov [*De vestigiis expeditionis* V. A. Rusanov]. (En russe). Sev. Morsk. Putj, II, 39-44. Leningrad (1935). **a - 95**

**Ouchakov, Zoubov, Nikolaev, & Volodarskij.** - Vers les hautes latitudes [*De navigationibus ad altas latitudines*]. (En russe). Sovj. Arkt., 2, 87. Leningrad (1935). **a - 96**

Le premier radiogramme du «Sadko» de Barentsbourg.

**Oulie M.** - La vie maritime aux Antilles [*Vita maritima in insulis Antillis*]. 10 fig. Mer & Outre-Mer, n.° avr., 1-6. Paris (1936). **a - 97**

Histoire de la découverte des Antilles par les espagnols; les embarcations des indigènes; histoire de la conquête des Antilles par les français; la lutte avec les anglais; les Antilles pendant la Révolution; description des côtes des Antilles et de la pêche autour et au large de ces îles.

**Ostrovskij B. G.** - La Grande Expédition Polaire, 1733-1743 [*De navigatione ad Polum. 1763/1773*]. (En russe). Ill., 137 pp., Sevkrajghiz., Arkhangheljsk (1935). **a - 98**

**Outhwaite L.** - Unrolling the Map. The Story of Exploration, with Drawings of Ships by Gordon Grant [*Historia explorationum maritimarum cum adumbrationibus quae naves repraesentant, per* G. Grant]. Figs., 56 maps, xiv + 351 pp. Constable, London (1935). **a - 99**

Being a seaman and a scholar in anthropology A. gives a methodic account of the exploration of the world. He does not only give a simple list of conquered countries and of crossed seas, but tries also to penetrate the intentions and the aims of the travellers, as well as the secret reasons which obliged them to act in the way they did.

**Paier J.**, trad. & rev. **Retovskij I. & L.** - 725 jours dans les glaces de l'Arctique [*De navigationibus per glacies arcticas 725 dies*]. (En russe). Ill., 3 cartes h. t., 301 pp., Ed. Glavsevmorputj, Leningrad (1935). **a - 100**

Traduction de l'ouvrage fondamental sur l'expédition polaire austro-hongroise, 1871-1874.

**Pitcairn J. Ch. G.** - Pakenham on Masting [*De domino* Pakenham *eiusque scriptis quoad navium malos*]. 3 figs., Mar. Mirr. XXI, 4, 454-455. London (1935). **a - 101**

Translation of a letter found in a volume of papers on Naval Architecture published by the proprietors of the «European Magazine»(1793) and containing Captain Pakenham's remarks about the difficulty and expense of remasting ships on foreign stations.

**Prestace E.** - The Portuguese Pioneers [*Primi exploratores Lusitani*]. Maps, xiv + 352 pp. (The Pioneer Histories), A & C. Black Ltd., The Macmillan Co., London & New York (1933). **a - 102**

History of Portuguese over-sea expansion; an up-to-date account of the origins and development of the nautical science in the Iberian Peninsula; author provides «a broad survey of a great migration» and its course from the expedition to Ceuta in 1415 down to the settlement in Macao in 1557.

**Prianichnikov D.** - L'histoire de la conquête de l'Arctique [*Historia explorationum per Arctidem*]. (En russe). 1 carte, 12 fig., Nauka i Jiznj, 4, 9-20. Moskva (1935). **a - 103**

**Quinn D. B.** - Edward IV and Exploration [*De Eduardo IV deque explorationibus maritimis*]. Mar. Mirr., XXI, 3, 275-284. London (1935). **a - 104**

An account of the few scraps of information pieced together by the Author containing evidence of the precise nature and extent of English expansion under the reign of Edward IV, which is peculiarly important in the development of English overseas commerce. The article is completed by the full text of the various documents which are commented by the Author.

**Ramusio G. B.** (trad. par **Langlois & Simon J.**) - A la découverte de l'Amérique du Nord. Navigation et voyages [*De navigationibus ad inveniendam Americam Septentrionalem*]. 1 Carte h. t., 120 pp., André Hevet. Paris (1933). **a - 105**

Traduction d'une partie du troisième volume de l'ouvrage de Ramusio, écrit en italien vers 1553; elle contient une série de lettres, de discours et de rapports écrits ou prononcés par des personnages en vue de cette époque et se référant à la découverte de l'Amérique. Entre autre, on y trouve deux pièces illustrant les voyages de découverte de Verazzano et ses successeurs sur la côte orientale de l'Amérique, depuis Terre-Neuve jusqu'à la Floride et au Brésil.

**Richter B.** - Amundsen sur les côtes russes [*De exploratore* Amundsen *in litoribus russicis*]. (En russe). Photos. Sovj. Arkt. 2, 66-70. Leningrad (1935). **a - 106**

**Rose J. H.** - The Royal Navy and the Suppression of the West African Slave Trade (1815-1865). [*De regia classe Britannica deque suppressa servitute in regionibus Africae meridionalis (1815-*

*1865) Pars 1ª*]. 2 tables. Mar. Mirr. XXII, 1, 54-64. London (1936). **a - 107**

The first of two articles, in which author describes the work of British Preventive Squadrons off West Africa, the Cape, Brazil and the Caribbean Sea in their effort to suppress slave trade, on hand of data contained in some of the 1529 volumes, including the dispatches on this subject from 1815 to 1878 and relegated to the Archives of the British Foreign Office.

**Rothschild (de) H.** - Tour du Monde [*De navigatione per orbem*]. 284 pp., Hachette. Paris (1936). **a - 108**

**Roussier P.** - L'établissement d'Issiny, 1687-1702 [*De condita colonia Gallica, nomine* Issiny. *1687/1702*]. 12 pl., 1 carte h. t. 241 pp. Publ. Com. Hist. Scient. Afrique Occid. Franç., Sér. A, n. 3. Larose. Paris (1935). **a - 109**

Voyages de Ducasse, Tibierge et d'Amon à la Côte de Guinée publiés pour la première fois et suivis de la Relation du Voyage du Royaume d'Issiny du P. Godefroy Loyer. Relations des voyages des précurseurs de la création de la colonie française de la Côte d'Ivoire, complétées d'un historique très complet des évènements qui sont survenus dans ces parages à la fin du xvii-ème siècle.

**Rouzov L. V.** - Un des hivernages (sur le Cap Tchéljouskine) [*De hiematione in promunturio* Tscheljuskin]. 3 fig. Sovj. Arkt. 1, 57-62. Leningrad (1935). **a - 110**

**Ruthven J. F.** - Good Keeping of the Seas. A New History of « Elizabethan England », Afloat and Ashore [*De optima marium dominatione. Historia recens Angliae, temporibus reginae Elisabethae*]. Mar. Mirr. XXI, 2, 158-162. London (1935). **a - 111**

Review on some of the outstanding essentials of the co-ordinated History of the Elizabethan era in relation to Foreign Powers, four volumes of which, ranging from 1553 to 1583 are now in hands of the subscribers. The work has been undertaken by E. M. Tenison, Member of the Society of Nautical Research.

**Rutter Owen** (Ed.) - Mr Glasspoole and the Chinese Pirates [*De domino* Glasspoole *deque piratis Sinensibus*]. Engravings, 64 pp. The Golden Cockerel Press. London (1935). **a - 112**

Account of the history of piracy in the China seas since antiquity until nowadays.

**Samoilovitch R. L.** - La lutte pour l'Arctique [*De navigationibus in regiones Arcticas*]. (En russe). Nov. Mir III, 213-231. Moskva (1935). **a - 113**

**Samojlovitch R. L.** - De l'histoire des explorations arctiques [*De historia explorationum per Arctidem peractarum*]. (En russe). Za Osvoj. Arkt., 49-62. Leningrad (1935). **a - 114**

**Sempolowska S.** - Na Ratunek [*Auxilia quae lata sunt aëronavi* « Italia »]. 316 pp., Towarz. wydawn. « Roj ». Warszawa (1934). **a - 115**

Sur l'expédition du dirigeable « Italia » et les expéditions de sauvetage du « Krassine » et du « Malyghine ».

**Sherwood M.** - The Voyage of the « Tai-Mo-Shan » [*De navigatione navis* « Tai-Mo-Shan »]. Ill. photos. Geoffrey Bles Ltd. London (1935). **a - 116**

Description of a voyage undertaken by five young English naval officers in the spring of 1932 from the China station to Japan, Alaska, down the coast of America to Panama and through the canal into Atlantic.

**Smith D. B.** - The Naval Mutinies of 1797 [*De seditionibus navalibus A. 1797*]. Mar. Mirr., XXI, 4, 428-449; XXII, 1, 65-86. London (1935). **a - 117**

After a quotation of some previous works issued on the naval mutinies of 1797, A. communicates the results of his study of the records about the mutiny and draws some conclusions that are entirely different from those arrived at by other historians of the mutiny. In the XXII vol. are recorded the events at Spithead on Easter Sunday 1797 with special regard to the Fleet Petition and the proceedings on board the « Queen Charlotte ».

**Sottas J.**, transl. from the French by **Milne-Thomson L. M.** - A model of the Portus Ship [*Exemplar navis in portu Ostiensi*]. 3 pls. Mar. Mirr., XXI, 2, 144-152. London (1935). **a - 118**

This article concerns a ship that forms a part of a marble basrelief (Emperor Claudius) discovered in the ruins of a portico surrounding the ancient harbour of Ostia.

**Szymanski H.** - Deutsche Segelschiffe [*Naves germanicae velis euntes*]. 93 Abb., 158 Phot., 92 Taf., E. S. Mittler & Sohn. Berlin (1935). **a - 119**

Geschichte der hölzernen Frachtsegler vom Ende des 18. Jahrhunderts bis zur Gegenwart. Beschreibung verschiedener Typen, ihre Bau- u. Verwendungsart.

**Thomas M. S.** - Onze Ijslandvaarders in de 17 de en 18 de eeuw. Bijdrage tot de geschiedenes van de Nederlandsche handel en visscherij. [*Navigatores qui Islandiam exploraverunt sec. xvii et xviii*]. 17 Kart., Abb., 284 S. Mij. Enum. Amsterdam (1935). **a - 120**

Akademische Abhandlung. Das Werk ist auf gründliche Quellstudien in holländischen, dänischen und schwedischen Archiven aufgebaut und behandelt hauptsächlich Handel und Fischerei. Eine Anzahl Reproduktionen von Karten und verschiedenen Schiffstypen vom 17. und 18. Jahrhundert sind auch enthalten.

**Tornoe J. H.** - Hvitserk og Blåserk [« *Tunica alba* » *et* « *Caerulea tunica* » *nomina haec sunt duobus montibus quorum alter in Islandia, alter in Groenlandia*]. (In Norw., Engl., Rés.). 1 map. Norsk Geogr. Tidsskr., V, h. 7, 3, 429-443. Oslo (1935). **a - 121**

Old tales on the first discovery of Greenland. Identification of the two mountains called « Hvitserk » and « Blåserk » situated respectively in Iceland and Greenland which are said to have been sighted both at the same time from the sea by the first discoverer.

**Trolle A.** - Beretning om M/S « Thor's » Havundersøgelsetogt 1934 [*Relatio circa explorationem motonavis* « Thor »]. Publ. Østgrønland, 3. København (1935). **a - 122**

**Wafer L.** - A New Voyage and Description of the Isthmus of America [*De nova quadam navigatione et descriptione isthmi Americani*]. Ser. 2, LXXIII. Hakluyt Soc. Edw. Quaritch, Ltd. London (1934). **a - 123**

Edited by L. E. Elliot Joyce. Wafer was surgeon on the Buccaneering Expeditions in Darien, the West Indies and the Pacific from 1680 to 1688. Report on Wafer's secret (1698) and Davis's Expedition to the Gold Mines (1704).

**Warnsinck J. C. M.** - Tromp's « Considerations » of 1652 [*Considerationes a* Tromp *depromptae A. 1652*]. Mar. Mirr., XXI, 4, 452-453. London (1935). **a - 124**

Translation and comment of a paper, known as « Document n. 2 » in « Letters and Papers Relating to the First Dutch War », which illustrates Tromp's objective from the beginning of the war. The interpretation of some doubtful expressions is discussed.

**Wells F. H.** - How much Did Ancient Egypt Affect the Design of the Chinese Junk? [*De veteribus constructionibus navalibus aegyptianis pro constructione scaphae sinensis cui est nomen* « giunca »]. 2 draw. 2 photos. China Journ., XIX, 6, 300-313. Shanghai (1933). **a - 125**

On coincidences and similarities stated between the Egyptian and Chinese crafts.

**Werenskiold W. & Isachsen F.** - Cappelens verdensatlas [*Mappa mundi ad* Cappelens *pertinens*]. 50 feuilles, 215 fig., 200 + 48 pp. J. W. Cappelens forl. Oslo (1936). **a - 126**

**Wester Wemyss V.** - The Life and Letters of Admiral of the Fleet Lord Wester Wemiss [*De vita et epistulis Almiragii* Lord Wester Wemiss]. Eyre & C. London (1935). **a - 127**

**Wiese V. J.** - L'attaque de l'Arctique [*De navigationibus in regiones arcticas*]. (En russe). Ill. 205 pp., « Molod. Bolch. », Kiev-Odessa (1934). **a - 128**

Histoire de l'exploration de l'Arctique depuis les temps anciens jusqu'à nos jours.

**Ufficio Storico R. Marina** - Nozioni di Storia Navale, III [*Historia navalis. Notiones*]. 356 pp. Cappelli. Bologna (1935). **a - 129**

Continuazione dell'opera intrapresa dall'Ufficio Storico della Marina. Questo volume riguarda principalmente la guerra mondiale.

**Ufficio storico R. Marina** - Storia delle Campagne Oceaniche della R. Marina. Vol. I. [*Historia navigationum oceanicarum a Regia Classe peractarum. Vol. I^mo*]. 456 pp. Ministero Marina. Roma (1936). **a - 130**

**A. A. M. M.** - « A la gloire de la Marine à Voiles ». L'exposition de l'Orangerie [*De marina velica gallica*]. 3 fig. Ass. Amis Musée Mar., Bull. Trim., 3, 266-276. Paris (1935). **a - 131**

Promenade à travers l'exposition qui représente, dans un cadre relativement étroit, la 'période de la marine à voiles française quelque cent ans avant l'époque où la France eut vraiment une marine nationale et finissant à celui où les vaisseaux, tout en conservant leur gréement, reçurent des machines à vapeur'. L'Exposition a été tenue du 5 avril au 23 juillet 1935, à Paris.

**L. A.** - Un portolano inglese del 1665 [*De portulano anglico A. 1665*]. Universo, Sett. 768. Firenze (1935). **a - 132**

**An.** - Expositions de modèles [*Expositio navalis. Parisiis 1934/1935*]. Assoc. Amis Musée Mar., Bull. Trim., 4, 293-294. Paris (1935). **a - 133**

Brève description d'une exposition de modèles, de souvenirs et de peintures maritimes tenue à Paris en décembre–janvier 1934/35, de l'exposition d'une série de modèles de navires modernes à Quimper et de l'exposition de la guerre de Crimée à Londres tenues à la fin de l'année 1935.

**An.** - Découverte de nouveaux documents de Behring [*De inventis novis documentis ad* Behring *pertinentibus*]. (En russe). Bull. Arct. Inst., V, 8, 252. Leningrad (1935). **a - 134**

Note sur la découverte dans les archives de l'Académie des Sciences de la Russie Blanche de documents, ayant rapport aux célèbres expéditions de Behring en 1730–1740. Les documents seront publiés intégralement dans l'« Archive Rouge ».

**An.** - A Nordenskjöld's Sign Discovered on Cape Vega [*De quodam vestigio exploratoris* Nordenskjöld *in* Cape Vega]. (In Russ. & Engl.). Bull. Arct. Inst., V, 9, 291 & 310. Leningrad (1935). **a - 135**

Information from Captain Voronin on the discovery during the cruise of the « Jermak » in Vilkitski Straits in 1935 of a wooden post with a preserved inscription of A. Nordenskjöld.

**An.** - Unprecedented Voyage of the Cargo-Steamer « Rabotschij » [*De mirabili navigatione navis mercatoriae* « Rabotschij »]. (In Russ. & Engl.). 1 table on p. 341. Bull. Arct. Inst., V, 10, 342 & 369. Leningrad (1935). **a - 136**

Brief account of the first case of a double voyage from Arkhangheljsk to the mouth of Kolyma River and return in one navigation season.

**An.** Rapport de l'Acad. O. J. Schmidt à Paris sur la conquête de l'Arctique [*Relatio ab Academico* O. I. Schmidt *redacta de navigationibus in regiones Arcticas. Parisiis*]. (En russe). Bull. Arct. Inst., V, 12, 423. Leningrad (1935). **a - 137**

Bref compte-rendu, extrait du journal « Pravda » du 1 décembre 1935, du rapport présenté par l'Acad. Schmidt à l'Institut d'Océanographie de l'Université de Paris le 29 novembre 1935.

**An.** - Find of Belongings of the Expedition-Ship « Fridtjof Nansen » [*De repertis rebus ad navem* « Fridtjof Nansen » *pertinentibus*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 12, 449, 468. Leningrad (1935). **a - 138**

Information of the finding by the trawler « Spartak » of some belongings of the Norvegian expedition vessel « Fridtjof Nansen »; they have been lifted by a vessel from the bottom of the Barents Sea, in lat. 71°55' N. long. 45°40' E.

**An.** Die berühmte « Dana » gesunken [*De naufragio navis* « Dana »]. Dtsch. Fisch., – Rundschau, 13, 297-298. Bremerhaven (1935). **a - 139**

Zusammenfassender Bericht über den Schiffbruch der « Dana », des berühmten dänischen Forschungsschiffes am Sonnabend, den 22. Juni 1935, in der Gegend der Doggerbank.

**An.** - International Hydrographic Bureau Library - Bibliothèque du B. H. I. [*De bibliotheca officii hydrographici Internationalis*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 63. Monaco, Princ. (1935). **a - 140**

Information of the reception by the I. H. B. from a generous donor of the volumes of the « Connaissance des Temps » relating to the years 1687, 1702, 1710, 1719 and 1720, and of the possession by the Library of the Bureau of a very fine and absolutely complete collection of the Nautical Almanac from the first year of issue, namely 1767.

**An.** - Traces de l'expédition du « Roussanov » [*De vestigiis ad expeditionem* « Roussanov » *pertinentibus*]. (En russe). Meteorol. Vestn., 10/12, 241-242. Leningrad (1934). **a - 141**

## Navigatio plana et litorea - Navigatio astronomica - Instrumenta - Tabulae - Ephemerides - Navigatio radiogoniometrica - Studia pro navigatione.

**Aquino (de) R.** - A Regua cylindrica de Bygrave e as minhas Altitude and Azimuth Tables. Com uma exposição succinta da Nova Navegação altazimuthal e isoazimuthal pelas formulas e Tabuas em Tan Sec. [*De regula cylindrica a Bygrave inventa deque tabulis ipsius auctoris*]. Rev. Marit. Brasileira, Março e Abril. Rio de Janeiro (1935). **a - 142**

Principios basicos de la regna de Bygrave e descripçâo. O metodo de Modena para o traçado de una recta do azimuth e resoluçâo com as Tabuas que acompanhan « A Navegaçâo Hodierna com Logarithmos de 1633 ! ».

**Barlow E. W.** - Scintillation [*De scintillatione*]. Mar. Obs. XIII, 123, 101-102. London (1936). **a - 143**

Explanation of the changes of brightness. Scintillation of Planets. Scintillation in the telescope. Abnormal scintillation.

**Boella M.** - Alcune idee sulla stabilizzazione del rollio delle navi [*De stabilitate navium*]. 1 fig., Riv. Maritt. LXVIII, 12, 238-249. Roma (1935). **a - 144**

**Briggs I. J.** - Scientific Needs for Accurate Time-Service [*De condicionibus atmosphaericis providendis rationis auxilio absolutae et perfectae*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 56-58. Washington D. C. (1935). **a - 145**

After an enumeration of the many important lines of investigation which are dependent upon the accurate measurement of time, author illustrates the service of the American Bureau of Standards, which provides the standard-frequency signals, and the purposes they can be used for.

**Brooke Smith L. A.** under the direction of. . . A Handbook of Weather, Currents and Ice, for Seamen [*Liber manualis de re meteorologica, currentiis et glaciebus, ad usum navigatorum*]. Num. tables., 1 card., 154 pp. H. M. Stat. Off., London (1934). **a - 146**

The present handbook contains the most up to date information and method of arrangement of the data presented, concerning wind and weather systems of the ocean and tropical revolving storms, as well as a description of general oceanic currents and information on sea-ice. Numerous meteorological data are given as an appendix and a Sailor's Horn Card for the study of the progression of cyclones.

**Brown, Son & Ferguson (Ed.)** - Brown's Nautical Almanac 1936 [*Ephemerides nauticae a Brown redactae. A. 1936*]. 755 pp. Brown, Son & Ferguson Ltd. Glasgow (1935). **a - 147**

**Burton S. M.** - A Set of Nautical Tables for General Navigational Purposes [*De tabulis nauticis generalibus pro navigatione*]. George Philip & Son London (1936). **a - 148**

**Caillet-Bois P.** - Telémetros [*De telemetris*]. Bol. Centro Naval, LIV, 512, Mayo y Junio. Buenos Aires (1935). **a - 149**

**Castro H.** - Representación gnomónico-exaédrica de la esfera celeste y de la superficie terrestre con aplicación a la navegación ortodródomica [*Repraesentatio gnomonico-exaedrica sphaerae caelestis et superficiei terrestris pro navigatione ortodromica*]. An. Universitad de Madrid IV, 3. Madrid (1935). **a - 150**

**Charine G.** - Navire non-magnétique [*De navi quadam non-magnetica*]. (En russe). Sev. Morsk. Putj (Rec. Art. Hydrogr. & Navig.), I, 108-109. Leningrad (1934). **a - 151**

**Clissold & Tweddell** - Brown's Nautical Star Chart. [*Tabula stellarum*]. Brown, Son & Ferguson Ltd. Glasgow (1935). **a - 152**

Diagram of the position of the principal navigational stars on a Mercator projection of the celestial sphere.

**Cluett Sandford L.** - Offshore Position by Sextant Altitude of Mountain Peak [*Positio navis ex mensura altitudinis montis cuiusdam*]. 4 figs., & 1 diagr. U.S. Nav. Inst. Proc., LXI, 393, 1665-1669. Annapolis, Md. (1935). **a - 153**

On a simple formula and a diagram useful for determining the distance of a mountain peak that lies beyond the horizon.

**Cornisch V.** - Scenery and the Sense of Sight [*Quaestio de visione*]. 9 pls., 111 pp. Univ. Press, Cambridge (1935). **a - 154**

Author tries to establish the relationship existing between the visual impressions and the real dimensions of the view embraced by our eyes. The results of observations are summarized in 9 comprehensive plates; they have been obtained both in high mountains and on the sea shore.

**Crockett G. R.** - A Position Indicator Machine [*Apparatus qui punctum indicat*]. Naut. Mag. Aug. 123-127. Glasgow (1935). **a - 155**

**D'Ambrosio R.** - Il « Fusorario D'Ambrosio » come orologio universale specialmente adatto per la Marina e per l'Aviazione [*Agitur de apparatu cui nomen est « Fusorario d'Ambrosio ». De hoc agitur idem ac de horologio universo pro navigatione maritima et aeria*]. Atti Soc. It. Progr. delle Scienze - XXIII Riunione, II 259-262. Roma (1935). **a - 156**

L'autore descrive il suo *Orologio Universale Fusorario D'Ambrosio* che indica l'ora legale, quella media locale e la data per un luogo qualsiasi della Terra.

**Del Pino** - Navigazione costiera: discussione sul metodo da adottarsi a bordo per determinare il punto nave allorchè si hanno a disposizione soltanto due punti noti della costa [*Navigatio litorea: Discussio de rationibus adhibendis ad navis positionem determinandam quandoque duobus punctis tantum in litoribus constitutis uti fas est*]. 3 fig., Marina It., 19, 303-304. Genova (1934). **a - 157**

È indicato un metodo col quale il punto nave può essere determinato sempre con sufficiente approssimazione qualunque sia l'angolo di intersezione fra le visuali ai due punti. Dimostrata poi la convenienza di sostituire nella pratica di bordo questo metodo a quello consueto dei due rilevamenti si indicano i casi nei quali il metodo stesso è particolarmente raccomandabile.

**Dijèvre** - Point autour de Midi [*De altitudinibus circummeridianis*]. Rev. Marit., Juillet. Paris (1935). **a - 158**

Utilisation des hauteurs circumméridiennes pour la navigation moderne des navires rapides. Tableaux qui précisent la différence entre le passage au méridien et la culmination observée d'un navire en marche. Tables permettant un calcul rapide de la droite circumméridienne. Limites des circumméridiennes.

**Dzerdzeevskij V. L.** - Service du Temps et son travail dans l'Arctique [*De officio condicionibus atmosphaericis providendis in regione Arctica eiusque muneribus*]. (En russe). Sov. Arkt. 1, 31-34. Leningrad (1935). **a - 159**

**Ehlerding C. W.** - Das Beidrehen mit Dampfern in schwerem Wetter [*De decursu navium tempestatibus perdurantibus*]. Seewart, IV, 3, 121-123. Hamburg (1935). **a - 160**

Nach einigen allgemeinen Betrachtungen über die Wichtigkeit eines richtigen Manövers für die Sicherheit von Schiff und Menschenleben beim Beidrehen mit Dampfern in schwerem Wetter, illustriert Vf. seine Ausführungen mit der Beschreibung eines der Praxis entnommenen Falles eines Schiffes auf der Reise nach Ostasien in der Biskaya.

**Ehlerding C. W.** - Nächtliche Gestirnsbeobachtungen zur Bestimmung des Schiffsorts [*De nocturnis observationibus astronomicis ad navis positionem determinandam*]. 3 Taf. Seewart, IV, 6, 250-256. Hamburg (1935). **a - 161**

Beschreibung der vom Vf. seit 1930 unternommenen Beobachtungen, welche 132 verschiedene Reihen mit rund 1000 Einzelbeobachtungen umfassen, Anweisungen für den Aufbau und die Anwendung des Versetzungsdiagramms; Ungenauigkeiten bei Versetzungskurven; die Bedeutung der Kimm. Musterbeispiel dieser Nachtbeobachtungen.

**Ehlerding C. W.** - Die Verwendung des Funkpeilers in der Navigation [*De utendo radiogoniometro in navigando*]. 1 Taf. a. T. Seewart, V, 3/4, 101-104. Hamburg (1936). **a - 162**

Gewöhnliche Fehler bei sowohl optischen als Funkstrahlpeilungen bei wachsender Entfernung vom Peilobjekt. Anwendungsmöglichkeiten des Funkpeilers erläutert durch Beispiele, die den Vorteil des Funkpeilers hervorheben.

**Ehlerding C. W.** - Sternbeobachtungen zur Bestimmung des Schiffsortes bei Tageslicht [*De diurnis observationibus stellarum ad navis positionem determinandam*]. I Taf. Seewart V, 8/9, 261-264. Hamburg (1936). **a - 163**

Vorteile dieser Beobachtungen, Anweisungen. Kritische Bemerkungen zu der Arbeit von R. E. Thomas « Stowage ».

**Farvell R. F.** - Special Circumstances [*De locutione « special circumstances » idest « Condiciones abnormes »*]. U. S. Nav. Inst. Proc., LXI, 393, 1597-1608. Annapolis, Md. (1935). **a - 164**

On the danger of the phrase special circumstances included in the International Rules to avoid collisions. Examples.

**Favill J.** - Latitude by « H. O. 211 » [*De latitudine cum « H. O. 211 »*]. U. S. Nav. Inst. Proc., LXI, 391, 1258-1259. Annapolis, Md (1935). **a - 165**

On a calculation by the tables mentioned in the title with a method different from that evolved by Bowditch.

**Feldhusen W.** - Zur Auswertungstechnik einer Nebenmittagshöhe [*Ratio calculi altitudinis adhibendi ad meridianum*]. Seewart V, 2, 64-67. Hamburg (1935). **a - 166**

Vorschriften in Bezug auf die Beobachtungen und Rechnungen um die Zeitspanne zwischen Beobachtung und Auswertungsergebnis beim astronomischen Mittagsbesteck möglichst klein zu machen. Beschreibung einer neuen Methode, die in einfacher Tabellenform für jeden beliebigen Stundenwinkel sofort die gewünschte Meridianbeschickung liefert.

**Fioravanzo G.** - Manuale teorico pratico di cinematica navale [*Liber manualis de cynematica navali e ratione et practica*]. Tipo-lit. Acad. Nav. Livorno (1935). **a - 167**

**Forbes A.** - Offshore Navigation in Its Simplest form. Reviewed by Lieutenant Commander L. B. Austin, U. S. Navy [*Navigatio per mare altum maxima simplicitate*]. Eastern Science Supply Co. Boston (1935). **a - 168**

The book is designed primarily for yachtsmen. It is of small size.

**Freiesleben H. C.** - Amerikanische Vorschläge zur Berechnung der Höhenstandlinie [*De tabulis rationibusque americanis ad rectam altitudinalem calculandam*]. 3 Abb., Seewart. IV, 5, 215-219. Hamburg (1935). **a - 169**

Erörterung der im Supplement zu dem vom U. S. Naval Institute in Annapolis herausgegebenen Pilot Chart of the North Atlantic Ocean 1934 ausgearbeiteten Zusammenstellung von 20 verschiedenen Arten zur Berechnung der Höhenstandlinie. Nachteile. Neue Möglichkeiten. Beibehaltung der Semiversusformel.

**Freiesleben H. C. & Lange E.** - Gesetzmässige Verfälschung von Zeitbestimmungen bei bestimmten Wetterlagen [*De erroribus systematicis in atmosphaericis condicionibus definitis*]. 1 Abb., 1 Tab., Ann. d. Hydrogr., LXIV, 2, 60-64. Berlin (1936). **a - 170**

Es wird nachgewiesen, dass der Neubau der Deutschen Seewarte 1935 an warmen Sommerabenden Seitenrefraktionen verursachte, die die am Durchgangsinstrument der Seewarte astronomisch bestimmten Uhrstände um einige Tausendstel der Zeitsekunde vergrösserten. (Vf.).

**Frotscher W.** - Funkortung auf grosse Entfernungen durch Eigenpeilung [*De radiodeterminatione cuiusdam positionis, maximo spatio intercedente, per methodum autorelevamenti.*] 3 Abb. i. T., 3 Abb. a. T. Ann. d. Hydrogr., LXIV, 5, 213-215. Berlin (1936). **a - 171**

Nach einigen Bemerkungen über Azimutgleiche und bisherige Verfahren zur Bestimmung des eigenen Schiffsortes teilt Vf. zwei neue Verfahren mit Merkator karte und Seekarte sowie ihre Vorteile mit.

**Galante N.** - Lo sviluppo cilindrico isogonico inverso nei problemi di radionavigazione [*Methodus ad solvendas quaestiones quae ad radionavigationem pertinent*]. 4 ill., Riv. Aeronautica, XI, 7, 7-14. Roma (1935). **a - 172**

Si espone un metodo per risolvere i problemi di radionavigazione mediante tracciamenti di linee rette, purchè le distanze reciproche delle varie stazioni non superino le 500 miglia marine.

**Gheorghievskij N. N.** - Détermination du lever et du coucher du soleil et de la durée du jour dans le Nord [*De ortu, occasu, determina-*

*tis in regionibus septentrionalibus*]. (En russe). 11 tabl., 7 tabl., 6 graph. & 1 carte en append., 47 pp., Glavsevmorputi (Admin. Centr. Voie Marit. Nord). Leningrad (1935). **a - 173**

**Ghernet E. S.** - Méthode de détermination de la direction et de la valeur du déplacement des navires en dérive parmi les glaces [*Declinatio navium inter glacies navigantes. Agitur de ratione quadam quae calculos praebet quoad navis directionem eiusque amotiones a loco ad locum*]. (En russe). « Sadko » pod Sov. Flag. (« Sadko » sous Band. Sov.), 140-150. Glavsevmorputi. Leningrad (1935). **a - 174**

**Glazkov P.** - Some Examples of the Navigational Preciseness in the World War 1914-1918 [*Exempla referuntur quae pertinent ad perfectam absolutamque navigationem bello totius mundi perdurante 1914-1918*]. (In Russ.) Hydrogr. Ber. 3. Leningrad (1934). **a - 175**

**Grambow J. B.** - Der Unterschied zwischen loxodromischer und orthodromischer Distanz [*De differentia inter distantiam loxodromicam distantiamque orthodromicam*]. 3 Tab., Seewart, V, 5, 145-152. Hamburg (1936). **a - 176**

Die Arbeit beschäftigt sich mit der Feststellung der maximalen Wegersparnis, welche sich durch Vergleich des loxodromischen mit dem orthodromischen Wege ergibt. Ein absolutes Maximum wurde für einen Ost-West-Kurs auf Breite - 39°32' bei einem Längenunterschied von 180° gefunden. Die loxodromische Distanz beträgt hier 8329 Sm, die orthodromische 6056 Sm und somit die Wegersparnis 2273 Sm. (Vf.).

**Gruner P.** - Internationale Dämmerungsbeobachtungen während des Polarjahres 1932-33 [*De observationibus ab omnibus gentibus peractis quoad crepusculum anno polorum perdurante 1932-1933*]. Diagr., Taf., Mitt. Naturforsch. Ges., 1934, 185-213. Bern (1934). **a - 177**

**Haswell J. E.** - Horology. The Science of Time Measurement and the Construction of Clocks, Watches and Chronometers [*De horologis. Ars temporis mensurandi, oscillorum, horologiorum, chronometrorum construendorum*]. 107 fig., 19 pl., xvi + 267 pp. Chapman & Hall. London (1934). **a - 178**

One part of the volume is dedicated to the theory and construction of naval chronometers.

**Hellweg J. F.** - Time, Its Development, and Its Future [*Res quae ad temporis mensuram pertinent*]. Nat. Res. Counc., Amer. Geoph. Un., 16th Ann. Meet., Apr. 25-26, 1935, I, 58-60. Washington D. C. (1935). **a - 179**

Brief account of the development of the question of standard time on hand of records conserved in the Nautical Almanac Office in the early days. After the history of the development of the time-service, a brief synopsis of the present time-service at the Naval Observatory, Wash. is given.

**Hodges D. B.** - Radio Direction-Finding with the Cathode Ray Oscillograph [*De radiogoniometro cum oscillographo radio catodico praedito*]. South Afr. Journ. Sc. XXXII, Nov. 113-117. Johannesburg (1935). **a - 180**

Principle of the apparatus. The frame aerials. The oscillograph. Line up. Sense device. Photographic recording.

**Hughes & Son Ltd** - Stigmographe à micromètre [*De stigmographo micrometro praedito*]. 1 fig., 1 table, Rev. Hydrogr., XII, 2, 122. Monaco (1935). **a - 181**

Description de l'instrument qui évite la manoeuvre lente et fatiguante du vernier.

**Hulburt E. O.** - Experiments with the Bubble Sextant at Sea [*Experientiae in mari peractae sextantis auxilio libella praediti*]. Journ. Opt. Soc. Amer. XXIII. Rochester, N. Y. (1933). **a - 182**

Discouraging results of experiments made by the author at sea.

**Immler W.** - Loxodrome, Orthodrome, Stereodrome [*De loxodromia, orthodromia, stereodromia*]. 2 Tab., 1 Taf. a. T., Ann. d. Hydrogr., LXIII, 7, 275-281. Berlin (1935). **a - 183**

Vf. vergleicht loxodromische und stereodromische Distanz mit der orthodromischen Distanz zwischen zwei gegebenen Punkten, sowie orthodromische und stereodromische Distanzen zweier Aequatorpunkte in der polaren stereographischen Projektion, und fasst folgenderweise das rechnerische Ergebnis seiner Untersuchung zusammen: « In der Praxis bei entsprechender Wahl eines geeigneten stereographischen Kartennetzes kann die Stereodrome als Ersatz für die Orthodrome gewählt werden. » Er bespricht auch die Vorteile der Anwendung der stereographischen Karte.

**Immler W.** - Der Sonnenkompass und seine navigatorische Verwendung [*De buxida solari eiusque applicationibus nauticis*]. 2 Tab., 1 Taf. a. T., Ann. d. Hydrogr., LXIII, 11, 445-450. Berlin (1935). **b - 184**

In Bezug auf die von Herrn Prof. Maurer in ZFM 1929, S. 170 veröffentlichten Bemerkungen in denen angeführt wird, dass der Sonnenkompass in seiner Benutzung verschiedene Fehlerquellen aufweist und dass infolgedessen seine navigatorische Verwendung auf Schwierigkeiten stösst, fügt Vf. hier noch andere Betrachtungen zu, welche zu noch grösserer Vorsicht bei Benutzung des Sonnenkompasses führen, besonders in Bezug auf die Luftschiffahrt.

**Kimura S.** - Information about a New Artificial Horizon Attached to the Sextant [*Notitiæ circa horizonta novum cum sextante colligatum*]. (In Jap.). Suiro Yôhô (Hydrogr. Bull.) 14, 381-388. Tokyo (1935). **a - 185**

A ball-shaped case containing a pendulum horizon.

**Kreutzer K.** - Zur Ableitung der Näherungsformel für die loxodromische Beschickung [*De formula loxodromiae*]. 1 Abb., Seewart V, 8/9, 265-267. Hamburg (1936). **a - 186**

A. Einfache Ableitung der Formel $\mathrm{tg}\,u = \mathrm{tg}\,{}^{1}/_{2}\,\Delta\,\lambda\,.\,\sin\varphi\,m$. B. Ableitung der vollständigen Beschickungs formel ohne Napiersche Gleichung.

**Lazzarini A.** - In tema di Effemeridi [*De Ephemeridibus*]. Riv. Maritt., LXVIII, 10, 21-27. Roma (1935). **a - 187**

Alcune osservazioni in difesa delle Effemeridi italiane così come sono ora costituite.

**Lecoq G.** - Détermination de l'angle de route et de la distance orthodromique sur les cartes où l'image de tout grand cercle est une droite [*Constitutio maritimi cursus et distantiae in chartis gnomonicis*]. 4 fig., 3 pp., Impr. Nationale. Paris (1935). **a - 188**

**Lueth F.** - Ueber das Beobachten mit dem Libellensextanten [*De observationibus peragendis sextantis auxilio libella praediti*]. 1 Tab., Seewart, IV, 3, 117-121. Hamburg (1935). **a - 189**

Grundsätzliche Schwierigkeit beim Beobachten über dem künstlichen Horizont. Vf. nimmt Stellung zu dem im Heft 1, IV des «Seewart» veröffentlichten Bericht des Lloydoffiziers Jacobick. Er bespricht ausserdem die geeigneten Fälle in der Praxis, in welchen die künstlichen Horizonte anwendbar sind, und berichtet auch über die Ergebnisse praktischer Beobachtungen, die er mit einem Trommelsextanten der Firma Platt mit angesetztem Libellenkasten (System Coutinho) vom 8. Juli bis zum 19. November 1934 unternommen hat.

**Lustie A. O.** - A New Track to the Orient [*Cursus maritimus novus ad regiones orientales*]. U. S. Nav. Inst. Proc., LXI, 393, 1607-1608. Annapolis, Md (1935). **a - 190**

Author advises to follow a more northerly route – across the Pacific – than is ordinarily taken by westbound vessels between the ports of Columbia River, Grays Harbor, Puget Sound to ports of Japan and North China.

**Matussevic N. N.** - Récension du travail de L. L. Gavrichev « Détermination de la réduction de la longitude déterminée en mer sur la base des résultats des observations de latitude près du méridien » [*Judicium operis ab* L. L. Gavrischev *redactae cuius titulus est: Determinatio reductionis longitudinalis quae in mari obtinetur ex latitudinis observationibus apud meridianum*]. (En russe). Glavsevmorputj, II, 107-116. Leningrad (1935). **a - 191**

**Matussevic N.** - On Fixing the Position of a Ship by means of two Angles [*De navis positione per duos angulos tantum calculata*]. (En russe). Zapiski po Hidrogr., 1, 40-56. Leningrad (1934). **a - 192**

**Meldau-Steppes** - Lehrbuch der Navigation. 2. Aufl. [*Liber de arte navigandi. Editio II°*]. Bremen (1935). **a - 193**

Diese neue Auflage ist besonders in Bezug auf den II. Teil (den Magnetkompass, die neuzeitlichen Instrumente und das Funkpeilwesen) erweitert worden. Der I. Teil behandelt, wie früher, ohne grössere Veränderungen oder Erweiterungen, die Grundlagen der Kartenprojektion und die Entwicklung der Karten, die astronomische Navigation und Gezeitenerscheinungen.

**Naccari G.** - Atlante astronomico. [Atlas astronomicus]. (Terza edizione rinnovata ed ampliata dal dott. Attilio Colacevich, con prefazione del prof. Giorgio Abetti). xvi-136 pp., 71 tav. f. t. Tip. Stabil. della Casa Editrice dott. Francesco Vallardi, Milano (1935). **a - 194**

È opera di divulgazione. Pur conservando le caratteristiche e l'ordinamento datovi dal prof. Naccari, è stato possibile al dott. Colacevich di rinnovare in gran parte le Tavole, aggiornando anche la parte descrittiva la quale, ad illustrazione e maggior intendimento delle Tavole stesse, costituisce un breve trattato di Astronomia elementare.

**Neuberg H.** - Bemerkungen zu G. Boljahn « Sichtmessungen auf See an der Kimm » [*De observationibus a* G. Boljahn *peractis*]. 1 tab., Ann. d. Hydrogr., LXIII, 4, 176-177. Berlin (1935). **a - 195**

Einige Bemerkungen, in welchen uns Vf. darauf aufmerksam macht, dass die in der Boljahnschen Abhandlung entwickelte Kimmethode der Sichtmessung nur einen beschränkten Anwendungsbereich hat.

**Nobile V.** - Sulla possibilità di nuovi indirizzi della teoria della refrazione astronomica e di occasionali contributi alla fisica dell'atmosfera. [*Ratio refractionis astronomicae. Contributiones ferendae in Physicam atmosphaericam.*]. Nota I e II. Atti R. Acc. Naz. Lincei – Rend. Cl. Sc. fis., mat. e nat., serie VI, v. XXI, fasc. 9-10, 615-620, 675-678. Roma (1935). **a - 196**

Premesso come la costruzione di una teoria rigorosa della refrazione astronomica si trovi presto arrestata nel suo sviluppo a causa della insufficienza dei dati sulla costituzione fisica dell'atmosfera e notato come le ipotesi avanzate per rimediare a quella insufficienza abbiano carattere di arbitrarietà e di incertezza, si dimostra qui come da una inversione del processo tradizionale siano da attendersi decisivi progressi sia nel problema geofisico (costituzione dell'atmosfera) che in quello che interessa l'astronomia.

**Oellrich H.** - Segler-Reisen von Europa nach Australien und zurück (1934-35) [*De navigationibus navibus velicis peractis ab Europa in Australiam et contrarie*]. 3 Taf. a. T. Seewart, V, 3/4, 94-101. Hamburg (1936). **a - 197**

Ausreisen, Heimreisen von 18 Schiffen. Ausreisen eines Seglers mit Hilfsmotoren «Magdalene Vinnen». Frühere Veröffentlichungen Seew. 1933, 266-268; 1934, 207-210; 1935, 9-10.

**Pacher D. M.** - La posibilidàd de emplear el localizadór acústico en la navigación [*De utendo localizatore acustico in navigando*]. Rev. Gen. de Marina. Jun. 873-880. Madrid (1935). **a - 198**

**Preypich N.** - New Tables of Augmented Precision for the Computation of Altitudes and Azimuths [*Tabula nova perfecta et absoluta ad altitudines calculandas et* azimut]. (In Russ). Hydrogr. Ber. 2. Leningrad (1935). **a - 199**

**Preypich N.** - The Application of Ahmatov's Tables for the Calculation of Latitude and Longitude [*De applicationibus tabularum ab* Ahmatov *redactarum ad calculum latitudinum et longitudinum*]. (In Russ.). Hydrogr. Ber. 3. Leningrad (1935). **a - 200**

**Protopopov J.** - The Calculation of the probable Duration of the Navigational Period in the Estuaries [*De calculanda navigatione in aestuariis*]. (In Russ.). Hydrogr. Ber. 3. Leningrad (1935). **a - 201**

**Reicke A.** - Vermag eine Meeresströmung auf die Schraubenumdrehungen einzuwirken? [*Currentia marina influit in volutationes helicae?*]. Seewart, IV, 3, 126. Hamburg (1935). **a - 202**

Ein Beitrag zu dem gleichnamigen Aufsatz im Jahrgang 1934, G. 21, des «Seewart».

**Reicke A.** - Vereinfachtes Grosskreissegeln [*Explanatio navigationis per circulum maximum*]. 1 Abb., Seewart, IV, 4, 162–168. Hamburg (1935). **a - 203**

Vf. teilt einige einfache Berechnungsverfahren mit, die sich besonders für die praktische Nautik eignen. Kompositsegeln. Berechnung der Zwischenpunkte.

**Sazaki T.** - A New Slide–rule Available for Fixing the Ship's Position [*Ratio nova ad navis positionem determinandam*]. (In Jap.). Suiro–Yôhô (Hydrogr. Bull.), 14, 289-294 Tokyo (1935). **a - 204**

**Sazaki T.** - Some Ideas on the Altitude–azimuth Table and Calculated Latitude by Ex-meridian Observation [*Notae de tabula pro altitudine et* azimut *atque etiam de tabula pro latitudine circummeridiana*]. (In Jap.). Suiro Yôhô (Hydrogr. Bull.) 14, 425-434. Tokyo (1935). **a - 205**

**Schnegelsberg L.** - Ueber die Auswertung von Höhenwinkelmessungen in der Praxis [*De utendis mensuris altitudinis*]. Seewart, V, 2, 60-64. Hamburg (1936). **a - 206**

Betrachtungen über die bei dieser Methode auftretenden Fehler oder Ungenauigkeiten und Möglichkeiten sie zu vermindern oder zu eliminieren. Bedeutung und Vorteil dieser Methode im Vergleich mit der astronomischen Berechnung.

**Shankland E. C.** - Sur l'utilisation des verres colorés en jaune [*De utendis vitris flavis*]. Rev. Hydrogr. XIII, I, 102. Monaco (1936). **a - 207**

Voir même Rev. XII, 1, 180. L'A. fait savoir au B. H. I. que ces verres jaunes sont utilisés pour éclairer les ponts sur la Tamise. Description des feux et des lampes.

**Sheehan J. M.** - Surface Navigation with the Bubble Octant [*Navigatio ad superficiem, octantis auxilio bulla praediti*]. 5 figs., U. S. Nav. Inst. Proc., LXI, 391, 1228–1232. Annapolis, Md. (1935). **a - 208**

On some observations made from the Author with a bubble octant obtained from the Bureau of Aeronautics. Examples. The results obtained show that the instrument can be of great assistance to the navigator under many conditions. The accuracy is lessened under adverse conditions of a rolling ship.

**Spanó D.** - Rette d'azimut e rette ortodromiche [*Recta azimutalis rectaeque orthodromicae*]. Ann. R. Ist. Sup. Nav., IV, 2, 189–217. Napoli (1935). **a - 209**

Cenno storico. Procedimenti più adatti per l'impiego dei rilevamenti R. G. nella determinazione del punto–nave, considerando limiti, determinati caso per caso nella discussione.

**Squire F. M.** - Brown's Time and Speed Tables [*De tabulis pro velocitatibus quae a* Brown *nomen capiunt*]. 53 pp., Brown, Son & Ferguson, Ltd. Glasgow (1935). **a - 210**

These tables give 1) the speed required to go a given distance in a given time and 2) the time required to go a given distance at a given speed. Two supplemental tables 1) convert hours into days and hours 2) give the proportional parts for distances 1-4 miles for interpolation in the time and speed tables.

**Steppes O.** - Ortsbestimmung durch sogenannte Horizontalwinkel (Aufgabe der vier Punkte) [*Locorum determinatio per angulum horizontalem*]. 1 Taf. a. T., 4 Tab., Seewart, IV, 5, 204–210. Hamburg (1935). **a - 211**

Klärung einiger bei der für Ortsbestimmung benutzten Doppelwinkelmessung oft vorkommenden Fehler.

**Strong H. M.** - Universal World Time [*De hora universa*]. Geogr. Rev., XXV, 3, 479–484. New York (1935). **a - 212**

This paper has been written from material gathered from scattered sources in the Library of Congress and the Library of U. S. Coast and Geodetic Survey, and its purpose is to explain the necessity for a systematic standardization of local times, to give a brief historical outline of the development of such standardization, and to indicate with suitable references the present status of international time. Author deals especially with the following subjects: The Greenwich meridian used first for purposes of navigation; movement for adoption of standard time; the International Meridian Conference; universal world time; the date line; daylight-saving time.

**Tonta L. & Modena E.** - Elementi di Navigazione astronomica [*De navigatione astronomica*]. 179 fig., xiv + 493 pp., R. Giusti. Livorno (1936). **a - 213**

È la terza edizione del ben noto libro di testo della R. Accad. Navale, aggiornata dal Comandante Modena. V'è aggiunto un capitolo sulla teoria della retta d'azimut. È stato specialmente sfrondato il capitolo riguardante la correzione del cronometro.

**Ullrich W.** - Ueber Kompassstörungen durch Blitzschlag [*De buxidae perturbationibus fulgurum causa*]. Seewart, IV, 4, 168-174. Hamburg (1935). **a - 214**

Charakteristische Folgeerscheinungen an Bord durch den Blitzschlag. Erörterung einiger Beispiele. Nötige Massnahmen um den Kompass wieder im Stand zu setzen. Aufforderung an Schiffsoffiziere und Kapitäne ihre Erfahrungen mitzuteilen.

**Vanssay (de) P.** - Tracé de la droite d'azimut sur une projection de Mercator [*De adumbratione rectae azimutalis in proiectione Mercatoriana*]. C. R. Acad. Sc., CCI, 9, 463-465. Paris (1935). **a - 215**

L'A. décrit une méthode de construction de la droite d'azimut sur une projection de Mercator, en appliquant laquelle, au lieu de calculer, comme on le fait généralement la différence entre les azimuts loxodromiques et orthodromiques du radiophare ou du navire, on calcule la distance $\delta$ entre le radiophare (ou le poste radiogoniométrique) et le point de rencontre du méridien de ce point avec la tangente à l'orthodromie au navire dans le cas d'un radiophare ou avec une parallèle menée du navire à la tangente à l'orthodromie au poste dans le cas d'un poste radiogoniométrique. Avec cette méthode on obtient des résultats particulièrement simples pour les deux premiers termes du développement.

**Vanssay (de) P.** - Le point à la mer par relèvements radiogoniométriques [*De puncto relevamentis radiogoniometricis obtento*]. 3 tabl. 3 diagrs., 13 fig., Rev. Hydrogr., XII, 2, 17-30. Monaco (1935). **a - 216**

Suite à un article du même auteur dans cette revue (Tome X, 2, 1933). Calcul du point. Emploi d'une projection de Mercator.

**Vielhaben Th.** - Zur Frage der Stabilitätsberechnung [*De calculis pro stabilitate*]. 1 Abb., Seewart IV, 6, 256-266. Hamburg (1935). **a - 217**

Kritische Bemerkungen zu dem in Heft 2, 1935, d. Ztschr. von K. J. Jacobick verfassten Artikel.

**Weems P. V. H.** - Why the Celestial Triangle ? [*Quare positionis triangulus ?*]. Naut. Mag. Aug. 153-156. Glasgow (1935). **a - 218**

**Weems P. V. H.** - Analyse des erreurs dues aux accélérations de la bulle [*De erroribus qui derivant a bullae acceleratione*]. Tabl., 3 fig., Rev. Hydrogr. XIII, 1, 78-83. Monaco (1936). **a - 219**

Résultats de maintes observations faites au sextant à bulle.

**Welch W.** - Page Captain Lecky and Fallacy of the Time Sight [*De longitudinis determinationibus*]. U. S. Nav. Inst. Proc., LXI, 389, 1009-1012. Annapolis, Md. (1935). **a - 220**

Some arguments simply exposed, but vivid, against two articles of Commander Mason in the Proceedings, pages 754, June 1934 and 76, January 1935.

**Wellmann F.** - Rundschwoiungen während der Reise und ihre Auswertung zur Erkenntnis der magnetischen Eigenschaften des Schiffes [*De buxidae volutationibus navigatione perdurante earumque aestimatione ad cognoscendas peculiaritates magneticas navis*]. 1 Taf. Seewart, IV, 3, 112-115. Hamburg (1935). **a - 221**

Der Regelkompass von D. Halle, seine Anwendung auf zwei längeren Reisen und die dabei gewonnenen Ergebnisse in Bezug auf: die Wirkung des festen Längsschiffspoles und die beiden Hauptfaktoren der Deviation. Beigefügte Bemerkung der Deutschen Seewarte über den Wert dieser Beobachtungen.

**Williams C. H.** - Dead Reckoning [*Punctus existimatus*]. 6 figs. Mar. Obs. XIII, 123, 90-100. London (1936). **a - 222**

History of the various methods of dead reckoning until present. Explanation of the meaning of the word dead by the late Mr Harries of the Meteorol. Off. Nav. Division. Originally it was deduced or abbreviated ded, which was corrupted in dead.

**Williams J. D. L.** - Rapporteur pour le tracé des droites de hauteur [*Apparatus ad rectae altitudinis adumbrationem delineandam*]. 1 fig. Rev. Hydrogr. XIII, 1, 144-145. Monaco (1936). **a - 223**

**Willis E. J.** - The Methods of Modern Navigation [*Rationes hodiernae artis navigandi*]. viii + 165 pp. Brown, Son & Ferguson Ltd. Glasgow (1935). **a - 224**

The advances made by nautical astronomy. Application of mathematics, especially the calculus, to navigational problems. This is the 2nd edition of the book which was published by D. Van Nostrand Co. New York.

**Winter H.** - Seit wann ist die Missweisung bekannt? [*Quam pridem declinatio cognoscitur?*]. 6 Abb., Ann. d. Hydrogr., LXIII, 9, 352-363. Berlin (1935). **a - 225**

Nach einer kurzen Uebersicht verschiedener Belege für die Entdeckung der Missweisung mit besonderer Berücksichtigung derjenigen von Peregrinus folgt ein Referat von Peregrinus' Werk, wobei auch verschiedene Kapitel im vollen Wortlaut mit kritischen Bemerkungen vom Vf. wiedergegeben werden. Es folgen auch einige Beobachtungen über den Magnetstein und die Magnetnadel sowie ein Nachtrag über die Zählung und Zählrichtung der ersten Kompasse und über den Gebrauch von Quecksilber in der alten Seefahrt.

**Wirtz C.** - Untersuchungen über die Kimmtiefe an der Nordküste Schleswig-Holsteins [*Investigationes in depressionem horizontalem ad litus septentrionale* Schleswig-Holstein]. 8 Tab., Ann. d. Hydrogr. LXIII, 9, 340-349. Berlin (1935). **a - 226**

1. Ziel der Beobachtungen; Beobachtungsort und Instrument. 2. Die Kimmtiefenmessungen 1933; Gezeitenwirkung. 3. Kimmtiefe und Tageszeit, Refraktionskoeffizient und Temperaturgradient. 4. Die Tagesperiode des Refraktionskoeffizienten: Luft-und Wassertemperatur. 5. Die Höhenmessungen des Leuchtturms Süderhöft; der Koeffizient der terrestrischen Refraktion. 6. Die Kimmtiefenmessungen 1932, Anwendung von Bordmethoden. 7. Die statische Behandlung des Gesetzmässigen und des Zufälligen im Kimmphänomen. Mathematisches. 8. Instrumentelle Anmerkung. Schlussnotiz.

**Air Ministry, Meteorological Office London** - The Fishery Barograph: a Note on the Use of the Barograph in anticipating Gales and Instructions for the Care and Maintenance of Barographs lent to Fishing Communities. II Ed. No. 333 [*De barographo ad piscandum*]. Pls., 10 pp. Meteorol. Off. London (1935). **a - 227**

**British Meteorological Office** - Chart of the Western North Atlantic [*Charta nautica pro regione occidentali Oceani Atlantici Nordici*]. 1 chart. Mar. Obs., XIII, 121, append., H. M. Stat. Off., London (1936). **a - 228**

Chart showing the North Atlantic Lane Routes in force during January, 1936.

**Bureau de longitudes** - Annuaire pour l'an 1936 publié par. . . avec des notices scientifiques. [*Annuarium pro A. 1936. Editum a* Bureau de longitudes *cum notis scientificis*]. 3 pl., 1 carte h. t. vii–577 pp. Gauthier-Villars, Paris (1935). **a - 229**

**Deutsche Seewarte** - Bericht über die 58. Chronometer–Wettbewerbprüfung (1934/35) in der Deutschen Seewarte [*Relatio de LVIII° concursu chronometrorum (1934-35) in* Deutsche Seewarte]. 1 Tab., 1 Taf. a. T. Ann. d. Hydrogr., LXIII, 7, 281-282. Berlin (1935). **a - 230**

Bericht und graphische Darstellung der Ergebnisse der Prüfung von 18 Instrumenten.

**Deutsche Seewarte** - Beiträge zur Küstenkunde. Die Lombok-strasse mit Ampenan, Laboean Fring, Benoa, Sanoer Feloek, Padang und Laboean Amock [*Contributiones in litora cognoscenda*]. 3 Taf. a. T. Seewart, IV, 5, 223-240 (1935). **a - 231**

Quellen. Lage und Ausbreitung der Lombok- Strasse. Landmarken, Ankerplätze und Untiefen. Südostküste von Bali. Die Penide-Inseln. Westküste von Lombok. Leuchtfeuer, Winde und Niederschläge .Gezeiten. Gezeitenstrom. Monsunstrom. Grössere Orte. Die Durchsteuerung der Lombok-Strasse. Nachtrag zum Abschnitt Gezeitenströme.

**Deutsche Seewarte** - Vergleiche von Dampferwegen durch das Arabische Meer während beider Monsunzeiten [*Comparatio inter diversos cursus maritimos per mare arabicum*]. 1 Taf. Seewart, IV, 6, 242-250. Hamburg (1935). **a - 232**

Der für den Indischen Ozean von der Deutschen Seewarte ausgewählte günstigste Weg. Vergleich der Erfahrungen anderer Schiffe im Nordostmonsun auswärts, im Südwestmonsun heimwärts. Zusammenstellung der Angaben in Tabellen, Besprechung der Wege.

**Great Britain Meteorological Office** - A Handbook of Weather, Currents und Ice, for Seamen. (M. O. 379) [*Liber manualis de condicionibus atmosphaericis providendis, currentiis et glaciebus*]. Maps, tabl., diagr., 154 pp. London (1935). **a - 233**

**Hydrographic Department** - Note on the Use of the Mercer Chronograph and Equipment [*De utendo chronometro* Mercer]. Ills. 5 pp. Hydrogr. Dept. London (1932) **a - 234**

**Instituto y Observatorio de marina San Fernando** - Almanaque Nautico para el año 1936 [*Manachus nauticus pro A. 1936*]. 662 pp., Vol. CXLV. Obs. Mar., San Fernando (Cadiz) (1934). **a - 235**

Publicado de orden de la superioridad por el Instituto y Observatorio de Marina de San Fernando (Càdiz) para el meridiano de Greenwich.

**Instituto y Observatorio de marina San Fernando** - Almanaque Nautico para el año 1937 – Estaciones Radiohorarias (supliemento) [*Manachus nauticus pro A. 1937. Stationes radiohorariae. (Supplementum)*]. xv + 655 pp., Vol. CXLVI. Obs. Marina. San Fernando (Cadiz) (1935). **a - 236**

**Instituto y Observatorio de marina San Fernando** - Estaciones radiohorarias, corregidas hasta al 1º de junio 1935 [*Stationes radiohorariae. Editio correcta usque ad diem 1 mensis Junii 1935*]. 8 diagr., 27 pp., Obs. Marina, San Fernando (Cadiz) (1935). **a - 237**

**Istituto Idrografico della Regia Marina** - Effemeridi astronomiche ad uso dei naviganti per l'anno 1935 [*Ephemerides astronomicae ad usum navigatorum pro A. 1935*]. vii + 217 pp. Tip. dell'Istituto Idrografico della Regia Marina. Genova (1934). **a - 238**

Il volume consta di due parti: nella prima si trovano riuniti gli elementi relativi al Sole, alla Luna ed ai grandi pianeti, poi quelli relativi alle stelle fisse, ed un breve accenno agli eclissi di Sole e di Luna. La seconda parte contiene diverse tavole di uso corrente nei calcoli della navigazione astronomica.

**Marine Superintendent** - The Marine Observer, 1936 [*Periodicus* The Marine Observer *1936*]. Mar. Obs., XIII, 121. 3. H. M. Stat. Off. London (1936). **a - 239**

Account of the programme and the articles to be published in « The Marine Observer », 1936.

**Société Anonyme des Instruments de Géodésie H. Wild** - Nouveau Sextant H. Wild [*De novo quodam sextante* H. Wild]. 1 table, Rev. Hydrogr., XII, 2,121-122. Monaco (1935). **a - 240**

Description de l'instrument.

**Société Française Radio-Electrique** - Détecteur d'obstacles type S. F. R. – D. 16 [*Apparatus qui obstacula detegit, typus S. F. R. – D. 16*]. 8 fig. dont 3 h. t. Rev. Hydrogr. XIII, 1, 116-121. Monaco (1936). **a - 241**

L'inventeur est M. Ponté. L'instrument permet de détecter un obstacle à 7 km. On peut encore déceler un bateau de pêche à 3 km. et une bouée à 1 km. 500.

**U. S. Bureau of Standards** - Directional Radio as an Aid to Marine Navigation [*Radiodirectio ac auxilium navigationi ferendum*]. Journ. Franklin Instut. March. 365. Philadelphia, Pa. (1935). **a - 342**

On U. S. radiolights and radiogoniometers. Results of experiences. The present situation.

**An.** - Rostschutz für Messgeräte und Instrumente [*Protectio apparatuum pro mensurationibus*]. Allg. Vermess.-Nachr. 11. Okt. 524. Liebenwerda (1935). **a - 243**

**An.** - Nautical Ephemerides – Ephémérides nautiques [*Ephemerides nauticae*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr., Int., III, 64. Monaco (1935). **a - 244**

Provisional list of countries which publish nautical ephemerides with the date of the inauguration of the publication.

**An.** - Centralisation of Notices to Mariners in the Principal Ports of the World – Centralisation des Avis aux Navigateurs dans les ports principaux [*Agitur de monitionibus ad usum navigatorum in praecipuis orbis portibus colligendis*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., IV, 79-87. Monaco (1935). **a - 245**

Resolution 36 and 36a of the 1929 Internationa- Hydrographic Conference (Repertory of Technical Resolutions, 1930, p. 40, nº 21, paragraphs 1 to 5). The present is a provisional list of the Ports where the centralisation Service is operating with the addresses of the centralizing Offices and lists of the Notices to Mariners, which cancels the lists published previously in « International Hydrographic Bulletin, XI, 1930, p. 246; Circular Letter nº 9H, 18. XII, 1933 and Supplements A, B, C & D; Circ. Lett. nº 2-H, 12, III, 1934; and « Int. Hydrogr. Bull. », nº 1, 1935, p. 3).

**An.** - E. D., P. D., P. A. Dangers – Dangers E. D., P. D., P. A. [*Pericula E. D., P. D. et P. A.*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., IV, 91. Monaco (1935). **a - 246**

(See also: « Petermanns Mitteilungen, Juni, 1935, S. 139). Dangers of doubtful existence with reference to the Podesta Island (32° 14' S. 89° 09' W.) and to the Nimrod Islands group. (nº 249 of the General List published by the I. N. B.).

**An.** - Units of Length – Nautical Mile – Unités de longueur – Mille marin [*Longitudinis unitates. Miliarium marinum*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Int. Hydrograph., V, 104. Monaco (1935). **a - 247**

Account of the official information received by the International Hydrographic Bureau from the U. S. Hydrographic Office and the U. S. Coast and Geodetic Survey, in order to inform that a nautical mile equal to 1852.248 meters used for years, is still in use in the U. S. A. Navy.

**An.** - Centralisation of Notices to Mariners in the Principal Ports of the World-Centralisation des Avis aux Navigateurs dans les ports principaux [*Agitur de monitionibus ad usum navigatorum in praecipuis orbis portibus colligendis*]. (In Engl. & French). 1 table, Int. Hydrogr. Bull. – Bull. Hydrogr. Int. VI, 111-119. Monaco (1935). **a - 248**

Resolutions 36 and 36a of the 1929 International Hydrographic Conference (Repertory of Technical Resolution, 1930, p. 40, nº 21, paragraphs 1 to 5). Revised list of the Ports where the Centralisation Service will be operating in 1936 with the addresses of the centralizing offices and lists of the countries which send their notices to each. The list contains all information received at the International Hydrographic Bureau up till last December 1935.

**An.** - Exhibition of Instruments – Exposition d'Instruments [*De instrumentis. Expositio*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., VI, 119-120. Monaco (1935). **a - 249**

List of additional instruments received by the International Hydrographic Bureau for its permanent exhibition.

**An.** - Notice to Mariners – Avis aux Navigateurs [*Notitia ad usum navigatorum*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull Hydrogr. Int., VI, 124. Monaco (1935). **a - 250**

Information on the establishment of a fog signal of the TYPHON system in the Sea of Marmara at Marmara Islands - Hairsiz-Ada Islet.

**An.** - Notices to Mariners – Avis aux Navigateurs [*Monitiones ad usum navigatorum*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., 1, 5. Monaco (1936). **a - 251**

Information on the reorganization of the publication of the Notices to Mariners issued in the Commonwealth of Australia and in the Territories under its control.

**An.** - Centralisation of Notices to Mariners in the Principal Ports of the World – Centralisation des Avis aux Navigateurs dans les ports principaux [*Agitur de monitionibus ad usum navigatorum in praecipuis orbis portibus colligendis*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., I, 6-7. Monaco (1936). **a- 252**

(See « Int. Hydrogr. Bull. », VI, p. 111, 1935). List concerning the centralisation of Notices to Mariners, received during the month of January 1936 by the International Hydrographic Bureau. Corrections to be inserted in the list of ports in which the Centralisation Service operates.

**An.** - Notices to Mariners by W/T – Avis aux Navigateurs télégraphiques [*Monitiones ad usum navigatorum per telegraphum*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., II, 23. Monaco (1936). **a - 253**

Information on a letter of the Hydrographer of Equador containing the notices that the Naval W/T stations HGG will give Notices to Mariners as soon as NAA (Washington, Arlington) has given the meteorological report.

**An.** - Centralisation of Notices to Mariners in the Principal Ports of the World – Centralisation des Avis aux Navigateurs dans les ports principaux [*Agitur de monitionibus ad usum navigatorum in praecipuis orbis portibus colligendis*]. (In Engl., & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., II, 23-24. Monaco (1936). **a - 254**

(See « Int. Hydrogr. Bull. », I, p. 6, 1936). Further information concerning the centralisation of Notices to Mariners in ports of the Commonwealth of Australia, in the Oriental Republic of Uruguay, Italy, and Great Britain.

**An.** - Fog Dissipation [*Caliginis dissipatio*]. Journ. Franklin Instit. March 262. Philadelphia, Pa (1935). **a - 255**

**An.** - Standard Time throughout the World [*De universa hora legali*]. Journ. Franklin Instit. July, 131. Philadelphia, Pa (1935). **a - 256**

**An.** - The Marine Observer's Log [*Ephemeris nautica ad « Marine Observer » pertinens*]. Mar. Obs. XIII. London (1936). **a - 257**

n° 121 (January, February and March).

Notes and Navigation of Jomard Entrance (Louisiade Archipelago) and Adjacent Islands. Discoloured Water. South Pacific Ocean. Clear Sea. West Indies. Current Rip. South Indian Ocean. Volcanic Islands. Van Diemen Straits. Pair of Whales Struck by Ship. Indian Ocean. Encounter of a Shark With a Giant Squid. North Pacific Ocean. Mistral. Gulf of Lyons. Squalls. South African Waters. Heavy Rain Squall. South Indian Ocean. Willy-Willy. North-West Australia. Aurora Australis. Southern Ocean. Abnormal Refraction. North Atlantic. Lunar Rainbow. North Atlantic. Lunar Halos. North Pacific Ocean. Unusual Lunar Halo. North Atlantic Ocean. Green Ray at Setting of Venus. North Indian Ocean. Waters» pouts. Tyrrhenian Sea. Meteors. Red Sea. North Indian Ocean.

n° 122 (April, May and June).

Ice Sighted Exceptionally Far South. North Pacific. Sharks. Peruvian Waters. Earthquake Tremor at Yokohama. Phosphorescence. South Atlantic Ocean. Bay of Bengal. Current Rips. North Atlantic. Discoloured Water. South African Waters. Fog and Squall. China Sea. Abnormal Refraction. English Channel. Crepuscular Rays and Rainbow. North Atlantic. Green Flash at Sunset. South Pacific Ocean. Zodiacal Light. South Indian Ocean. Solar Halos. North Indian Ocean. North Pacific Ocean. Lunar Halos. North Atlantic Ocean. Double Lunar Corona. South African Waters. Waterspouts. South Pacific Ocean. Meteor. North Indian Ocean.

n° 123 (July, August and September).

Wind Effect on Tidal Streams. Harwich to Hook of Holland Route. Newhaven and Dieppe Cross-Channel Route. Weymouth-Guernsey Route. Holyhead-Kingstown Route. Heysham-Belfast Route. Jan Mayen, Spitzbergen and Ice Edge. Locusts and Butterflies. North Atlantic Ocean. Current Rip. North Indian Ocean. Phosphorescence. Bay of Bengala. Weather Forecasting at Sea. Experience in Typhoon, Ship Passing Through Centre. North Pacific Ocean. Mirage. Portuguese Waters. Abnormal Refraction. North Atlantic. Lunar Halo. South American Waters. Meteor. South Pacific Ocean. Thunderstorms and Waterspouts. Mediterranean Sea.

n° 124 (October, November and December).

Eruption of Mauna Loa. North Pacific Ocean. Magnetic Disturbance. South Indian Ocean. Photographs of Ice in the Southern Ocean. Falcons at Sea. North Pacific Ocean. Current Rips. West Coast of Africa. Phosphorescence. South Pacific Ocean. Weather Forecasting at Sea. Western North Atlantic and South Pacific. Western Australia. Practical Application of Wireless Weather Telegraphy in Navigation. China Sea and Bay of Bengala. Ocean Currents. Weather Charts. Thunderstorm. Mediterranean Sea. Snowstorm. Mediterranean Sea. St. Elmo's Fire. South African Waters. Aurora. South Indian Ocean. Mirage. South African Waters. Lunar Rainbow. South Atlantic Ocean. Waterspouts. Red Sea. Meteors. North Atlantic Ocean. North Pacific Ocean. West African Waters.

**An.** - New Sextant Mirrors [*De speculis novis pro sextantibus*]. Naut. Mag., June, 573-574. Glasgow (1935). **a - 258**

**An.** - Husun Sextants with Circular Mirrors [*Sextantes* Husun *speculis praediti circularibus*]. Naut. Mag., July., 79-80. Glasgow (1935). **a - 259**

**An.** - Gothic Bubble Sextant with Detachable Artificial Horizon and Electric Lightning [*De sextante* Gothic *bulla praedito et horizonte artificiali qui disiungi potest*]. Rev. Hydrogr. XIII, 1, 138-139. Monaco (1936). **a - 260**

**An.** - Les miroirs en verre recouvert d'aluminium [*De speculis vitreis aluminio tectis*]. Rev. d'Optique, Oct., 348-351. Paris (1934). **a - 261**

**An.** - Zwei Berichte über meteorologische Navigation [*Relationes duae de navigatione meteorologica*]. 3 Taf. a. T. Seewart, V, 2, 55-59. Hamburg (1935). **a - 262**

## Securitas maritima – Operae pro vitae rerumque conservatione – Adsistentia – Destructio et recuperatio navium.

**Bobritzkij T.** - La conquête des profondeurs [*De profunditatibus abyssalibus*]. (En russe). Ill., 226 pp., « Molod. Gvard. ». Leningrad (1934). **a - 263**

Episodes de la vie des membres de l'EPRON (Organisation pour l'organisation des expéditions scientifiques), parmi lesquelles sur les pages 167-207 prime la description du sauvetage du brise-glace « Malyghine » qui avait subi une avarie dans le Ice Fjord (Spitzbergen).

**Castelfranchi G.** - Come Marconi guida le navi nella nebbia [*Quo modo* Marconi *naves ducit per caliginem*]. 2 fig., Natura, 9, 48–49. Milano (1934). **a - 264**

È spiegato come il radiofaro schematicamente agisce e si fa risaltare quali nuovi e vasti orizzonti si apriranno all'impiego di questo recente strumento di Guglielmo Marconi.

**Edelj-Smoljnikov A.** - Expérience de chloropicrinisation des navires dans les conditions polaires (Extrait) [*De navium chloro-picrinizatione*]. (En russe). 3 tabl., Voenno-Sanit. Djelo, 9, 27-31. Moskva. (1934). **a - 265**

**Gavaldá (de) J. M.** - Aumento de la seguridad de la vida humana en el mar [*Securitas navigantium augetur*]. Ibérica, XXIII, 1114, 211-212. Barcelona (1936). **a - 266**

Résumen de una memoria publicada por el American Council of American Shipbuilders en que se demuestra plenamente cuànto han mejorado las condiciones de seguridád en la navegación. De las minuciosas estadisticas resulta la disminución constante del numero de buques que se pierden y del de vidas sacrificadas.

**Kyte Fred L.** - Scatarie. An Ocean Graveyard [Scatarie. *Coemeterium oceanicum*]. Canad. Fisherm., XXII, 3, 12. Gardenvale, Que. (1935). **a - 267**

Illustration of the menace of the Scatarie Island on the eastern coast of Cape Breton in the Atlantic Ocean to navigation; brief account of the outstanding disasters which occurred along the Scatarie coast.

**Luensee S.** - Die Rettung der «Sisto»-Besatzung durch D. « New York » [*Navis* « New York » *in salvationem adducit nautas navis* « Sisto »]. Seewart, IV, 3, 106-111. Hamburg (1935). **a - 268**

Beschreibung der Rettungstat der « New York » am 27. Dezember 1934, die in der Geschichte der Rettung von Menschenleben auf See an erster Stelle steht.

**Marie J. & Dilly C.** - Utilisation et Sécurité du Navire de Commerce [*De utilisatione et securitate navium mercatoriarum*]. 364 pp., Tome II. I partie. Soc. Edit. Géogr. Mar. & Col. Paris (1935). **a - 269**

Cette partie traite du navire en armement et au port.

**Molov V. S.** - Vers l'Ouellen [*Aëronavigatio ad regionem* Uellen]. (En russe). 1 fig., Vokr. Svjet., 7, 12-15. Leningrad (1934). **a - 270**

Description du vol d'une escadrille d'avions de l'expédition aérienne de secours envoyée pour le sauvetage du brise-glace « Tchéljouskine ».

**Ostroumov N.** - Le naufrage du bateau « Gostorg RSFSR » [*Navis* « Gostorg RSFSR » *naufragium*]. (En russe). 4 fig., Za Rybn. Ind. Sev., 9, 33-38. Leningrad (1934). **a - 271**

Recit d'un survivant qui a subi le naufrage.

**Oustinovitch A.** - Le chemin de la gloire [*Reditus navigatorum navis* « Tcheljouskine »]. (En russe). 1 fig., Vokr. Svjet. 7, 9-11. Leningrad (1934). **a - 272**

Récit du retour des membres de l'expédition du « Tchéljouskine ».

**Pierrottet E.** - Verso la risoluzione del problema generale di stabilità delle navi [*De solvendo problemate quoad navium stabilitatem*]. Ann. Vasca Naz. Esper. Arch. Nav., III, 94-99. Roma (1933). **a - 273**

La soluzione consiste nel valutare in modo semplice la entità massima delle azioni esterne capaci di operare su un bastimento, nel supporle tutte contemporaneamente agenti e nello stabilire che sotto questa contemporaneità il bastimento non superi una determinata inclinazione massima. A conclusione e come preludio alla risoluzione pratica del problema di stabilità delle navi, l'A. presenta al Congresso uno: « Schema di regolamento per la verifica della stabilità dei galleggianti ».

**Putnam G. R.** - New Safeguards for Ships in Fog and Storm [*Auxilia nova pro navigatione per caliginem atque tempestates*]. 30 figs., Nat. Geogr. Mag., LXX, 2. Washington (1936). **a - 274**

Radiobeacons. New devices. Examples.

**Rabbeno G.** - Stabilizzazione delle navi [*De navium stabilitate*]. Ann. Vasca Naz. Esper. Arch. Nav., III, 66–81, fig. 1. Roma (1933). **a - 275**

L'A. dà cenni sintetici sulla profonda revisione che, in questi ultimi anni, sia sotto l'aspetto teorico, sia sotto quello pratico, ha subìto il problema della stabilizzazione delle navi.

**Schnakenbeck W.** - Zum Untergang des dänischen Forschungsschiffes « Dana » [*Exitus navis inquisitoriae Danicae* « Dana »]. Naturwiss. XXIII, 30, 533-534. Berlin (1935). **a - 276**

Geschichte des Schiffes. Bericht über das Unglück.

**Skerret R. G.** - Wreck of the « Royal Savage » Recovered [*Navis* « Royal Savage » *in salvationem adducta*]. 1 fig. o. t., U. S. Nav. Inst. Proc., LXI, 393, 1646-1652. Annapolis, Md. (1935). **a - 277**

**Deutsche Seewarte** - Zur Löschung von Ladungsbränden durch Kohlensäure [*De incendiorum extintione per acidum carbonicum*]. Seewart, V, 3/4, 112-114. Hamburg (1936). **a - 278**

**G. (de) J. M.** - La industria de la demolición de buques [*De industria ac navium demolitione*]. 2 tabl., Iberica, XXIII, 1110, 150-151. Barcelona (1935). **a - 279**

Algunas cifras correspondientes al tonelaje de conjunto que ha sido desguazado durante los cinco ultimos años, en las flotas mercantes de las principales naciones.

**An.** - Pollution of the Sea by Oil [*Aquae marinae ab oleo pollutio*]. 32 pp., Edition of the League of Nations. For sale by Carl Heymanns Verl. Berlin (1935). **a - 280**

The first part describes the ever growing serious pollution of the sea by oil, which has necessitated measures of protection to be taken. The second part deals with the international co-operation which has resulted in the publication of a Memorandum of the damages caused, and a resolution on the construction of special apparatuses to clean the water from oil. These apparatuses are dealt with in the Supplements I and II of the work where the points of view of the different countries on the problem also are included.

**An.** - Advocates Abnormal Intensifier for Fog-Piercing Lights [*De peculiaribus reflectoribus in pharis contra caliginem*]. Fish & Oyst. Rep., XVI, 4, 8. Tampa, Fla. (1935). **a - 281**

Summary of a technical paper by Mr. Gjon Mili presented before a joint meeting of the American Physical and Optical Society, in which he shows that burning incandescent lamps over-voltage in special reflectors or lenses would increase the candlepower of fixed marine signal lamps a thousand-fold and increase visibility in a given direction in fogs by as much as three times.

**An.** - Le paquebot « Normandie » [*De transatlantica navi* « Normandie »]. Géogr., Terre-Air-Mer, LXIV, 1, 58-61. Paris (1935). **a - 282**

Brève description du paquebot « Normandie » avec référence spéciale à sa coque, son appareil moteur, le degré de sécurité, ses systèmes de sauvetage, les instruments de navigation et son aménagement.

**An.** - Marine Meteorology and Safe Navigation [*De meteorologia marina et navigationis securitate*]. Mar. Obs., XIII, 121, 26-27. London (1936). **a - 283**

Extracts from Merchant Shipping (Safety and Load Line Conventions) Act, 1932. First Schedule. International Convention for Safety of Life at Sea, 1929. Art. 33: Application. Art. 34: Danger Messages. Art. 35: Meteorological Services. Art. 36: Ice Patrol. Derelicts. Art. 37: Ice Patrol. Management and Coast. Art. 38: Speed near ice. Art. 39: North Atlantic Routes. Art. 40: Transmission of information. Information required.

**An.** - Safety of Life at Sea [*De securitate in navigando*]. Mar. Obs., XIII, 122, 44-45. London (1936). **a - 284**

Some considerations concerning the organisation of the information of marine disasters to be given by « The Marine Observer » and the importance of routine observations, as well as of « additional remarks » to provide valuable information on hazard which could be avoided.

**An.** - La campagne héroïque. La « Pravda » sur l'expédition polaire du « Tchéljouskine » [*Expeditio egregia. Ephemeris* Pravda *refert de navigatione ad polum navis* « Tscheljouskin »]. (En russe). Ill., 46 pp., « Pravda » & IZOGHIZ. Moskva (1934). **a - 285**

Album dans lequel on a recueilli sur 46 pages du format journal tout le matériel publié par la presse centrale (le journal « Pravda ») depuis le 25 Juin 1933 au 18 Juin 1934 sur la campagne du brise-glace « Tschéljouskine » dans les mers polaires, son naufrage et les expéditions de sauvetage organisées par sa suite.

**An.** - L'exploit dans l'Arctique [*De expeditione egregia navis* « Tcheljouskine » *in regionem arcticam*]. (En russe). 1 fig., Vestn. Vozd. Flota, 5, 4-7. Moskva (1934). **a - 286**

L'article est dédié à la description des exploits des aviateurs au cours du sauvetage du « Tchéljouskine ».

## Signalationes maritimae (fixae, fluctuantes, luminosae et per radio, sonorae et ultrasonorae) - Libri pharorum, lanternarum, signalationum - Communicationes.

**Fevrot C.** - Phares et projecteurs [*De pharis et proiectoribus*]. Rev. Scient., LXXIII, 4, 124. Paris (1935). **a - 287**

Comparaison entre la lentille de Fresnel qui a équippé la plupart des phares pendant la seconde moitié du XIXème siècle et le début du XXème, le miroir Mangin et le miroir parabolique que l'on préfère à l'heure actuelle.

**Gilberti D.** - Proposta di norme per il collaudo dei radioricevitori e dei radiogoniometri. (Continua). [*Praecepta ad apparatus radioreceptores et radiogoniometricos comprobandos*]. Boll. Radiotel. R. E. 1/2, 52-60. Roma (1935). **a - 288**

Le norme proposte dall'A. e dal 1° cap. ing. F. Galetti nel Bollettino r. t., nn. 1 e 2, vol. II del gennaio e marzo 1932, vengono ripubblicate con le modifiche richieste dagli organi competenti, in armonia con le pubblicazioni più recenti sull'argomento. Il lavoro è diviso in due parti: una concernente i radioricevitori e l'altra i radiogoniometri; ciascuna parte consta di un gruppo di articoli dedicati alle definizioni e convenzioni e di un gruppo riguardante le norme vere e proprie. Anche in questa seconda edizione, le norme sono presentate sotto forma di proposta da studiare ulteriormente, per il fatto che molti particolari non possono ancora essere normalizzati.

**Hilker Chr.** - Ein Leuchtturm feiert Jubiläum. - Fünfzig Jahre « Rote Sand » [*De pharo* Rote Sand *quinquagesimo recurrente anno*]. Dtsch. Fisch.-Rundschau, 21, 477-479. Bremerhaven (1935). **a - 289**

Kurze Geschichte des am 23. Oktober 1885 fertiggebauten Leuchtturmes, der als Wahrzeichen der Deutschen Bucht dient.

**Manisco G.** - I radiofari nella navigazione marittima ed aerea [*De radiopharis pro navigatione maritima et aëria*]. 8 fig., Naz. Mil., 9, 632-634. Roma (1935). **a - 290**

Notizie sul servizio dei radiofari nella navigazione marittima ed aerea ed importanza che tale servizio potrà assumere in guerra.

**Mead H. P.** - The British Merchant Jack [*Vexillum mercatorium anglicum*]. 5 figs., Mar. Mirr., XXI, 4, 395, 410. London (1935). **a - 291**

Origins and customs connected with the use of the British pilot jack, generally recognised as the Union flag with white border.

**Montefinale G.** - Radiofari per navigazione marittima ed aerea [*Radiophari pro navigatione maritima et aëria*]. 33 fig., Alta Fr., 6, 673-704. Milano (1934). **a - 292**

Si descrivono i principali tipi di radiofari attualmente in uso per la navigazione marittima e per quella aerea. Si mette in evidenza come le diverse esigenze dei due servizi impongano caratteristiche differenti ai relativi impianti. Si forniscono notizie circa installazioni recenti di radiofari per la guida lungo le rotte aeree e negli atterraggi alla cieca.

**Renaud L. M.** - Pavillons de France [*Vexilla Gallica*]. 34 fig., Mer et Outre-mer, juillet, 17-24. Paris (1935). **a - 293**

Pavillons de guerre et de commerce. Pavillons personnels. « Marques » de Chefs d'État.

**Repsold A.** - Versuchsweise Aussendung über den Deutschlandsender auf Welle 1571 m. [*De transmissione instrumento germanico per undam 1571 m. longam*]. Seewart, IV, 6, 267. Hamburg (1935). **a - 294**

Seit dem 1. Juli 1932 sendet die Deutsche Seewarte über den Reichssender Hamburg und die angeschlossenen Sender ein nur aus 6 Punkten bestehendes Kurzzeitzeichen aus. Eine versuchsweise Aussendung, wie oben erwähnt, ist vom 1. Januar bis Februar ermöglicht worden.

**Rosani S.** - Piano di organizzazione dei radiofari marittimi in Italia [*Ratio radiopharos maritimos in Italia constituendi causa*]. 10 fig., Alta Fr., 2, 138-153. Milano (1935). **a - 295**

Una commissione internazionale, riunitasi a Bordeaux nell'aprile dello scorso anno, ha concretato un piano di accordo per l'organizzazione dei servizi di segnalazione delle coste con radiofari, nelle zone del Mediterraneo occidentale e dell'Atlantico centro-orientale. Resi noti i principii di massima che sono stati seguiti nel progettare la nuova rete di stazioni, si descrive quella parte del lavoro che riguarda le coste italiane. Si forniscono inoltre alcuni dati sui primi impianti che sono attualmente in corso di esecuzione e che fra breve entreranno in servizio in località dell'alto medio Adriatico.

**Sterling R. B.** - Lighthouses of the Maine Coast and Men Who Keep Them [*De pharis in litoribus regionis* Maine *eorumque ministris*]. 100 figs., 352 pp. Brattleboro (1935). **a - 296**

**Tzvetkov M. K.** - On the Method of Automatic Recording of Radio-Sound Signals [*De prescriptione automatica signalationum radioscandalio*]. (In Russ., Engl. Summ.). 4 figs., Bull. Arct. Inst., 10, 314-315, 353. Leningrad (1935). **a - 297**

The reception of signals from radio-sounds of Prof. P. A. Moltschanov's device being effectuated during its first year of working by ear, Author has elaborated a method of automatic recording of these signals which has given wholly satisfactory results. Methods, records obtained.

**Vicedomini F.** - I recenti progressi della radiotelegrafia nelle applicazioni navali [*De progressibus scientiae radiotelegraphicae pro navalibus applicationibus*]. Atti Soc. It. Progr. Scienze - XXIII Riunione, II, 73-88. Roma (1935). **a - 298**

Dopo aver brevemente accennato allo sviluppo recentemente assunto dalle applicazioni radiotecniche in generale, si esaminano particolarmente i recenti progressi compiuti dalla radiotelegrafia nelle installazioni di bordo sia della Marina Militare che Mercantile.

**Vorobjov A. V.** - Le service radiographique dans l'Arctique [*De servitio marconigraphico in regionibus arcticis*]. (En russe). Za Osvojenije Arkt., 165-175. Leningrad (1935). **a - 299**

**Comitato Nazionale per l'Ingegneria. Rep. per le Costr. Elett.** - Le microonde nella R. Marina [*De microundis et Regia Classe Italica*]. 11 fig. & 8 fig., Ric. Scient., a. VI, v. I, 7/8 e a. VI, v. II, 7/8, 247-250, 405-413. Roma (1935). **a - 300**

Vengono passati in succinta rassegna gli studi e le ricerche svolti presso il R. I. E. C. della Marina nel campo delle microonde. Si dà cenno di recenti esperienze e di un servizio continuativo di radiotrasmissione svolto per mezzo di esse con risultati soddisfacenti.

**Deutsche Seewarte** - Die Bedeutung von Sturmwarnungen durch Schiffe [*De providendis tempestatibus pro navigatione*]. Seewart, IV, 6, 263-264. Hamburg (1935). **a - 301**

Im Anschluss an den im Seew. 4 (1935) erschienenen Artikel über den Meteorologischen Warndienst und Schiffssicherheitsvertrag wird hier ein neues Beispiel für den Nutzen solcher Warnungen mitgeteilt. Ergänzende Anmerkung der Schriftleitung.

**Istituto Idrografico della R. Marina** - Supplemento n. 1 al vol. I dei « Radioservizi per la Navigazione » (Ed. 1934), ricapitolativo dei fogli n. 1-11. Aggiornato al 7 dicembre 1934-XIII [*De radioservitiis pro navigatione*]. 16. pp., Tip. Ist. Idrogr. R. Marina. Roma (1934). **a - 302**

**Istituto Idrografico della R. Marina** - Radioservizi per la navigazione. Volume II: Radioservizi meteorol., sanitari, ecc. Appendice: Norme e codici per la decifrazione dei bollettini meteorici [*De radioservitiis pro navigatione*]. 37 fig., viii + + 272 pp., Tip. Ist. Idrogr. R. Marina. Genova (1934). **a - 303**

Il volume è aggiornato al 20 settembre 1934-XII.

**Istituto Idrografico della R. Marina** - Supplemento all'elenco dei Fari, Fanali e segnali da nebbia (Mediterraneo, Mar Nero, Mar d'Azof, Mar Rosso, Golfo d'Aden e Costa orientale d'Africa fino a Zanzibar) [*Index pharorum, lanternarum et signalationum per caliginem. Supplementum*]. 80 pp., Tip. Ist. Idrogr. R. Marina. Genova (1935). **a - 304**

**Organisation Météorologique Internationale** - Notice sur le plan international des transmissions en mer [*Nota de ratione internationali pro transmissionibus maritimis*]. 126 pp., Secr. Organ. Météorol. Int., 18. Utrecht (1934). **a - 305**

**Salvage Service of Turkey** (Tahlisiye Umum Müdürlügu) - Notices to Mariners - Avis aux Navigateurs [*Monitiones ad usum navigatorum*]. (In Engl. & French). 5 figs., Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 87-89. Monaco (1935). **a - 306**

Information sent to the International Hydrographic Office by the Salvage Service of Turkey relating to a radiobeacon recently installed at the entrance to the Bosphorus, at Rumeli-Fener.

**Tzoueghems** (Bureau Météorologique Central). - Manuel pour la rédaction des télégrammes météorologiques du bord des navires et des stations côtières [*De redigendis telegrammatis meteorologicis a navibus stationibusque litoreis*]. (En russe). 28 pp., Ed. Bur. Centr. Météorol. Moscou (1933). **a - 307**

**G. M. F.** - Il servizio radiotelefonico marittimo in Germania [*Servitium radiotelephonicum maritimum in Germania*]. 3 fig., Rass. Poste, Telegr. e Telef., 1, 20-25. Roma (1935). **a - 308**

L'importanza del servizio radiomarittimo, anche agli effetti della salvaguardia umana in mare, richiama l'attenzione di tutti gli Stati. Dopo lo sviluppo del servizio radiotelegrafico marittimo abbiamo ora il progressivo affermarsi del servizio radiotelefonico marittimo a grande distanza, che in Italia è stato affidato al Centro multiplo di Coltano, mentre stazioni costiere minori a Genova e Napoli provvedono al servizio entro brevi distanze. Identicamente è stato organizzato il servizio radiotelefonico marittimo in Germania e di esso l'A. dà esaurienti notizie.

**H. B.** - Perfectionnements dans la technique de la signalisation maritime [*De signalationibus maritimis. Perfectiones quae in earum technica adductae sunt*]. Rev. Hydrogr., XII, 2, 116-117. Monaco (1935). **a - 309**

Complément au Compte rendu des Travaux de la Conférence Technique Internationale de Signalisation Maritime de Paris 1933, dont cette Revue a donné un aperçu dans le vol. XI, 2, 1934, page 129. Communication au Bureau par M. de Rouville, Directeur des Phares et Balises de France.

**An.** - Les phares le long de la Route Maritime du Nord [*De pharis per cursum maritimum ad regiones nordicas*]. (En russe). Bull. Arct. Inst., 1, 33. Leningrad (1936). **a - 310**

Information sur l'établissement sur le trajet Karskija Vorota - embouchure du fleuve Lena – de 110 phares automatiques à gaz de 1 million de bougies et de 5 phares électriques de 2-2,5 millions de bougies, et sur la construction projetée d'autres phares électriques pour la navigation maritime et aérienne.

**An.** - New Incandescent Lamp for Marine Signal Lights [*Lampas incandescens pro signalationibus maritimis*]. Fish & Oyst. Rep., XVI, 4, 5. Tampa, Fla. (1935). **a - 311**

Improvements embodied in the design of this new lamp: light center fixed by prefocused base, new filament eliminating lens shadow, million of flashes secured by each lamp.

**An.** - Approvazione dell'accordo regionale concernente i radiofari marittimi, stipulato fra l'Italia e gli altri Stati in Bordeaux il 28 aprile 1934–XII. (Regio decreto 1º aprile 1935–XIII, n. 988) [*Comprobatio pactionis regionalis de radiopharis maritimis ab Italia subscriptae ceterisque nationibus, Burdigalae die XXVIII mensis Aprilis 1934-XII*]. Gazz. Uff. Regno d'It., 147, 3145-3152. Roma (1935). **a - 312**

**An.** - Faros con luz blanca y con luz de color para la niebla [*De pharis qui lucem albam mittunt lucemque variis coloribus contra caliginem*]. Ibérica, XLIII, 1070, 279. Barcelona (1933). **a - 313**

Descripción de unos experimentos llevados al cabo en el Laboratorio Nacional de Fisica, de Londres, para comparar la diferente potencia de penetración, en la niebla, de los faros blancos y de color, desde el punto de vista de la visibilidad de los objetos. (v.: W. S. Stiles en el « Illuminating Engineer » de octubre 1934).

**An.** - New Nautical Documents. Ouvrages nautiques nouveaux [*De novis operibus nauticis*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., I, 9-10. Monaco (1936). **a - 314**

Information on the publication by the Lisbon Lighthouse Service of a new edition of the « Lista de Faróis », corrected to 1935, of a new List of Lights (Tôyô Tôdaihyô) published by the Japanese Hydrographic Office, of two Nautical Almanacs, issued respectively in Italy and in Japan, and of Tide Tables, published by the Royal Magnetic and Meteorological Observatory of Batavia (Netherlands East Indies).

**An.** - List of W/T Signal Stations. Liste des stations de radiosignaux [*Index stationum pro radiosignalationibus*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 95. Monaco (1935). **a - 315**

Information au sujet de la publication par le Service Hydrographique de la Marine Française de l'édition de 1935 du 2ème volume des « Radiosignaux » (à l'usage des Navigateurs) qui concerne la météorologie et les Avis aux Navigateurs.

**An.** - Distinctive Signal for Surveying Vessels - Signal distinctif pour navires hydrographiques [*De signis pro naviculis hydrographicis*]. (In Engl. & French). 1 fig., Int. Hydrogr. Bull. - Bull. Hydrogr. Int., V, 104. Monaco (1935). **a - 316**

Description of the distinctive flag adopted by Russian vessels engaged in hydrographic work in accordance to information given in « Izvestija Moreplavateljam » (Notices to Mariners).

**An.** - Wireless Weather Signals [*De radiosignalationibus meteorologicis*]. 4 tabl., 20 code tabl., 1 chart. Mar. Obs., XIII, 121, 28-39. London (1936). **a - 317**

I. Ships' wireless weather signals: World-wide system of voluntary selected ships routine wireless weather telegraphy (Instructions). - Wireless stations detailed to receive routine coded weather reports from « A selected ships » and to intercept routine coded weather reports from « B selected ships ». - International ships' Wireless Weather Telegraphy Code. - Code Tables (XX tables).

**An.** - New Radiobeacon Schedule Provides Added Safety [*Ratio novi cuiusdam radiophari construendi ad augendam securitatem*]. Naut. Gaz., CXXV, 23, 9 & 32. New York (1935). **a - 318**

United States and Canadian Lighthouse Services have reached decision to adopt new methods of operating navigational radio signals.

**An.** - Zusammenarbeit zwischen Luftschiff und Seeschiff [*De operibus consociatis inter aeroplana et naves*]. Seewart, V, 2, 68-69. Hamburg (1935). **a - 319**

Berichte der Luftschiffsleitung des Graf Zeppelin und der Schiffsleitung des D. España. über eine durch optischen Signalverkehr zustandegekommene Proviantabgabe des Luftschiffes.

# OPERAE MARITIMAE

## Operae portuales – Tunnels – Canales maritimi – Effossiones fundi marini.

**Azzini A.** - Banchina nel Porto di Messina [*De contignatione portuali Messanae*]. 8 fig., Cem. Arm. - Le Ind. del Cem., 2, 13-18. Milano (1935). **a - 320**

Caratteristiche del tipo adottato. Calcoli statici delle parti principali. Tiranti verticali. Disposizioni di cantiere.

**Krall G.** - Problemi inerenti alla costruzione del nuovo bacino di carenaggio a Genova [*De navalibus Genuae construendis problematisque quae ad ea pertinent*]. 11 fig. n. t. & 1 tav. f. t. Ann. Lav. Pubbl., 11, 1016-1040. Roma (1935). **a - 321**

La nota espone gli originali metodi seguiti per il calcolo del nuovo bacino di carenaggio a Genova nonchè gli speciali accorgimenti costruttivi adottati nell'esecuzione della grandiosa opera.

**Baumeister** - Ufereinfassungen in Seehäfen [*Praecepta ad lineam litoream in portibus maritimis servandam*]. Werft, Reed., Hafen. Berlin (1935). **a - 322**

**Bruns R.** - Der Ausbau des Danziger Hafens in den Jahren 1920-1935 [*De amplificatione portus Dantisci A. 1920/1935*]. Jahrb. d. Hafenbautechn. Ges., XIV. Hamburg (1934 & 35). **a - 323**

**Coen Cagli E.** - Sulle condizioni di stabilità dei moli a parete verticale [*De stabilitate quoad moles foraneas parietibus verticalibus*]. 6 fig., Ann. Lav. Pubbl., 6, 495-518. Roma (1934). **a - 324**

Dopo aver richiamato le fondamentali condizioni che nell'applicazione del tipo verticale o misto debbono essere soddisfatte, l'A. analizza i disastri recentemente avvenuti nelle opere di difesa dei porti di Catania e di Algeri (opere del tipo misto, con infrastruttura di massi ciclopici) per arrivare alla identificazione delle cause cui i disastri stessi debbono essere imputati.

**Coen Cagli E.** - Italian Breakwater Construction [*De molibus maritimis italicis aedificandis*]. Nature, CXXXVI, 3429, 99. London (1935). **a - 325**

Short note on a conference held by prof. Coen Cagli at the Institution of Civil Engineers London on July 9, on the progress made during recent years at Italian harbours and the present accomodation and equipment at the leading ports.

**Coen Cagli E.** - Le opere di difesa dei porti [*De operibus tutelaribus in portibus*]. Realtà, 12, 603-609. Milano (1934). **a - 326**

Secondo la diversa loro struttura queste opere di difesa possono dividersi in due grandi categorie: opere costituite a guisa di vere dighe, da una grande gettata di materiali lapidei, e opere costituite da una vera e propria muraglia a pareti verticali o quasi. Accennato al diverso comportamento di queste opere sotto l'azione esercitata dalle onde, l'A. tratta più particolarmente di quelle del tipo a muraglia, eretta in grandi profondità e dà conto delle varie applicazioni che se ne sono fatte in Italia ed all'estero. In fine dà conto delle cause essenziali dei disastri avvenuti recentemente in opere di questo tipo, uno a Catania, l'altro ad Algeri.

**Croce L.** - I gargami nei bacini di carenaggio in conglomerato cementizio armato [*De operibus in navalibus construendis cemento armato*]. 2 fig., Cem. Arm. - Le Ind. del Cem., 3, 25-26. Milano (1934). **a - 327**

Indicate le disposizioni costruttive che, con l'introduzione del cemento armato nella costruzione dei gargami nei bacini di carenaggio, permettono di assegnare ai conci di granito l'ufficio di materiali di rivestimento e di riportare per contro tutte le sollecitazioni trasmesse dal battello-porta esclusivamente sul conglomerato, si dà conto del procedimento seguito nei calcoli statici dei gargami.

**Cunningham B.** - Wave Action on Vertical Wall Breakwaters [*Undarum actio in moles maritimas parietibus verticalibus*]. 8 figs., Nature, CXXXVI, 3434, 283-286. London (1935). **a - 328**

Some consideration on the incidents occurred to the breakwaters at Catania in Sicily in March 1933 and at Algiers in North Africa in February 1934. Results from experiments undertaken by prof. Coen Cagli and prof. Stucky at the Hydrobiological Laboratory of the University of Lausanne. Conclusional remarks on the structure of the walls.

**Davis F. S.** - The Port of Boston [*Portus* Boston]. 2 figs., Naut. Gaz., CXXV, 16, 5-8. New York (193 ). **a - 329**

Brief description of the port; facilities and improvements.

**Despujols M.** - L'état actuel des travaux d'aménagement du Port du Havre. La gare maritime transatlantique [*De operibus in portu* Le Havre (*Gratiae*). *Statio maritima transatlantica*]. 18 fig., Génie Civ., CVI, 22, 525-532. Paris (1935). **a - 330**

**Despujols M.** - The Port of Le Havre [*Gratiae Portus*]. 8 figs., Naut. Gaz., CXXV, 15, 3-7. New York (1935). **a - 331**

Description and short history of the works and facilities done in this harbour.

**Goossens Ph. & Verschoore E.** - Le nouveau port de pêche d'Ostende [*Portus piscatorius novus Ostendae*]. 4 fig., 3 phot., 1 pl. h. t., Ann. Trav. Publ. Belgique, XXXVI, 4, 507-534. Bruxelles (1935). **a - 332**

Après une brève description de l'état et des conditions du port de pêche d'Ostende avant le 1 Mars 1922, les. A. A. illustrent les travaux exécutés en vue de la construction d'un nouveau port de pêche en cette ville et décrivent les nouvelles installations dans les suivants chapitres: I. Bassin à flot. - II. Ecluse. – III. Installations pour la réparation des bateaux de pêche: cales de halage ou slipway; chantiers de petite construction navale et agrandissement éventuel du bassin à flot. - IV. Bassin à marée, banc de carénage et chenal d'accès. – V. Minque. - VI. Quartier industriel et Cité des pêcheurs.

**Greenwood T.** - Le tunnel sous-marin de la Mersey [*Porticus submarina in regione* Mersey]. Rev. Scient., LXXIII, 1, 24. Paris (1935). **a - 333**

Quelques chiffres et un commentaire concernant la construction du tunnel sous-marin qui relie la ville de Liverpool à celle de Birkenhead, de l'autre côté de la Mersey, en traversant 3 km. 300 au dessous du large estuaire de cette rivière. C'est certainement un des travaux les plus remarquables accomplis par le génie civil anglais.

**Legowski St.** - Der Hafen von Gdynia (Gdingen) [*Gdyniae portus*]. Jahrb. d. Hafenbautechn. Ges., XIV. Hamburg (1934 & 35). **a - 334**

**McLellan H. J.** - Greater Saint John [*Portus amplificatior* Saint John]. 4 figs., Naut. Gaz., CXXV, 18, 4-6. New York (1935). **a - 335**

On the improvements of this harbour, the industrial heart of the Maritime Provinces of Canada.

**O' Brien M. P.** - Models of Estuaries [*De exemplaribus faucium fluminum*]. 1 fig., 1 table, Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, II, 485-492. Washington D. C. (1935). **a - 336**

Pointing out that small-scale hydraulic models are admirably suited to the solution of estuary-problems A. in a table reports the dimensions and other characteristics of the more important estuary-models built to date in USA. Model laws and program of experiments on hand of the model of the Columbia River estuary, built by the U. S. Tidal Model Laboratory.

**Pagan L.** - Porto Marghera e la sua funzione economica [*Portus* Marghera *eiusque functio oeconomica*]. 27 fig., 33 pp., Officine grafiche Carlo Ferrari. Venezia (1935). **a - 337**

Con la creazione di Porto Marghera, triplice era il problema che si mirava a risolvere e che investiva tutta la vita economica e l'avvenire stesso della città di Venezia. L'A. illustra questi aspetti e cioè: Provvedere alle indispensabili estensioni degli approdi commerciali; creare, in prossimità dei nuovi centri di produzione e di lavoro, nuove zone di espansione edilizia e demografica. L'A. dà notizie di quella parte del programma già realizzata, mettendo infine in rilievo l'importanza della funzione di Porto Marghera in rapporto a tutto il complesso della produzione e dell'economia nazionale.

**Pagliaro F.** - La diga di Chambon [*De mole foranea ad* Chambon *pertinente*]. 6 fig., Ann. Lav. Pubbl., 7, 542-552. Roma (1935). **a - 338**

L'A. riferisce i principali dati di costruzione facendo seguire qualche osservazione circa la diga di Chambon, sulla Romanche (Francia).

**Periani P.** - Progettazione ed esecuzione delle opere marittime. III. L'arredamento portuale nei riguardi del traffico [*Ratio et aedificatio operum maritimorum. III. De muneribus in portibus constituendis pro mercium frequentia*]. 152 fig., 3 tav., 244 pp., U. Hoepli. Milano (1935). **a - 339**

È il XX vol. edito dalla Scuola speciale del cemento armato annessa alla Scuola Politecnica di Milano.

**Plate M.** - Les installations du port de Bremerhafen [*De muneribus in portu* Bremerhafen]. 3 fig., Bull. Assoc. Int. Perm. Congrès Navig., X, 19, 30-41. Bruxelles (1935). **a - 340**

**Plate & Wasmus** - Bremer Strom- und Hafenbau [*De constructionibus portus Bremae ac tutela in currentias*]. Hansa 16. Hamburg (1936). **a - 341**

**Pouder G. H.** - The Port of Baltimore [*Portus* Baltimore]. Naut. Gaz. CXXV, 24, 15 & 23. New York (1935). **a - 342**

The recent commodities of the port and improvements in steamship services.

**Renaud P.** - Algérie. La Marée de tempête du 3 février 1934 [*Algaria. Aestus ex tempestate die 3 Februarii 1934*]. 2 pl., Un. Géod. & Géophys. Int. Ann. Comm. Etude Raz de Marée, 4, 42-46. Paris (1934). **a - 343**

Description de l'accident survenu à la deuxième branche de la jetée de Mustapha (Algérie) dû à une très grosse mer et à l'envahissement brusque du littoral par la mer. Quelques conclusions concernant le genre des ouvrages pour les ports exposés; ouvrages à talus pour ces ports; critique des jetées verticales.

**Sevieri V.** - Il controllo della resistenza chimica dei cementi all'acqua di mare [*Inspectio resistentiae chimicae cementi aquae marinae*]. Ind. It., Cem., 12, 340-347. Roma (1934). **a - 344**

Dopo alcune considerazioni generali tendenti a chiarire cosa debba intendersi per resistenza chimica dei cementi, si presentano alcuni metodi per controllare tale resistenza in acqua di mare.

**Spofford C. M.** - Cape Cod Canal Bridges [*De canalis pontibus ad* Cape Cod *pertinentis*]. Milit. Engineer, XXVIII, 159. Washington (1936). **a - 345**

**Sutherland R. A.** - The Scope of the Constant-angle Arch Dam. [*De angulo qui dicitur apertionis constantis in molibus maritimis eiusque finibus*]. Engineering, CXLI, 3665 & 3667, 10/24 Apr. London (1936). **a - 346**

**Tagliolato L.** - Costruzione dei porti su spiagge aperte [*De portibus in oris maritimis apertis aedificandis*]. 5 fig., Boll. Sind. Fasc. Ing. ed Arch. Tre Venezie, 10, 1934, 240-242. Trieste (1935). **a - 347**

I porti di questo genere sono costituiti da un bacino completamente artificiale racchiuso fra due moli convergenti verso l'imboccatura ed aventi compito di ripararlo dai venti della traversia principale (molo di sopraflutto) e da quelli della traversia secondaria (molo di sottoflutto). Per chiarire meglio le caratteristiche di progetto ed il sistema costruttivo in uso per tali opere, l'A. dà notizia di qualche tipo di porto realizzato.

**Tchirikhine J. D.** - Sur la construction d'un port dans l'embouchure du fleuve Léna [*De construendo quodam portu ad accessum fluminis* Lena]. (En russe, rés. angl.). Sev. Morsk. Poutj (Rec. Art. Hydrogr. & Navig.), I, 83-96. Leningrad (1934). **a - 348**

**Thierry (de) G.** - Der Hafen von Genua [*Portus genuensis*]. Jahrb. d. Hafenbautechn. Ges. XIV, 1934-35. Hamburg (1934 & 35). **a - 349**

**Vogel** - Ausbau des Hafens Wesermünde [*De constructionibus pro amplificatione portus* Wesermünde]. Jahrb. d. Hafenbautechn. Ges., XIV, 1934-35. Hamburg (1934 & 35). **a - 350**

**De G. J. M.** - Para el mejoramiento de los canales y puertos del Canadà [*De portibus canalibusque Canadensibus in melius reddendis*]. Ibérica, XXIII, 1105, 69. Barcelona (1935). **a - 351**

Información sobre nuevas construcciones, entretenimiento y subsidios y trabajos de dragado decidido por el Gobierno canadiense y sobre el movimiento total de la navegación en aguas canadienses.

**J. E.** - Les extensions du port de Southampton. L'équipement de la forme de radoub George V, de 365 mètres de longueur [*Agitur de amplitudine portus* Southampton]. 15 fig., Génie Civil, CVII, 12, 261-266. Paris (1935). **a - 352**

**An.** - Lavoro di completamento delle dighe del porto di Chioggia [*De peractis molibus maritimis in portu* Chioggia]. 1 fig., Ann. Lavori Pubbl., LXXIV, 4, 272-273. Roma (1936). **a - 353**

Descrizione della sistemazione della bocca di Chioggia che è stato l'ultimo lavoro di costruzione dei Porti-canali fra la laguna di Venezia ed il mare aperto, allo scopo di assicurare l'alterno periodico passaggio delle acque di marea fra questa e quello, e che completa la serie dei lavori intesi alla conservazione della Laguna.

**An.** - I lavori per l'allargamento e il prolungamento della Riviera di San Marco a Venezia [*De ripa Sancti Marci Venetiis*]. 5 fig. Ann. Lavori Pubbl., LXXIV, 6, 435-438. Roma (1936). **a - 354**

Lavori dal Rio di S. Martino al Rio della Tana e prolungamento della riviera fino ai Giardini Pubblici.

**An.** - Inauguration des sections Anvers-Hérentals du Canal Albert [*Agitur de Canali Alberto die augurali eius sectionum ab Antuerpia ad* Hérentals]. 1 pl. Ann. Trav. Publ. Belgique, XXXVI, 3, 477-486. Bruxelles (1935). **a - 355**

Cérémonie de l'inauguration et quelques détails constructifs des sections Anvers-Wijnegem et Wijnegem-Hérentals du Canal Albert en Belgique.

**An.** - New Smyrna Will Fight for Construction of Jetties by Federal Government [*De portibus construendis in* New Smyrna]. Fish & Oyst. Rep., XVI, 4, 3. Tampa, Fla. (1935). **a - 356**

This note emphasizes the necessity for New Smyrna to improve her harbour and to secure construction of jetties by the Federal Government which will allow shrimp boats to enter the city's harbour without danger of running around or « cracking up ».

**An.** - Proyecto de un nuevo gran puerto en China [*Ratio grandis novi portus Sinensis construendi*]. Iberica, XXII, 1089, 197-198. Barcelona (1935). **a - 357**

Planos generales de un vasto puerto comercial que se desea construir en la parte norte de la inmensa bahia de Hangchau, en pleno delta del Yang-tse-kiang y al sur de Shanghai.

**An.** - Le opere del Porto di Genova nel periodo fascista [*De operibus portus genuensis aetate fascista*]. 25 fig., Ingegnere, 12, 521-535. Roma (1936). **a - 358**

Descrizione sommaria delle opere recentemente eseguite.

**An.** - Bridges from Grapevine to Steel [*De pontibus ab antiquis temporibus in hodiernum*]. 13 figs., Nat. Geogr. Mag., LXIX, 3, 391-406. Washington D. C. (1936). **a - 359**

History of bridges which profoundly, as author claims, affect the destiny of man; their influence upon modern landscape; the first bridges of antiquity; Abraham Lincoln and the Mississippi Bridge builders; Thomas Telford; the first man who built the first iron bridge in England in 1776; the development of iron bridge constructions influence of temperature upon the iron bridges; the difficult problem of New Orleans bridge; a massive structure in remote Rhodesia; the giant bridge accross Sabi River in Southern Rhodesia.

**An.** - Port of Wilmington, Delaware [*Portus* Wilmington (Delaware)]. 4 figs., Naut. Gaz., CXXV, 14, 5-6. New York (1935). **a - 360**

Short history of the last facilities of this harbour.

**An.** - The New Terminal at Callao, Peru. [*De novis molibus maritimis in* Callao (*regione Peruviensi*)]. 3 figs., Naut. Gaz. CXXV, 17, 5-7. New York (1935). **a - 361**

On the last improvements of this harbour which is entering upon a new era of its commercial life.

**An.** - Gdynia – Poland's New Seaport [*Gdynia, novus Polonus portus*]. 7 figs., Naut. Gaz. CXXV, 20, 9-11. New York (1935). **a - 362**

Short description of the situation of this new port grown up in a few years.

**An.** - The Port of Bremen [*Portus Brema*]. 5 figs., Naut. Gaz. CXXV, 25, 6-8. New York (1935). **a - 363**

Port traffic reflects trend of German trade.

## Operae submarinae – Mersiones – Scaphandrarii - Cava.

**Beebe W.** trad. de l'angl p. B. Saunez & H. Muller - En plongée par 900 mètres de fond [*De bathysphaera in maris profunditatibus 900 metrorum*]. 28 pl. 321 pp., Grasset. Paris (1935). **a - 364**

Traduction française du volume du constructeur de la bathysphère contenant les descriptions des plongées effectuées par l'A. dans les eaux japonaises, haïtiennes et australiennes. Nombreuses photos illustratives.

**Herpin R.** - La Flore et la faune d'un vieux bateau [*De flora et fauna veteris cuiusdam navis*]. 3 fig., Bull. Inst. Océanogr., 682, 1-15. Monaco (1935) **a - 365**

Il s'agit de la coque d'un vieux caboteur en bois qui se trouve abandonné depuis quelques années dans l'angle sud-est du port des Flamands, près de Cherbourg, sur lequel se sont développées une flore et une faune riches en *Fucus*, Hydraires, Spongiaires, Annélides polychètes, Nudibranches et Ascidies. Comparaison avec la faune des bouées et des bateaux métalliques.

**Masters D.** - Deep–Sea Diving [*De immersionibus in mare altum*]. 5 pls. vii + 94 pp., Discovery Books, 10. Thomas Nelson and Sons, Ltd. London & Edinburgh (1935). **a - 366**

**Niccolai L.** - Studi e provvedimenti per ridurre gli effetti dei fenomeni di elettrolisi sui cavi (Messina) [*De studiis rationibusque ad phaenomena electrolytica reducenda in cavis* (*Messanae*)]. 14 fig., Rend. della XXXIX Riunione Annuale dell'A. E. I. Perturbazioni nel funzionamento degli impianti elettrici (Gardone Riviera). Suppl. a « L'Elettrotecnica », v. VII della Nuova Serie, 268-369. Milano (1934). **a - 367**

**Paspaleff G. W.** - Hydrobiologische Untersuchungen über den Golf von Varna. Schiffsbodenbewachsung [*Investigationes hydrobiologicae in Sinu* Varna. *De organismis quae naves tegunt*]. Arb. Biol. Meeresstat. am Schwarz. Meer in Varna, Bulg. 4, 1-10. Sofia (1935). **a - 368**

Die während drei Jahre auf verschiedenen Schiffen mit Holz-, Stahl-, Eisen- und Kupferplatten vom Vf. beobachteten Schiffsbodenbewachsungen ermöglichen viele bedeutende Schlüsse in Bezug auf ihre Anpassungsfähigkeit, Lebensbedingungen und damit zusammenhängenden Faktoren. Verzeichnis der pflanzlichen und tierischen Organismen.

**Sannio L.** - Un moderno cavo telegrafico sottomarino: il cavo da S. Amaro (Portogallo) a La Panne (Belgio). [*De moderna quadam catena telegraphica submarina a* S. Amaro (*in Lusitania*) *ad* La Panne *in* (*Belgio*)]. 21 fig., Alta Fr., 4, 444-473. Milano (1934). **a - 369**

Questo cavo della Italcable è l'ultimo cavo telegrafico di grande lunghezza che sia stato posato; rappresenta perciò anche oggi una delle più moderne espressioni della tecnica Dopo alcuni rapidi cenni sullo sviluppo dei cavi con induttanza e sulle difficoltà particolari, che presenta per essi l'attuazione del servizio in duplex, sono sommariamente illustrate le caratteristiche dei cavi muniti di induttanza solo nel tratto mediano ed è esposta, dalla specificazione delle norme di capitolato alle prove in fabbrica ed al collaudo finale, l'opera compiuta dal servizio tecnico della Italcable. Viene ancor fatto cenno dei mezzi tecnici con cui si proteggono i cavi dai disturbi eventuali e parassiti, e sono esposte le esperienze, eseguite per la prima volta durante la posa di questo cavo, per verificare l'effettivo conseguimento di un alto grado di immunità.

**(Tha).** - Taucher spricht mit Flugzeug [*Scaphandrarius cum aeroplano loquitur*]. 3 Abb., Umschau, XXXIX, 23, 448-449. Frankfurt a. M. (1935). **a - 370**

Bericht über einen neulich mit einem, hier beschriebenen, Mikrophon unternommenen Versuch, wobei eine Uebertragung zwischen dem Taucher und einerseits den Rundfunkhörern und andererseits einem über dem See Kreuzenden Flieger möglich war.

**An.** - 923 Meter unter dem Meeresspiegel [*De bathysphaera in maris profunditatem 913 metrorum*]. Fischmarkt, III, 10, 270-274. Cuxhaven (1935). **a - 371**

Kurzer Bericht über die Tauchversuche von W. Beebe, die er in seiner « Bathysphäre » vorgenommen hat.

## VARIA

### Res nauticae – Folklore – Historia politica, militaris et mercatoria marium – Vocabularia nautica – Legislatio nautica.

**Acworth B.** - The Restoration of England's Sea Power [*Renovatio imperii maritimi Anglici*]. Eyre & Spottiswood. London (1935). **a - 372**

Second edition of the work of the A. whose title was: The Navy and the Next War.

**Andersen L.** - Lis sails the Atlantic [*De navigatione atlantica ab auctore peracta*]. 8 pls., xvi + 240 pp. G. Routledge & Sons Ltd. London (1935). **a - 373**

**Baillet E.** - La concurrence maritime italienne [*Aemulatio mercatoria Italica*]. Rev. Géogr. Comm. LVIII 2me trim., 1-8. Bordeaux (1934). **a - 374**

Activité de la marine marchande. Histoire des progrès des paquebots depuis 1920.

**Basso L.** - Les dimensions des navires modernes [*De dimensionibus navium hodiernarum*]. Rev. Scient., LXIII, 5, 167-168. Paris (1935). **a - 375**

Quelques précisions sur l'accroissement du tonnage des navires modernes, complétées par quelques exemples d'ordre pratique.

**Chaveriat R.** - Ceux de la voile. La vie à bord d'un long courrier [*Res nauticae aetate navigationis velicae*]. 10 phot. Mer & Outre-Mer, nº d'avr., 25-30. Paris (1936). **a - 376**

Description de la vie à bord, de l'équipage, de sa nourriture, de l'état d'esprit qui régnait sur ces longs-courriers à voile qui ont bourlingué de l'Atlantique au Pacifique et dont plusieurs ont dû soutenir durant la guerre mondiale des luttes inégales contre les sous-marins ennemis.

**Ciarlantini F.** - Viaggio nell'Oriente Mediterraneo [*De navigatione ad regiones mediterraneas orientales*]. Mondadori. Milano (1935). **a - 377**

Oltre un resoconto di viaggio questo lavoro è una rassegna degli interessi italiani nel vicino Oriente.

**Deambrosis D.** - Importanza politica e militare del Mediterraneo centrale [*Momentum politicum et oeconomicum maris Mediterranei*]. 2 fig., Riv. Fant., 11, 1517-1551. Roma (1935). **a - 378**

L'A. illustra i caratteri del Mediterraneo centrale e ne esamina l'importanza sotto i punti di vista economico, politico e militare.

**De Nicola E.** - La gente di mare e la previdenza sociale [*De nautis eorumque praevidentia*]. Realtà. Maggio, 383-391. Milano (1936). **a - 379**

**Esparteiro A.** - Dicionario Ilustrado de Marinharia [*Vocabolarium pictum nauticum*]. Num. ill., 175 pp., Sociedade Astoria, Ltd. Lisboa (1936). **a - 380**

**Fea L.** - Alcuni problemi tecnici del naviglio mercantile moderno [*Quaedam technica problemata de marina marcatoria*]. 2, 175-186. Roma (1935). **a - 381**

Largo riassunto di una comunicazione dell'A. alla recente riunione a Napoli - ottobre 1934-XII - della « Società Italiana per il progresso delle Scienze ». Tale comunicazione riguarda i progressi recentemente compiuti nel campo del naviglio mercantile, con speciale riguardo a quelli avvenuti in Italia.

**Gladisch & Schulze-Hinrichs** - Leitfaden der Seemannschaft [*Liber ad usum nautarum*]. Abb. Taf., 356 S., E. S. Mittler u. Sohn. Berlin (1935). **a - 382**

**Hatt G.** - Stillehavsproblemer [*De oceano Pacifico et problematis ad eum pertinentibus*]. 1 Map, 84 pp., Kulturgeogr. Skr., I. København (193 ). **a - 383**

The continents of the Pacific seen from economical and political point of view.

**Hummel H. & Siewert W.** - Der Mittelmeerraum. Zur Geopolitik eines maritimen Grossraumes [*De mari mediterraneo ex geopolitica*]. 36 Kart., 200 S. Ztschr. f. Geopolitik, 11. Kurt Vowinckel Verl. Berlin–Heidelberg (1936). **a - 384**

Die Geopolitik betrachtet die politischen Vorgänge vom Standpunkt der Raumbedingtheit des staatlichen Lebens. - Gemeinsame Grundlagen und gemeinsame Entwicklung des Mittelmeerraumes. Die geopolitische Entwicklung der Teilräume. Die wehrgeopolitische Lage. Ueber das Schicksal des Mittelmeerraumes.

**King-Hall L.** - Sea Saga [*Maris fabulae*]. 12 pls., 451 pp., V. Gollancz. Ltd. London (1935). **a - 385**

Maritime diary of four generations of the family King-Hall: James Hall, surgeon in the British Navy in 1805, William Hall, volunteer of the Navy in 1829 and later admiral R. N., George King-Hall, born in 1850 and retired as Admiral in 1913, and Stephan King-Hall, retired as fregate captain in 1929. The most important historical events, which took place in the R. Navy during the period concerned, are dealt with.

**Kolsrud O.** - Til Østgrønlands Historie [*De historia Groenlandiae orientalis*]. (Texte norvég. rés. franç.). Norsk. Geogr. Tidsskr., V, h. 7, 3, 381-413. Oslo (1935). **a - 386**

Conférence tenue à la Société Norvégienne de Géographie à Oslo le 28 novembre 1934.

Notices historiques et contes sur le Groenland depuis 800. - Historia Norvegiae 1170, Saxo Grammaticus 1250, la carte de Claudius Clavus 1427 et autres documents historiques. Colonisation pendant 1800.

**Lévy R.** - Extrême–Orient et Pacifique [*De regionibus in extremo oriente deque oceano Pacifico*]. Armand Colin. Paris (1935). **a - 387**

L'importance politique du Pacifique. Propagation de la race jaune, leur concurrence industrielle. La position isolée des Indes Néerlandaises.

**May A. H.** - Hune [*Caput mali*]. Mar. Mirr., XXII, 1, 112-114. London (1936). **a - 388**

Some considerations on hand of French and Icelandic dictionaries, on the origin of the French nautical term « hune », which is the equivalent of the English « top » and means a platform near the head of each of the lower masts of a ship.

**Mecking L.** (Hrsg.). - Geographisches Jahrbuch. XLIX [*Annuarium geographicum*]. 325 S. Justus Perthes. Gotha (1935). **a - 389**

Ausser der das Gesamtgebiet des Deutschen Reiches sowie speziell Nord- und Mitteldeutschland behandelnden Literatur ist hier eine Zusammenstellung der über die politische Geographie des Meeres umfangreichen Literatur gegeben.

**Monacciani L.** - La tutela del credito navale [*Fides navalis eiusque tutela*]. Giuffrè. Milano (1935). **a - 390**

**Nickerson G.** - Tales of the South Shore [*Enarrationes ad litus meridionale pertinentes*]. Canad. Fisherm., XXI, 8, 12-13. Gardenvale, Que. (1934). **a - 391**

Story of the loss of the « Staffordshire », a clipper ship built in East Boston in the winter 1854.

**Parkes O.** Edit. by... - Jane's Fighting Ships 1935 [*Index navium*]. Sampson Low, Marston & Co. London (1935). **a - 392**

**Pereira A.** - L'économie maritime du Portugal [*De oeconomia maritima Lusitaniae*]. phot. 28 pp., Univ. Techn. Lisbonne (1934). **a - 393**

Conférence à la Faculté des Lettres de l'Université de Bordeaux.

**Poujade J.** - Fresque marine [*De navibus ab antiquis temporibus in hodiernum*]. 10 fig., Mer et Outre–Mer. Juin, 49-53. Paris (1935). **a - 394**

L'évolution du navire de la Méditerranée des galères égyptiennes jusqu'aux cuirassés decrite aussi par illustrations avec texte explicatif.

**Prak W.** - Problems of the Pacific. Causes for War [*Quaestiones ad oceanum Pacificum pertinentes*]. Tables & sketches U. S. Nav. Inst. Proc., LXI, 389. 917-927. Annapolis, Md. (193). **a - 395**

Situation in the Pacific examined from economic, military-technical, and political standpoints. The danger of the Japanese empire and its increase of vitality. The Author advises to prepare arms as the best guarantee of peace.

**Rickover H. G.** - International Law and the Submarine [*Lex internationalis et navis submarina*]. U. S. Nav. Inst. Proc., LXI, 391, 1213-1227. Annapolis, Md (1935). **a - 396**

The object of this paper is to examine the rules of naval war which govern the use of the submarine, with a view to ascertain whether, under the changed conditions of modern war, the rules generally accepted prior to 1914 still reflect underlying principles of international law.

**Rocco F.** - L'assicurazione marittima ed aeronautica [*Cautio maritima et aëria*]. Ed. Jovene. Napoli (1935). **a - 397**

**Rudershausen J.** - Die polnische Seehandelspolitik [*De politica commercii poloni maritimi*]. Osteurop. Forsch. N. F. XXI, Königsberg/Berlin (1936). **a - 398**

**Sanders H.** - The Destruction of Prizes at Sea [*Destructio navium mercatoriarum bello perdurante*]. U. S. Nav. Inst. Proc., LXI, 391, 1233-1237. Annapolis, Md. (1935). **a - 399**

Sinking merchant vessels at sea is a measure resorted to by the weaker belligerent. History records but three wars in which enemy prizes were regularly destroyed at sea. The use of submarines. The effect of a strong Navy of U. S. to guarantee the rights of their nationals at sea.

**Sandiford R.** - Diritto marittimo di guerra [*Ius maritimum bellicum*]. Arti grafiche Sansovini. Roma (1935). **a - 400**

**Schäfer O.** - Die geopolitischen Grundlagen der englischen Mittelmeerherrschaft. [*Fundamenta politica imperii mediterranei Anglici*]. Geogr. Anz. XXXVII, 4, 73–78. Gotha (1936). **a - 401**

**Scheibe A.** (Hrsg.). - Nautikus, Handbuch der Seemacht und Seegeltung [Nautikus. *Liber de potentia maritima et maris dominatione*]. 280 S., 16 Jaf. Mittler u. Sohn. Berlin (1936). **a - 402**

Dies Werk ist aus Interesse für sowohl Kriegs- als Handelsmarine, Luftfahrt, Schiffbau und Reedereien. Geleitwort von Admiral von Trotha; 12 Mitarbeiter, Fachmänner der alten Marine.

**Scheltema de Heere R. F.** - Mathematics and Research. [*De mathematica ac investigationibus*]. Mar. Mirr. XXI, 4, 450–452. London (1935). **a - 403**

Author claims that we ought to devote more attention to the physical and theoretical side of shipbuilding than has been done before and emphasizes the help which could be given by model builders to the study of the exact proportions and dimensions of ancient ships. Such a study can prevent the repetition of errors already committed in shipbuilding.

**Sheridan T. W.** - Save Stems for Ships [*Prorae securae pro navibus*]. U. S. Nav. Inst. Proc., LXI, 6 (388), 812-813. Annapolis, Md. (1935). **a - 404**

Author points out the necessity of changing the dangerous shape of merchant ships' stems, as it is appreciated that the sharp, straight knife-edge of the modern merchant craft has tremendous penetrating powers, and emphasizes the urgency of an international implementing agreement by which the port charges of ships constructed with safety stems would be reduced to encourage the construction of this type of crafts.

**Sillani T.** - Scritti di Manfredi Gravina [*Operae*. Manfredi Gravina *auctore*]. Ed. La Rassegna Italiana. Roma (1935). **a - 405**

Prefazione di S. E. Federzoni sull'ultimo suo incontro con Gravina. Raccolta degli scritti fatta da Maria Sofia Gravina e ordinata dall'A. Vi si mette in evidenza la dottrina storica e politica dell'Alto Commissario della Società delle Nazioni per Danzica.

**Singer M. E.** - Lois fondamentales sur l'Extrême Nord. Le droit sur les espaces polaires et organisation des organes administratifs. Tentative de description systématique [*De legibus praecipuis circa regiones orientis ultimi. Ius de spatiis polaribus ac ratio ad administrationem pertinens. Descriptio systematica*]. (En russe). 143 pp. Ed. Glavsevmorputj (Admin. Centr. Voie Marit. Nord.), Leningrad (1935). **a - 406**

**Sorokine N. M.** - Créons une flotte puissante pour l'Arctique Soviétique [*De aedificanda classe pervalida pro navigationibus in Arctidem Sovieticam*]. (En russe). Za Industr. Sev., 84, 2. Leningrad (1935). **a - 407**

**Stirling Y. Jr.** - Sea Power. The Foundation of Successful World Trade [*Marium dominatio. Fundamenta prosperi successus commercii mundialis*]. 1 fig., 1 table. U. S. Nav. Inst. Proc., LXI, 6, (388), 767-780. Annapolis, Md. (1935). **a - 408**

Author deals with the subject of the equality of security whose aim is to establish a formula upon which to base comparative warship needs in order to eliminate unrestrained construction competition between the different countries, and passes then to the history of the development of the United States' foreign trade, with special regard to those of their Merchant Fleet. He discusses then the foundation of sea power and illustrates the main elements of it in the various states under the headings: (1) Naval ships, (2) Naval bases, and (3) The Merchant Marine. At the end he deals with the naval problems in the Pacific.

**Trapp (von) G.** - Bis zum letzten Flaggenschuss [*Historia navium submergibilium bello perdurante*]. Anton Pustet. Leipzig (1936). **a - 409**

**Van Loon H. W.** - Ships. How They Sailed the Seven Seas [*De navibus et navigationibus septem maribus*]. G. Hanap. London (1935). **a - 410**

**Vasilin V. D.** - La responsabilité personnelle du capitaine de navire [*De auctoritate ad navis praefectum pertinente*]. Librairie technique et économique. Paris (1935). **a - 411**

**Wallace F. W.** - Superstitions of the Sea [*Nautarum superstitiones*]. Canad. Fisherm., XXI, 1, 18-19, 2, 16-17. Gardenvale, Que. (1934). **a - 412**

Old sailors fallacies.

**Wallace F. W.** - Blue Water. A Tale of the Deep Sea Fishermen [*Aqua coerulea. Historia piscatorum*]. 322 pp., Nat. Bus. Publ. Ltd. Gardenvale, Que (1935). **a - 413**

New edition of the author's classic story of the Nova Scotia fishermen first published in 1914 and followed by several editions with an introduction briefly describing the changes that have taken place in the years following the period the book was written.

**Wiese V. J.** - L'océanographie de l'Arctique [*De oceanographia in regionibus arcticis*]. (En russe). Za Osvoj. Arkt., 63-72. Leningrad (1935). **a - 414**

**Académie de Marine** - Le libre usage du Canal de Suez et sa « neutralité » [*Agitur de libera navigatione Canali* Suez *eiusque neutralitate*]. 27 pp., Soc. Edit. Géogr. Mar. & Colon. Paris (1936). **a - 415**

Communication faite par M. Max Bahon, Directeur général honoraire et Administrateur de la Compagnie du Canal de Suez, Secrétaire de l'Académie. (Séance du 23 avril 1936).

**Institut für Meereskunde** - Ozeanfahrt auf deutschen Schiffen [*De navigationibus oceanicis a navibus germanicis peractis*]. 146 S., 38 Abb. a. T., 15 Textfig., 2 Beil. Das Meer in volkstüml. Darst., IV. Mittler u. Sohn. Berlin (1936). **a - 416**

Dies Werk gründet sich auf eine vom Institut veranstaltete Vortragsreihe und enthält Beiträge von sieben Fachleuten über das Verhältnis zwischen Staat und Schiff, die deutsche Handelsflotte von der Vorkriegsentwicklung bis zum heutigen Stand, die deutsche Segelschiffahrt und über verschiedene Dienste an Bord grosser Ueberseedampfer sowie Chronik schneller Reisen.

**Ministero delle finanze - Direzione generale delle dogane e imposte indirette - Ufficio di statistica** - Movimento della navigazione del Regno d'Italia nell'anno 1931 [*Ratio de navigatione Regni Italici A. 1931*]. xiv + 786 pp., lix + 450. 2 vol. Tip. della Camera dei Deputati. Roma (1934). **a - 417**

Il primo volume comprende il movimento della navigazione in ogni porto, rada e spiaggia, registrato in tavole analitiche relative ai porti principali; porti secondari; provviste di bordo; rilascio; grande pesca. Il volume secondo comprende in tavole riassuntive il movimento complessivo del Regno, rilevato nei suoi molteplici aspetti (Movimento generale. Litorali. Provviste di bordo. Grande pesca).

**Ministero delle finanze - Direzione generale delle dogane e imposte indirette - Ufficio di statistica** - Movimento della navigazione del Regno d'Italia nell'anno 1932 [*Ratio de navigatione*

*Regni Italici A. 1932*]. xiv + 610, lx + 453. Tip. della Camera dei Deputati. Roma (1935). **a - 418**

La pubblicazione consta di due volumi. Volume primo: Tavole analitiche (Porti principali. Porti secondari. Provviste di bordo. Rilascio. Grande pesca). Volume secondo: Tavole riassuntive (Movimento generale. Litorali. Provviste di bordo. Bilancio. Grande pesca).

**Protectorat de la République française au Maroc. Gouvernement chérifien. Service du commerce et de l'industrie.** - Rapport sur la navigation et le mouvement commercial du. . . [*Relatio de navigatione et commercio*]. xvi – 57 pp., F. Moncho, Rabat (1935). **a - 419**

**Ufficio Storico della R. Marina** - Le Bandiere di Combattimento delle nostre Navi da Guerra [*Vexilla bellica navium Italicarum*]. Moltissime ill., xiv + 965 pp. Istit. Poligrafico dello Stato. Roma (1935). **a - 420**

Lavoro compilato dal generale di porto Udalrigo Ceci. Descrizioni delle cerimonie della consegna della bandiera di combattimento alle navi d'Italia dal 1866 in poi. Notizie storiche sulle imprese compiute dalle stesse navi.

**A. M. M.** - El Nostramo [*Navis dominus*]. Bull. Ass. Amis. Musée Marine. II, 255-257. Paris (1935). **a - 421**

Pages d'épisodes de mer. Explication du mot nostramo du glossaire maritime.

**W. S. R.** - The «Nonsuch» and the «Belle Poule» [*De navibus* «Nonsuch» *et* «Belle Poule»]. Mar. Mirr., XXI, 4, 456-457. London (1935). **a - 422**

On hand of the example of the encounter between the «Nonsuch» and the «Belle Poule» on July 16th, 1780, author quotes the habit in the eighteenth century of spelling of place names by Masters of H. M. Ships, which was often of the phonetic order. The example illustrated refers to the name of the Yeu Island, which was not unknown also as Ile d'Yeu and Ile Dieu, and which in English logs is referred to as Isle God.

**An.** - Annali della Vasca Nazionale per le esperienze di Architettura Navale in Roma [*Alveus ad experientias ducendas pro navali architectura. Annales*]. V. III, viii + 139 pp. ill. e 33 f. t. Ist. Poligr. dello Stato, Roma (1933). **a - 423**

Il volume contiene: informazioni sull'esercizio della vasca Nazionale di Roma sino a tutto il 1933.

**An.** - Le rapport du Comité central des armateurs de France pour l'année 1934 [*Agitur de Gallicis navium constructoribus eorumque relatione pro A. 1934*]. Rev. Scient., LXIII, 8, 287-288. Paris (1935). **a - 424**

Résumé du Rapport contenant un aperçu sur la situation maritime du double point de vue national et international, avec référence spéciale à l'amélioration de la situation maritime mondiale et à la crise de l'armement français.

## Biographiae et necrologiae.

**Ångström A.** - Axel Wallén. – 1 photo. Un. Géod & Géoph. Int., Assoc. Météorol., Pr. – V. V–e Ass. Gén. Lisbonne, Sept. 1933, II Mém. & Disc., 3-5. Paris (1935). **a - 425**

Notice biographique et nécrologique consacrée au Directeur Général et Chef de l'Institut National Suédois de Météorologie et d'Hydrographie, Président de la Commission de Radiation Solaire de l'Union Géodésique et Géophysique Internationale, mort le 23 février 1935 à Stockholm.

**Ascoli U.** - Luigi Amedeo di Savoia, Duca degli Abruzzi. – Belforte. Livorno (1936). **a - 426**

**Bertu B.** - Il P. M. Alberto Guglielmotti. – Riv. Cult. Mar. X, 9/10, 331-344. Roma (1935). **a - 427**

**Bordeaux H.** - Vie héroïque de Guynemer [*De* Guynemer *eiusque vita heroica*]. 238·pp. Plon. Paris. (1936). **a - 428**

**Botley C. M.** - A Founder of English Meteorology [*Fundator meteorologiae anglicae*]. Quart. Journ. R. Meteorol. Soc., LXI, 261, 346. London (1935). **a - 429**

Brief account of the work of the Venerable Bede, dead twelve hundred years ago, author of the first meteorological treatise written in England.

**Cardona** - Marco Polo. – Bol. Soc. Españ. de Excursiones XLIII, Cuarto Trim. Madrid (1935). **a - 430**

**Cresswell M.** - Captain James Cook. 1728-1779. – 2 figs., 1 map. Mar. Obs., XIII, 121, 10-14. London (1936). **a - 431**

First instalment of an abbreviated biography of the great navigator James Cook; it will be completed in the April number.

**Crestani G.** - G. P. Magrini. – 1 fot. Boll. Comit. per la Geod. e Geof. del C. N. R. Serie II A. VI, 1/2 5-8. Milano (1936). **a - 432**

Necrologia. Biografia.

**Dannmeyer** - Zum siebstigsten Geburtstag Carl Dornos [*De Carolo* Dorno *70° recurrente anno*]. Ann. d. Hydrogr., LXIII, 7, 283-284. Berlin (1935). **a - 433**

Kurzer Bericht über die wissenschaftlichen Verdienste des Altmeisters der klimatologischen Meteorologie.

**Ditisheim P.** - Louis Leroy 1859-1935. – Bull. Géod. 47, 384-390. Toulouse-Paris (1935). **a - 434**

**Doublet E.** - Une famille d'astronomes et de géographes (Claude de l'Isle et sa descendance, Philippe et Jean-Nicolas Buache) [*De quadam familia astronomorum et geographorum* (*idest de* Claude de l'Isle *eiusque stirpe, Philippo et Johanne Nicolao* Buache)]. 6 portr. Rev. Géogr. Commerc., LVIII, 4, 1-42. Bordeaux (1934). **a - 435**

**E. Boy-Ed** - Siegfried Luensee. – Ann. d. Hydrogr., LXIV, 2, 64. Berlin (1936). **a - 436**

Oberregierungsrat Kapitän S. Luensee, Leiter der Nautlischen Gruppe I, Sekretär der Internationalen Kommission für Maritime Meteorologie ist am 11. Januar 1936 gestorben. Veröffentlichungen: Monatskarten für die Nord- und Ostsee und nautische Handbücher u. a. hier wiedergegeben.

**Fornaroli L. A.** - Ardita gente ligure. Enrico A. d'Albertis [*Gens ligustica heroica. Henricus* A. d'Albertis]. Bozzo & Caracciolo. Genova (1935). **a - 437**

**Garri A.** - Babouchkine. – 6 fig. Naschi Dostizh., 7/8, 3-15. Moskva (1934). **a - 438**

Biographie du pilote polaire Babouchkine et description de quelques uns de ses vols audacieux dans l'Arctique Soviétique.

**Gavira José** - Muerte de un explorador polar [*Obitus exploratoris polaris*]. Bol. Soc. Geogr. Nacion., LXXVI, 1, 62. Madrid (1936). **a - 439**

Necrologia para la muerte del General W. Greely, que dirigió la expedición artica del 1881.

**Lanctot G.** - Portraits of Jacques Cartier [*De imaginibus Iacobi* Cartier]. 8 figs., Canad. Geogr. Journ., X, 3, 148-153. Montreal (1935). **a - 440**

**Lapérouse de Léon** - L'Amiral Courbet [*Almiragius* Courbet]. 9 fig., Mer et Outre-Mer, Septembre, 13-21. Paris (1935). **a - 441**

Commémoration du cinquantième anniversaire de sa mort le 11 Juin 1885.

**Maggi G. A.** - Luigi de Marchi. - Rendic. R. Ist. Lombardo sc. lett., Ser. II, V. LXIX, 1/5. Pavia (1936). **a - 442**

Cenno necrologico.

**Manukhin V.** - Roald Amundsen. (En russe). Mol. Bolchev., 20, 30–38. Moskva (1934). **a - 443**

Compte rendu des expéditions d'Amundsen vers le Pôle Nord.

**Mey A.** - Professor Dr. W. Grosse. - Ann. d. Hydrogr., LXIII, 9, 363-364. Berlin (1935). **a - 444**

Leiter des Meteorologischen Observatoriums Bremen, Herausgeber des Deutschen Meteorologischen Jahrbuches und Verfasser zahlreicher meteorologischer Aufsätze und des Werkes « Wetterkunde » (1928).

**Meyerstein E. H. W.** - Captain Marryat and the « Ariadne » [*De Cap.* Marryat *deque navi* « Ariadne »]. Mar. Mirr., XXI, 3, 285-304. London (1935). **a - 445**

On the hand of a recent examination of Admiralty and Foreign Office Papers in the Public Record Office the author completes the account of Captain Marryat's last command, given in Marshall's « Royal Naval Biography » (1831) and repeated by Mrs Ross Church in her life of her father (1872), he fills in that way a lacuna left blanc hitherto by writers on Marryat.

**Philippar G.** - Vauban et son œuvre à Brest [*De* Vauban *eiusque operibus*, Brest]. Acad. de Mar., 267–292, Soc. Edit. Géogr. Paris (1934). **a - 446**

Compte rendu des réunions organisées à Brest pour commémorer le Tricentenaire de Vauban, 1633-1933.

**Perrier G.** - Le Général Léon Bassot (1841–1917). 1 phot., Bull. Géod., 48, 435–456. Toulouse–Paris (1935). **a - 447**

**Portier** - Le professeur J. Thoulet. - Bull. Soc. Océanogr. de France, XVI, 90. Paris (1936). **a - 448**

**Sbormi V.** - L'Ammiraglio Gravina [*Almiragius* Gravina]. Ed. Ardita. Roma (1935). **a - 449**

**Schulz B.** - Zur Vollendung des 70. Lebensjahres von Gerhard Schott [*Gerhardus* Schott, *70º recurrente anno natali*]. Ann. d. Hydrogr. LXIV, 8, 329–335. Berlin (1936). **a - 450**

Lebensgeschichte und Verzeichnis seiner sämtlichen Arbeiten.

**Scott J. M.** - Gino Watkins. - 28 pls., 1 portr., 7 maps, 317 pp., Holder & Soughton. London (1935). **a - 451**

Biography devoted by a friend to the memory of the great explorer of the mysteries of the Arctic.

**Sillani T.** - Scritti di Manfredi Gravina [*De operibus Manfredi* Gravina]. La Rassegna Italiana. Roma (1935). **a - 452**

**Skatchko A.** - Piotr Ghermoghenovitch Smidovitch (1874–1935). (En russe). Sov. Sev., 3/4, 7–19. Moskva (1935). **a - 453**

**Spiess F.** - Alfred Merz dem Schöpfer der Deutschen Atlantischen Expedition des Forschungsschiffes der Reichsmarine « Meteor » 1925/1927 zum 10 jährigen Gedenken seines Todes in Buenos Aires [*In memoriam Alfredi* Merz *qui expeditionem germanicam in navi* « Meteor » *suscepit ab A. 1925 ad A. 1927 decimo recurrente anno ab eius obitu in urbe* Buenos Aires]. Ann. d. Hydrogr., LXIII, 9, 333–336. Berlin (1935). **a - 454**

Rundfunkvortrag am 17. August 1935. Lebensgeschichte und Forschungen.

**Slettenmark G.** - Axel Wallén. (Engl. rés.). 1 Photo, Sv. Geogr. Årsb. II, 208-217. Lund (1935). **a - 455**

Obituary on Dr. Axel Wallén, Director of the Swedish Meteorological and Hydrological Office born in 1877, dead on February 24th 1935. His work and publications.

**Tikhij M. I.** - A l'occasion du 50me anniversaire de l'activité scientifique du Prof. N. M. Knipovitch [*De prof.* N. M. Knipovitsch *eiusque operibus, 50º recurrente anno ab initio eius activitatis*]. (En russe). 2 fig., Priroda, 2, 52-54. Leningrad (1935). **a - 456**

**Vercelli F.** - In memoria di Luigi De Marchi [*In memoriam Aloysii* De Marchi]. 1 fot., Boll. Comit. per la Geod. e Geof. del C. N. R., serie II, a. VI, 1/2, 1-4. Milano (1936). **a - 457**

Necrologia. Breve biografia. Bibliografia.

**Voorbeytel Cannenburg W.** - Mr. Dr. C. P. Burger, 1858-1936. – Tijdschr. Kon. Ned. Aardr. Gen., Amsterdam LIII, 4, 481-482. Leiden (1936). **a - 458**

Librarian of the University of Amsterdam, author of several works on navigation and geography.

**Wiese W.** - C. Borchgrevink. (En russe). 1 photo, Bull. Arct. Inst., 3/4, 85-86. Leningrad (1935). **a - 459**

Nécrologie du célèbre explorateur de l'Antarctique.

**Bureau Hydrographique International** - Le Contre-Amiral Luigi Tonta [*Contralmiragius Aloysius* Tonta]. 1 phot., Rev. Hydrogr., XII, 2, 7-8. Monaco (1935). **a - 460**

Biographie nécrologique.

**Bureau Hydrographique International** - Le Professeur Louis Joubin. - Rev. Hydrogr., XII, 2, 9. Monaco (1935). **a - 461**

Biographie nécrologique.

**Deutsche Seewarte** - Kapitän Otto Reichbächer. - 1 Phot., Seewart, IV, 3, 105-106. Hamburg (1935). **a - 462**

Kurze Biographie mit Schilderung der Verdienste des in den Ruhestand getretenen Abteilungdirektors der Hamburg-Amerika Linie.

**U. S. Coast & Geod. Survey** - Edwin J. Brown. 1899-1935. - Bull. Géod., 47, 372-373. Toulouse-Paris (1935). **a - 463**

**A. L.** - Jubilé du Prof. N. M. Knipovitch [*De jubilatione professoris* N. M. Knipovitsch]. (En russe). 1 photo, Bull. Arct. Inst., 3/4, 82-83. Leningrad (1935). **a - 464**

Biographie et résumé des principaux travaux du prof. Knipovitch dont l'activité a eu surtout pour but l'exploration et l'étude de l'Arctique, publiés à l'occasion du 50ème anniversaire de sa carrière scientifique, pédagogique et politique.

**A. R. & E. B.** - Boris Lavrentjevitch Isatchenko. (En russe). 1 photo, Bull. Arct. Inst., VI, 1, 28-29. Leningrad (1936). **a - 465**

Bref compte-rendu des travaux du savant qui a fêté le quarantenaire de son activité pédagogique et scientifique en Octobre 1935; le prof. Isatchenko en dehors des travaux sur les semences et la microbiologie, a exécuté des recherches sur les mers polaires de l'URSS, sur la microfaune de ces mers, ainsi que celle des mers méridionales.

**E. P.** - Le Professeur Charles-Robert Richet. Nécrologie [*Prof. Carolus Robertus* Richet. *Necrologium*]. Bull. Soc. Amis Inst. Océanogr., XVII, 51, 2. Le Havre (1935). **a - 466**

Souvenirs émus d'un ami.

**V. A.** - A. W. Greely. - 1 photo, Bull. Arct. Inst., VI, 1, 30-31. Leningrad (1936). **a - 467**

Nécrologue du savant décédé à l'âge de 91 ans à Georgestown (États Unis) avec référence spéciale à l'organisation de la participation à la 1ère Année Polaire Internationale des États Unis et complété par une liste de travaux de Greely.

**W. W.** - A. de Gerlache. (En russe). Bull. Arct. Inst., 3/4, 87. Leningrad (1935). **a - 468**

Nécrologie du célèbre explorateur belge de l'Antarctique avec un rapide résumé de ses principaux travaux.

**An.** - A. Greely. - Bull. Arct. Inst., V, 12, 450. Leningrad (1935). **a - 469**

Short biography of the explorer of the Polar regions dead in autumn 1935 at Georgetown (U. S. A.).

**An.** - Déces du Professeur Giovanni Magrini [*Obitus professoris Johannis* Magrini]. Bull. Gèod., 47, 421. Toulouse-Paris (1935). **a - 470**

**An.** - Professeur Axel Wallen († 1935). - Bull. Géod., 48, 457. Toulouse-Paris (1935). **a - 471**

**An.** - Sur le cinquantenaire de l'activité au sein de la Société Géographique de l'Etat de son Président Honoraire, homme de science émérite, le Professeur Jules Mikhajlovitch Shokaljskij [*De prof.* J. M. Sokhaljskij, *50° recurrente anno ab initio eius activitatis pro Societate Geographica Nationali*]. (En russe). 1 photo, Izv. Gos. Ghéogr. Obstsch. (Bull. Soc. Géogr. Etat), LXVIII, 1, 3-4. Leningrad-Moskva (1936). **a - 472**

Brève biographie du Président Honoraire de la Société Géographique Russe et de son activité au sein de la Société avant et après la révolution d'Octobre.

**An.** - Captain James Cook. - 1 phot., Mar. Obs., XIII, 122, 51-53. London (1936). **a - 473**

Continuation of Cook's biography (See: « Mar. Obs. », XIII, 119, p. 14, 1936) containing an account of Cook's expedition on board the « Resolution » sent out to settle the controversy arisen around the discovery of Australia and New Zealand in 1772-1775, and another expedition for the discovery of a North-west Passage of 1777-1779, during which Cook was killed in a battle with the natives of one of the islands of the Sandwich group (Hawaii).

**An.** - Homenajes al Profesor Odon de Buen. - Rev. Cons. Oceanogr. Ibero-Amer., V, 1/4, 15-33. Madrid (1935). **a - 474**

Omaggi resi al prof. de Buen in occasione del suo abbandono della cattedra di Biologia presso l'Università Centrale di Barcellona, per limite di età.

**An.** - Giovanni Piero Magrini [*Iohannes Petrus* Magrini]. Rev. Hydrogr., XIII, 1, 7. Monaco (1936). **a - 475**

Nécrologie.

**An.** - Le Major Général A. W. Greely, U. S. A. - Rev. Hydrogr. XIII, 1, 8. Monaco (1936). **a - 476**

Nécrologie.

**An.** - Giovanni Piero Magrini [*Iohannes Petrus* Magrini]. Ricerca Scient., 15-31 maggio, 459-460. Roma (1935). **a - 477**

Necrologia.

**An.** - Victor Victorovitch Akhmatov (1875-1934). - Voie Marit. Nord, II, 5-6, Ed. Glavsevmorpoutj. Leningrad (1935). **a - 478**

# II.

# OCEANOGRAPHIA PHYSICA

## GENERALIA

### Instituta oceanographica – Relationes publicae – Conventus et conferentiae - Oceanographiae historia – Ars docendi – Bibliographiae.

**Annenkova K. A. & Zhukov D. A.** - Manuel bibliographique [*Liber bibliographicus*]. (En russe). 98 pp., Append. Man. Résources d'eau URSS, Severn. Kraj, II. Leningrad (1934). **a - 479**

Liste des ouvrages sur l'hydrologie de la région du Nord de l'URSS.

**Berezkine V.** - Travaux scientifiques à bord du « Lütke » [*De operibus scientificis in navi* « Lütke »]. (En russe). Naouk. i Tekhn., 22, 1-2. Moskva (1934). **a - 480**

**Bigelow H. B.** - Fifth Annual Report of the Director for the Year 1934 [*Relatio* $V^a$ *annua a Directore redacta pro A. 1934*]. Woods Hole Oceanogr. Instit., Rep. 1934, 8-17. Woods Hole, Mass. (1935). **a - 481**

Report of the Director of the Woods Hole Oceanographic Institution concerned with the equipment and the new scientific equipment of the Institution, the library, the personnel, the foreign staff and assistants, the publications, the cooperation with other scientific institutions, the field work, the staff meetings, the general financial condition of the Institution, and its scientific program.

**Bonsdorff I.** - Comptes rendus de la huitième session de la Commission Géodésique Baltique réunie à Tallin et Tartu du 20 au 23 août 1935 [*Relationes de* $VIII^a$ *sessione Commissionis Geodeticae Balticae,* Tallin *et* Tartu *a die 20 ad 23 mensis Augusti 1935*]. (En allem.). Nombr., fig., 298 pp., Osakeyht. Weilin & Goos. Helsinki, Finlande (1936). **a - 482**

**Bossolasco M.** - Résumé des travaux exécutés à la Station Géophysique temporaire de Mogadiscio entre le 1 août 1932 et le 31 juillet 1933 [*Compendium operum peractorum a Statione Geophysica Temporaria* Mogadiscio *a die 1 mensis Augusti 1932 ad diem 31 mensis Julii 1933*]. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V. V-e Ass. Gén., sept. 1933, Lisbonne, II Mém. & Disc., 301-304. Paris (1935). **a - 483**

Bref résumé des travaux de météorologie et climatologie, d'aérologie, d'océanographie, de magnétisme terrestre et d'électricité tellurique, exécutés à l'occasion de la 2ème Année Polaire Internationale à la Station géophysique de Mogadiscio (2°02' N., 45°21' E.).

**Britton C. E.** - Forgotten English Meteorological Societies [*Societates meteorologicae Anglicae oblitae*]. Quart. Journ. R. Meteorol. Soc., LXI, 261, 343-346. London (1935). **a - 484**

Historical account of the activity of the R. Meteorological Society; the foundation of the Astro-meteorological Society and the Copernican Meteorological Society, which both have been entirely forgotten.

**Brunelli G.** - I pionieri della oceanografia [*Praecones scientiae oceanographicae*]. Boll. Pesca Piscic. e Idrobiol., XI, 5, 697-705. Roma (1935) **a - 485**

Sviluppo della scienza del mare attraverso la storia e nomi legati alle scoperte, imprese, iniziative e al suo progresso, sia in Italia che tra gli stranieri.

**Chevey P.** - Rapport sur le fonctionnement de l'Institut Océanographique de l'Indochine pendant l'année 1934-1935 [*Relatio de activitate Instituti Oceanographici Indosinensis*]. 19 pl., h. t., Inst. Océanogr. Indochine, Stat. Marit. Cauda, Note 27, 3-26. Saïgon (1935). **a - 486**

Personnel. Matériel. Navigation. Recherches scientifiques et techniques: Océanographie physique: A. Travaux de synthèse, B. Travaux en mer: 1° Étude des isothermes en plan, 2° Étude des isohalines en plan, 3° Étude des isothermes et des isohalines en coupes, 4° Conclusion, 5° Étude spéciale du Golfe de Tonkin, 6° Étude spéciale du Golfe du Siam, 7° Étude spéciale de la baie de Nhatrang. Oceanographie biologique.

**De Buen R.** - Reunión del Comité Ejecutivo de la Comisión Internacional para la Exploración cientifica del Mediterràneo [*Consessus Comitatus secutorii e Commissione internationali Mari Mediterraneo scientiae causa explorando*]. Rev. Cons. Oceanogr. Ibero-Amer., V, ¼, 35-40. Madrid (1935). **a - 487**

Acta de la reunión del Comité en el mes de noviembre 1934 en Paris con asistencia de representantes de Egipto, España, Francia, Italia, Marruecos español, Mónaco y Rumania.

**De Buen R.** - Reunión en Copenhague (junio 1934) del Consejo Internacional para la Exploración del Mar [*Consilium internationale mari explorando. Consessus Hauniae habitus (mense Junio 1934)*]. Rev. Cons. Oceanogr. Ibero-Amer., V, 1/4, 41-51. Madrid (1935). **a - 488**

Acta de la reunión del Consejo. Entre los acuerdos tomados en las sesiones plenarias, se destaca, por su importancia, uno referente a la protección de ciertas especies, incluso fuera de aguas jurisdiccionales. Copia integral de la propuesta adoptada. Labor realizada en la Asemblea del Consejo del Comité de la Planicie Continental Atlántica y del Comité de Ballenas.

**Ermolaev M.** - 15 années de l'Institut Arctique [*De Instituto Arctico, XV° recurrente anno ab eius fundatione*]. (En russe). 8 fig., 2 tabl., Vestn. Znan., 6, 410-417. Leningrad (1935). **a - 489**

**Field R. M.** - Report of Special Committee of Geophysical and Geological Study of Oceanic Basins [*Relatio a Comitatu, sinibus oceanicis e geophysica et geologia studendis, redacta*]. Nat. Res. Counc., Trans. Amer. Geoph. Un., 16th Ann. Meet., App. 25-26, 1935, I, 6-9. Washington D. C. (1935). **a - 490**

Program of work and scope of the Committee; the hope in a complete collaboration of the Committee with the recently organized Committee on Geophysical and Geological Study of the Continents, and the reasons why the development of such a cooperation might be assured; projects of the expeditions to be organized by the Committee. Opinions and suggestions of the Committee on (1) sounding and submarine physiography, (2) gravity, (3) seismic, and (4) marine sedimentation.

**Fleming J. A.** - Introduction (to the « Transactions of the American Geophysical Union Sixteenth Annual Meeting, April 25 and 26, 1935, Washington, D. C. Part I). [*Introductio in Acta scripta de XVI° Consessu annuo ab* American Geophysical Union *habito a die 25 ad diem 26 mensis Aprilis 1935,* Washington]. Nat. Res. Counc., Trans. Amer. Geoph. Un. 16th Ann. Meet., Apr. 25-26, 1935, I, 3-4. Washington, D. C. (1935). **a - 491**

Brief introductory account on the foundation and activity of the American Geophysical Union, followed by a short summary of the work of the different Sections of the Union during the 16th Annual Meeting, April 25 and 26, 1935, at Washington.

**Helland-Hansen B.** - Det geofysiske institutt [*Institutum geophysicum*]. 2 cartes, Bergens Mus. Årsber. 1934-1935, 64-73. Bergen (1935). **a - 492**

Enseignement et cours. A. Section Hydrographie: Nouvels appareils, recherches entreprises dans plusieurs fiords, expédition d'« Armauer Hansen », 30 Mai-22 Juillet, recherches sur température, teneur en sel, oxygène, concentration des ions, teneur en phosphates et observations météorologiques; autres recherches, publications, B. Section de météorologie théorique: ballons sonde, publications. Section C. Magnétisme terrestre et physique cosmique: Personnel, recherches sur radiation cosmique, effet Raman, publications. La commission géophysique: Membres. La société geophysique norvégienne: réunion annuelle.

**Holmes M. C. B.** - An Introduction to the Bibliography of Captain James Cook, R. N. [*Introductio in bibliographiam ad Cap.* James Cook *pertinentem*]. 64 pp., Francis Edward L . London (1936). **a - 493**

**Jarring A.** - Polarsovjet [*Regio polorum ad U. R. R. S. pertinens*]. Sv. Geogr. Arsb., II, 248-253. Lund (1935). **a - 494**

Review of a book written by members of the Arctic Institute and edited by Prof. Samoilovitch concerning the work accomplished by the Arctic Institute from its foundation in 1919 to 1934.

**Kähler K.** - Tagung der Deutschen Meteorologischen Gesellschaft in Danzig vom 25. bis 27. August 1935 [*Consessus Societatis Germanicae pro re meteorologica Dantisci habitus, mense Augusto a die 25 ad diem 27, 1935*]. Naturwiss., XXIII, 46, 783-785. Berlin (1935). **a - 495**

Kurze Besprechung der Vorträge. Der Festvortrag wurde der Sprache der Meteorologie, d. h. den internationalen Einheitsbezeichnungen gewidmet.

**Khanaitschenko N. K.** - Travaux de la Station Météorologique de Volotchanka sur la péninsule de Tajmyr en 1932-34 [*De operibus peractis a Statione Meteorologica in* Volotschanka *in paeninsula* Tajmyr *A. 1932-35*]. (En russe). Bull. Arct. Inst., 8, 243-244. Leningrad (1935). **a - 496**

Courte description de la construction de la station et de la première période de son fonctionnement.

**Knudsen M.** - Hydrographical Committee 1934 [*Comitatus hydrographicus, A. 1934*]. 1 fig., Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 2^me^ partie, Rapp. administr. (1934-1935), 62-70. Copenhague (1935). **a - 497**

Summary of cruises in 1934. Reports from Belgium, Denmark, England, Finland, France, Germany, Holland. Irish Free State, Latvia, Norway, Poland, Portugal, Scotland, Sweden.

**Lavrov B.** - Campagne et hivernage de la première expédition de Léna [*De explorationibus et hiemationibus, prima perdurante expeditione ad flumen* Lena]. (En russe). 8 fig., Sov. Sever, 1, 74-88. Moskva (1935). **a - 498**

**Levi G.** - Il Registro Italiano Navale ed Aeronautico [*Registrum Italicum navale et aeronauticum*]. Boll. Sind. Fasc. Ingg. ed Arch. Tre Venezie, 3, 65-69. Venezia (1935). **a - 499**

Si illustra l'attività di questo istituto che ha quale scopo principale quello della sorveglianza e classificazione delle navi mercantili e delle aeromobili per servizio civile, e mansioni accessorie relative a questioni attinenti alle attività marittime ed aeree.

**Marsili L. F.** - Osservazioni intorno al Bosforo Tracio o vero Canale di Costantinopoli rappresentate in lettera alla Sacra Real Maestà di Cristina, Regina di Svezia da Luigi Ferdinando Marsili [*Observationes circa Bosphorum Tracium seu Canalem Constantinopolitanum ex epistulis ad Sacram Regiam Majestatem Christinae Suetiorum Reginae ab Aloysio Ferdinando* Marsili *missis*]. 5 fig., Boll. Pesca, Piscic. e Idrobiol., XI, 5, 734-758. Roma (1935). **a - 500**

**Murray J.** - The American Association for the Advancement of Science. The Los Angeles Meeting of the Pacific Division. Sessions of the Affiliated Societies: Oceanographic Society of the Pacific [*Societas Americana rebus scientificis progredientibus. Consessus habitus in* Los Angeles

*a Divisione pro Oceano Pacifico. Agitur de sessionibus habitis a Societate pro Re oceanographica Oceani Pacifici*]. Science, LXXXII, 2125, 267-268. New York (1935). **a - 501**

The meeting was held on June 28 under the joint auspices of the Committees on the Oceanography of the Pacific for the United States and for Canada. Elections and papers presented.

**Navarrete J.** - Historia del Observatorio del Salto [*Observatorii* del Salto *historia*]. Ill., 16 pp., Santiago de Chile (1934). **a - 502**

Memoria presentada a la Societad cientifica de Chile.

**Obroutchev V. A.** - Histoire de l'exploration géologique de la Sibérie. Troisième Période (1851-1888) (Kropotkine, Maak, Meglitzkij, Tchékanovskij, Tcherskij, Schmidt) [*Explorationis geologicae regionis Siberianae historia (1851-1888)*]. Edit. Acad. Sc. URSS, pp. 7-268. Léningrad (1934). **a - 503**

Aperçu général de l'exploration de la Sibérie. Trajets parcourus et courtes biographies des explorateurs dont dans le titre de l'ouvrage. La région de Verkhojansk-Kolyma. La région de Tchoukhotsk.

**Perrier G.** - La 5me Assemblée Générale de l'Union Astronomique Internationale. Paris 10-17 Juillet 1935 [*De V° Consessu Plenario ab Unione Astronomica Internationale habito, Parisiis a die 10 ad 17 mensis Julii 1935*]. Bull-Géod. 47, 391-420. Toulouse-Paris (1935). **a - 504**

**Rosenthal A.** - Première Conférence Hydrographique convoquée par le Service Hydrographique de l'Administration Centrale de la Voie Maritime du Nord (GOUSMP) [*De prima conferentia hydrographica convocata a Servitio Hydrographico ad centralem Administrationem pro via maritima nordica pertinente*]. (En russe). Sev. Morsk. Poutj (Rec. Art. Hydrogr. & Navig.), I, 100-106. Leningrad (1934). **a - 505**

**Rouzov S. S.** - Nous préparons les hydrographes polaires [*De hydrographis polaribus docendis*]. (En russe). 1 photo. Sov. Arkt. 2, 36-39. Leningrad (1935). **a - 506**

**Scholz J.** - Das Luftelektrische Laboratorium auf Franz-Josephs Land [*De Laboratorio electroaerologico in Terra Francisci Josephi constituto*]. Meteorol. Ztschr., LII, 3, 110-114. Braunschweig (1935). **a - 507**

Ausführliche Beschreibung des Laboratoriumsgebäudes errichtet am Ufer der Bucht Tikhaja während des Zweiten Internationalen Polarjahres für Luftelektrizitätsmessungen. Instrumente und Apparate des Laboratoriums.

**Thom E. M.** - Bibliography of North American Geology 1933 & 1934 [*De bibliographia geologica regionis Americanae septentr.*]. 389 pp., Bull. 869, U. S. Dept. Interior Geol. Surv. Washington (1935). **a - 508**

**Thom W. T.** - Report of Special Committee on Geophysical and Geological Study of Continents [*Relatio redacta a Comitatu, continentibus terris e re geophysica atque geologica studendis*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th. Ann. Meet., Apr. 25-26, 1935, I, 17-18. Washington D. C. (1935). **a - 509**

Brief account of the establishment of the Committee, of which the members should conduct stock-takings of various kinds of geophysical data, and also new studies along magnetic-meteorological lines, for appropriate cooperation with committees of the Division of Geology and Geography of National Research Council.

**Tikhomirov B.** - 20me anniversaire de la Commission Polaire de l'Académie des Sciences de l'URSS [*De Commissione Polorum ad Academiam Sovieticam Scientiarum pertinente, XX° recurrente anno ab eius institutione*]. (En russe). Sov. Sever., 1, III. Moskva (1935). **a - 510**

**Uschakov P. V.** - Kamtchatkan Marine Scientific Station of the State Hydrological Institute [*De Statione maritima scientifica in* Kamtchatka *ad Institutum hydrologicum Nationale pertinente*]. (In Russ.). Bull. Pacif. Comm. Acad. Sc. USSR, 3, 59-60. Leningrad (1934). **a - 511**

Paper sent to the Fifth Pacific Science Congress. Brief information on the activity of the Station founded in 1931 at Petropavlovsk (Kamtchatka) on the shore of Avatschinskaja Bay, whose purpose is the study of the waters around the Kamtchatka Peninsula.

**Ustinova N. F.** - Bibliographic Work of the Arctic Institute [*Opus bibliographicum ab Instituto Arctico paractum*]. (In Russ.). Bull. Arct. Inst., 7, 196. Leningrad (1935). **a - 512**

Program of the bibliographical work of the Institute, which already possesses a cartotheque of about 21000 schedules. The Bibliographic Office has organized special work concerning the bibliography of (1) Franz-Josef Land, (2) Aviation, Aeronautics and aerial surveys in the Arctic and the Antarctic, and (3) Novaja Zemlja (beginning from the year 1932).

**Wallén A. & Wherle Ph.** - Programme de discussion [*Ratio discutenda*]. Un Géol. & Géoph. Int., Assoc. Météorol. Pr.-V, Ve Ass. Gén., Lisbonne, Sept., 1933, II; Mém. & Disc., 7-10. Paris (1935). **a - 513**

Ordre du jour de la réunion de l'Association internationale de Météorologie convoquée en Septembre 1933 à Lisbonne. Liste des sujets de discussion accompagnée d'un exposé des motifs et d'un bref commentaire explicatif.

**Wenner F.** - Report of Special Committee on Journal of Geophysics [*Relatio a speciali Comitatu redacta de ephemeride geophysica instituenda*]. Nat. Res. Counc., Amer., Geoph. Un., Trans. 16th. Ann. Meet., Apr. 25-26, 1935, I, 18-19. Washington, D. C. (1935). **a - 514**

Brief account of the work of the Committee consisting of the chairmen of the seven sections of the American Geophysical Union considering the possibilities of establishing a Journal of Geophysics.

**Administration centrale de la voie maritime du nord (Glavsevmorputj)** - Novaja Zemlja. Index Bibliographique [*Index bibliographicus circa* Novaja Zemlja]. (En russe). 240 pp., Ed. Glavsevmorputj, Leningrad (1935). **a - 515**

**American Geophysical Union** - Resolutions Adopted by the 16th Annual Meeting, April 25-26, 1935) [*Consilia sumpta a XVI Consessu annuo a die 25 ad diem 26 mensis Aprilis 1935*].

Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 50-53. Washington D. C. (1935). **a - 516**

Text of 18 resolutions adopted, of which the following ones relate to oceanography: (I) Resolution of the proposed construction by Great Britain of a magnetic-survey vessel, (II) Resolution on suitable vessel in United States Navy for oceanic surveys, (III) Resolution on bathymetric charts off west coast of the United States, (IV) Resolution of making available for scientific use accumulated geological and geophysical data obtained by U. S. Coast and Geodetic Survey and Navy Department.

**Arctic Institute of USSR.** - Travaux scientifiques de la Station dans la Baie Tikhaya sur la Terre de François-Joseph. - Observations météorologiques en 1929-1930 [*De operibus scientificis peractis a Statione in baja* Tikhaja *circa Terram Francisci Josephi. Observationes meteorologicae A. 1929-1930*]. (En russe, préf., titres et ind. en franç.). 16 fig. et cartes, 7 tables. Trans. Arct. Inst., V, 3-70. Leningrad (1934). **a - 517**

Après une préface concernant la fondation en 1929 d'une station pour les explorations scientifiques dans la Baie Calme (Tikhaja), Terre de François-Joseph, l'A. donne dans un compte rendu des observations effectuées pendant la première année de l'existence de la Station. Description de la Station Météorologique de la Baie Tikhaja. Remarques concernant les observations météorologiques et leur utilisation. Tables: Observations météorologiques routinières.

**Bureau Hydrographique International** - Première Conférence Océanographique Ibéro-Américaine. Madrid-Malaga 1935 [*Prima Conferentia Oceanographica Hispano-Americana. Matriti et Malacae, A. 1935*]. Rev. Hydrogr. XII, 2, 12-16. Monaco (1935). **a - 518**

Pays représentés. Sujéts étudiés. Documents exposés par le Bureau Hydrogaphique International.

**Commissione (R.) Geodetica Italiana** - Verbale delle sedute della R. Commissione Geodetica Italiana tenute a Milano il 10-11 aprile 1934-XII [*Acta scripta Regiae Commissionis Italicae pro re geodetica. Mediolani a die 10 ad diem 11 mensis Aprilis 1934–XII*]. 2 ill., Nuova serie, n. 10, 44. Padova (1935). **a - 519**

**Consejo Oceanografico Ibero-Americano** - Primera Conferencia Oceanográfica Ibero-Americana (Madrid-Malaga, abril 1935) [*Prima Conferentia Oceanographica Hispano–Americana* (*Matriti et Malacae, mense Aprili, 1935*)]. 4 tav., Rev. Cons. Oceanogr. Ibero-Amer., VI, 1, 3-76. Madrid (1935). **a - 520**

Exposición de la labor realizada por la Primera Conferencia Oceanográfica Ibero-Americana celebrada en los dias 23 al 28 de abril 1935 e de los resultados de sus reuniones. Figuran en este trabajo todos los datos referentes a la composición del Comité Ejecutivo del Consejo Oceanográfico Ibero-Americano; del Comité Nacional español y de las nutridas e importantes Delegaciones que han concurrido a la Conferencia, asi como un resumen de los trabajos presentados. Sección de Oceanografía e Hidrologia – Sección de Hidrología Continental – Sección de Problemas generales – Sección de Biología y Pesca.

**Consiglio Oceanografico Ibero-Americano** - Secciòn oficial [*Sessio publica*]. Rev. Cons. Oceanogr. Ibero-Amer., V, 1/4, 53-71. Madrid (1935). **a - 521**

Primera Conferencia Oceanográfica Ibero-Americana. Reunión privada de Delegados y Representantes diplomáticos. Los puntos más interesantes de la nueva circular, con el numero 3, de la primera Conferencia Oceanográfica Ibero-Americana. Estado de la Biblioteca del Consejo.

**Fifth Pacific Science Congress** - Resolutions of.... [*Proposita sumpta, V° perdurante congressu pro re scientifica Oceani Pacifici*]. (In Russ.). Bull. Pacif. Comm. Acad. Sc., USSR, 3, 71-78. Leningrad (1934). **a - 522**

Russian translation of the text of 26 resolutions adopted by the Fifth Pacific Science Congress on its conclusive meeting on June 14th, 1933, at Vancouver.

**Filiale de L'Extrème Orient de l'Académie des Sciences de l'URRS.** - Rapport sur le travail de la...en 1934 [*Relatio de operibus, A. 1934*]. (En russe). 37 pp., Ed. Fil. Extr. Orient Acad. Sc. URSS. Vladivostok (1935). **a - 523**

**Hydrographic Offices - Services Hydrographiques** - Work Carried Out - Travaux exécutés [*De operibus peractis*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., III, 55-56. Monaco (1935). **a - 524**

French hydrographic survey in Indochina; information taken from the «Annales Hydrographiques», Paris 1934, numbered 14-1317 and 14-1318 of the series.

**Hydrographic Offices - Services Hydrographiques** - Reports on the Work Carried Out and Projected by the Hydrographic Offices- Rapport sur les travaux exécutés et projetés par les Services Hydrographiques. - Siam, 1934-35 & 1935-1936 [*Relatio de operibus peractis et peragendis a Servitiis Hydrographicis. Siamensis Regio. A. 1934/35 et 1935/36*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., V, 100-102. Monaco (1935). **a - 525**

A) Surveys made during the period: June 1934 to April 1935: (1) Coastal surveys; (2) Ocean surveys; (3) Magnetic surveys; (5) Tides, tidal stream and current observations; (5) Miscellaneous. B) Charts published in 1934–35: (1) New charts; (2) New editions of existing charts C) Books or Publications issued in 1934–35. Work projected: (a) Surveys projected during period: July 1935-March 1936; (b) Charts in hand; (c) Books or publications in hand.

**Institut Arctique URSS.** - Thèses des rapports de la Session du Conseil Scientifique de l'Institut [*Theses quae continentur in relationibus redactis a Consilio Scientifico ad Institutum Arcitcum Sovieticum pertinente*]. (En russe). 110 pp. Ed. Glavsevmorputj. Leningrad (1935). **a - 526**

**International Commission for Synoptic Weather information** - Report of the Ninth Meeting, De Bilt, May 12th-18th, 1934 [*Relatio de IX consessu habito in* De Bilt *a die 12 ad diem 18 mensis Maji, 1934*]. Pls., tables, 212 pp., Secr. Organ. Météorol. Int., 21. Utrecht (1935). **a - 527**

**International Hydrographic Bureau - Bureau Hydrographique International** - Yar-Book of the... - Annuaire du... [*Annuarium*]. (In Engl. & French). Tables, 85 pp. Monaco (1936). **a - 528**

Après une liste des États membres du Bureau Hydrographique International, de son Comité de Direction, et de son Personnel, suivent les monographies des Services et les biographies des Directeurs des Services Hydrographiques des États membres du Bureau International.

**National Research Council of Japan** - Report April 1933 - March 1934 [*Relatio a mense Aprili 1933 ad mensem Martium* II, 3. *1934*]. 244 pp. Tokyo (1935). **a - 529**

Meetings, works and publications.

**Norsk Polarklubb** - Årbok [*Liber de polo septentrionali*]. Norsk Polarklubb. Oslo (1935). **a - 530**

Contains 17 articles among which may be noticed those concerning the international ice survey in the Atlantic by Olav Mosby, fishing possibilities at the western Greenland by Oscar Sund, the ice-breaker of the Svalbard, the whaling and fishery of *Hippoglossus* in the Arctic waters by Hans Bogen.

**Pacific Committee of the Academy of Sciences of the USSR.** - Bulletin N. 3 [*Bulletinus N. 3*]. (In Russ.). 7–78. Leningrad (1934). **a - 531**

This Bulletin contains a series of papers prepared for the Fifth Pacific Science Congress which have been also published in English in the « Reports » of the Congress. Being also of interest to Russian scientists they are published in the present volume in Russian. The papers by N. V. Kondyrev « Chemical analysis of Water of the Japan Sea » and P. J. Schmidt « List of Marine Biological Stations on the Pacific » have not been included in this series of communications to the Congress and are therefore followed by an English Abstract.

**Première Conférence Géographique Soviétique** - Travaux de la . . . . . . . . (11-18 avril 1933), vol. IV. Séances des Sections [*De operibus peractis prima perdurante Conferentia geographica Sovietica (a die 11 ad diem 18 mensis Aprilis 1933). Vol. IVum*]. (En russe). Tabl., 2 cartes h. t., 221 pp., Edit. Soc. Géogr. Etat. Leningrad (1934). **a - 532**

Thèses et résumés des rapports présentés dans les différentes sections et, entre autre, compte-rendu des travaux de la Section Arctique (pp. 166-180).

**Royal Indian Marine** - Work Carried Out-Marine Survey of India: 1933-1934. Travaux exécutés [*De operibus peractis a* Marine Survey of India, *A. 1933/34*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., V, 99-100. Monaco (1935). **a - 533**

Brief extract from the Administration Report of the Royal Indian Marine, Dehli, 1935.

**Royal Meteorological Society** - Bibliography of Meteorological Literature [*Rerum meteorologicarum bibliographia*]. III, 7 (January-June), 245-291. London (1935). **a - 534**

**Société Météorologique de France** - Bibliographie météorologique. Tomes I à IV. Années 1921-1924 [*Bibliographia meteorologica. Volumina I-IV. A. 1921-1924*]. Off. Nat. Météorol. & Soc. Météorol. de France. Paris (1935). **a - 535**

**Union Géodésique & Géophysique Internationale.** - Actes de la Commission pour l'Etude des Raz de Marée [*Acta scripta Commissionis maris motibus studendis*]. 1 tabl., Ann. Comm. Etude Raz de Marée, 4, 1-19. Paris (1934). **a - 536**

Liste, par États et par ordre alphabétique des membres de la Commission. Extrait de la comptabilité de la Commission pour la période comprise entre le 31 décembre 1932 et le 31 décembre 1933. Activité de la Commission de septembre 1933 à septembre 1934: Représentation des États à la Commission - Recherches - Enquête destinée à permettre à la Commission d'aborder l'étude des raz de marée sur un plan plus général. Résumé des réponses des différents pays au questionnaire qui leur a été envoyé.

**United States Naval Institute Proceedings.** - Various authors [*De operibus a variis auctoribus peractis*]. U. S. Nav. Inst. Proc., LXI, 10 (392), 1357-1588. Annapolis, Md. (1935). **a - 537**

Foreword. Sellers. - The founding of the Naval Academy by Bancroft and Buchanan. Sturdy. - The First Academy Staff. The Colonial Government House of Maryland. Magruder. - The Departments. Description of the United States Naval Academy. Lewis. - Entrance Requirements of U. S. Naval Academy. Rooks. - Naval Academy cheers and songs. Drum and Bugle Corps. Grantham. Officers and gentlemen in the making. Alden. - Annapolis, mother of Navy Men. Ageton. - Navy life begins. Eller. - Plebe summer infantry. A midshipman's day. Kenn. - Extra-curricular activities. Grantham. - Midshipman cruises. Patrick. - Healty minds in healthy bodies. Ageton. Athletic training at the Naval Academy. Aamold.

**Woods Hole Oceanographic Institution** - Report for the Year 1934 [*Relatio pro A. 1934*]. 38 pp., Woods Hole, Mass. (1935). **a - 538**

I. Trustees, as of December 31, 1934. - II. Members of the Corporation, as of December 31, 1934. - III. Report of the Treasurer. - IV. Report of the Director. - V. Staff as of December 31, 1934. - Appendix: Reports of progress by investigators working at the Institution during 1934.

**Woods Hole Oceanographic Institution** - Annual Announcement. Sixth Year 1936-1937 [*Nuncius annuus. A. VI. 1936-1937*]. 12 pp. Woods Hole, Mass. (1936). **a - 539**

Trustees. Officers. General information. Buildings. Salt water supply. Library. Equipment. Staff. Fellowships. Provision for visiting investigators. Instruction. Facilities for publication. Program.

**A. S.** - Commission Polaire de l'Académie des Sciences [*Commissio Polorum ex Academia Scientiarum*]. (En russe). Bull. Arct. Inst., 3/4, 87-88. Leningrad (1935). **a - 540**

Historique de la foundation et de l'organisation de la Commission Polaire de l'Académie des Sciences Russe en 1914; son développement; les principaux travaux exécutés et les recherches accomplies.

**An.** - XVIme Congrès International de Navigation, Bruxelles, 1935 [*De XVI° Congressu Internationali pro Navigatione. Bruxellis, 1935*]. Ann. Trav. Publ. Belgique, XXVI, 6, 964-976. Bruxelles (1935). **a - 541**

Conclusions et vœux élaborés respectivement par la 1ère Section, Navigation Intérieure, et par la 2me Section, Navigation Maritime, au cours de leurs séances lors du XVIème Congrès International de Navigation, réuni à Bruxelles dans la première quinzaine de Septembre 1935.

**An.** - Jubilee Section of the Arctic Institute [*Sessio jubilaris Instituti Arctici*]. (In Russ. Engl. Summ.). 1 photo, Bull. Arct. Inst., 3/4, 53-55, 112. Leningrad (1935). **a - 542**

Brief account of the meeting held in order to celebrate the 15th anniversary of the Arctic Institute of the USSR; list of 62 papers read during the meetings of the Congress from April 14th to April 18th, 1935.

**An.** - Compte-rendu des Sections de l'Institut Arctique de l'URSS sur les travaux exécutés au cours des 15 années de l'existence de l'Institut [*Relatio a Sectionibus quae ad Insti-*

*tutum Arcticum Sovieticum pertinent de operibus peractis per XV annos*]. (En russe). 2 tabl., Bull. Arct. Inst., 3/4, 61-75. Leningrad (1935). **a - 543**

Compte rendu des travaux de la Section Géologique, de la Section Hydrologique, de la Section Cartographique et Géodésique, de la Section Géophysique, de la Section Biologique et Industrielle de l'Institut Arctique de l'URSS.

**An.** - L'Exposition de la Session Jubilaire de l'Institut Arctique) [*De expositione perdurante Sessione jubilari Instituti Arctici*]. (En russe). 3 photos, Bull. Arct. Inst., 3/4, 75-77. Leningrad (1935). **a - 544**

Courte description de l'exposition ouverte en occasion du 15$^{me}$ anniversaire de la fondation de l'Institut Arctique de l'URSS.

**An.** - Works in the Arctic Regions in 1936 [*De operibus peractis in regionibus arcticis, A. 1936*]. (In Russ., Engl. Summ.). Bull. Arct. Inst., VI, 1, 3, 43-45. Leningrad (1936). **a - 545**

Brief account of the discussions which have taken place during a Conference held at Moscow on January 15th, 1936, by the personnel of the Chief Administration of the North Sea Route together with the Heads of various central and local administrations and other people interested in the problem of Soviet Arctic. O. J. Schmidt presented a report on the Program of Work for 1936 and on a number of problems to be taken in consideration on account of the economic development of Soviet Arctic.

**An.** - Sur les problèmes actuels [*Quaestiones hodiernae*]. (En russe). Bull. Arct. Inst., VI, 1, 3-7. Leningrad (1936). **a - 546**

Bref compte rendu du rapport du Directeur de l'Institut Arctique de l'URSS, le Prof. R. L. Samoilovitch, présenté à la réunion des collaborateurs économiques et politiques de l'Administration Centrale de la Voie Maritime du Nord. Le rapport contient le résumé de l'activité déployée en 1935 par les différentes Sections de l'Institut, à voire: les sections géologique, géodésique, hydrologique, biologo-industrielle et géophysique.

**An.** - Quatrième Congrès international de Photogrammétrie. Vœux et résolutions des Commissions [*Proposita et consilia sumpta a variis Commissionibus*]. Bull. Photogramm., 2, 52-62. S-té Franç. Photogr. & Cinématogr. Paris (1935). **a - 547**

Vœux et résolutions du Congrès réuni à Paris du 30 novembre au 1 décembre 1934.

**An.** - La Academia Sinica [*Academia Sinensis*]. 2 fot., Iberica, XXII, 1089, 195-196. Barcelona (1935). **a - 548**

Información sobre la fundación de la Organización Central de Investigación establecida por el Gobierno nacional de Nankin en 1928. La idea de sus fundadores fué fundar una especie de Academia de Ciencias (en su sección de Investigación científica e industrial) combinada con una especie de « Kaiser-Wilhelm-Gesellschaft ». Descripción de los institutos de la Academia Sínica.

**An.** - Annual Report of the Director of the U. S. Coast and Geodetic Survey, 1934. Rapport annuel du Directeur du Coast and Geodetic Survey des E. U. A., 1934 [*Relatio annua a Directore redacta*]. (In Engl. & French). 1 table, Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 51-55. Monaco (1935). **a - 549**

Brief summary of the more important items of the Annual Report of the Director of the U. S. Coast and Geodetic Survey for the financial year ended 30th June 1934, containing some interesting information concerning the activities of that Service.

**An.** - Despatch Lists of Publications Issued by Hydrographic Services. Liste d'envoi des publications éditées par les Services Hydrographiques [*Index publicationum editarum a Servitiis hydrographicis*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 57-58. Monaco (1935). **a - 550**

Information concerned with the addresses of the various Hydrographic Offices of the U. S. of America, of which a complete list is reproduced, in order to avoid delays and losses of various foreign publications on account of their being often incorrectly addressed.

**An.** - Report of Proceedings of the Seventh Meeting of the Baltic Geodetic Commission at Leningrad and Moscow, September 1934. Comptes-rendus de la Septième Séance de la Commission Géodésique Baltique, à Léningrad, Septembre 1934 [*Relationes quae pertinent ad VII$^{am}$ Sessionem habitam a Commissione Geodetica Baltica Leningradi et Mosquae. Mense Septembri 1934*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 59-60. Monaco (1935). **a - 551**

Brief account of the report consisting in two volumes, in German, printed at Helsingfors in 1935; vol. I gives the reports of proceedings and the reports of the Commission, and vol. II contains papers read during the course of sessions. Some particularly important papers are recorded in a list.

**An.** - Annual Report of the Director of the Department of Terrestrial Magnetism. Carnegie Institution of Washington, 1933-34 [*Relatio annua redacta a Directore Dipartimenti pro magnetismo Terrestri. A. 1933-34*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 91-92. Monaco (1935). **a - 552**

Summary of the results obtained and progress made in the various branches of investigation of the Department of Terrestrial Magnetism which are grouped under four divisions; account of the final compilation and preparation for publication of the results in physical and chemical oceanography obtained during the last cruise of the « Carnegie », magnetic equipment and instructions, co-operation with the different International Polar Year Committees.

**An.** - Fifth Annual Report of the Woods Hole Oceanographic Institution, 1934. Cinquième Rapport annuel de l'Institut Océanographique de Woods Hole, année 1934 [*De V$^{a}$ relatione annua ab Instituto Oceanographico in* Woods Hole *redacta. A. 1934*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Int. Hydrogr., V, 107-108. Monaco (1935). **a - 553**

Brief summary of the contents of the Report followed by a list of publications dealing with the biology and the physics of the sea and especially concerned with hydrography.

**An.** - Annual General Meeting of the Society for Nautical Research [*Consessus plenarius annuus Societatis pro inquisitionibus nauticis*]. Mar. Mirr., XXI, 4, 349-377. London (1935). **a - 554**

Account of the Meeting held on July 31st, 1935 in the Theatre of the Royal United Service Institution, Whitehall. List of members and text of the speeches delivered.

**An.** - International Meteorological Conference Warsaw meeting [*Conferentia internationalis pro re meteorologia. Sessio Varsovina*]. Nature, CXXXVI, 3441, 613-614. London (1935). **a - 555**

Report on the conference held on September 6-13, 1935.

**An.** - Classified List of Papers and Reports Bearing on Oceanography Published in Japan during 1932 [*Bibliographia operum oceanographicorum in Japonia editorum, A. 1932*]. Rec. Oceanogr. Works in Japan VI (1934), 73, Tokyo (1936).

(—) Id. Id. Published during 1933, VII (1934). Tokyo (1936). **a - 556**

**An.** - Celebración del XX aniversario de la creación del Instituto Español de Oceanografia y V de la constitución del Consejo Oceanográfico Ibero-Americano [*De Instituto Hispanico pro re oceanographica deque Consilio oceanographico Hispano-Americano. Prioris instituti celebratio, XX° recurrente anno ab eius fundatione, V° autem recurrente a fundatione alterius instituti*]. Rev. Cons. Oceanogr. Ibero-Amer., V, 1/4, 3-14. Madrid (1935). **a - 557**

Discurso del Director del Instituto Español de Oceanografia, Profesor Odón de Buen e copia de un artículo publicado por el Profesor Od. de Buen con el título « El Instituto Español de Oceanografía cumple veinte años di existencia » (« Industria pesqueras», VIII, n° 174 y 175, Vigo, Julio 1934).

**An.** - Centre International - Malaga [*Centrum Internationale, Malacae*]. 1 fig., 4. t., Rev. Hydrogr. XIII, 1, 49-52. Monaco (1936). **a - 558**

Bâtiment construit par la Commission des Travaux du Port de Malaga et confié à l'Institut Océanographique Espagnol. Description succincte. Décret du Conseil des Ministres sur le service du Centre.

**An.** - Dans le Comité du Nord [*Ratio operum peragendorum a Comitatu pro regionibus nordicis*]. (En russe). Sov. Sever, 1, 106-110. Moskva (1935). **a - 559**

Programme des travaux du Comité pour l'année 1935, leur distribution par Sections.

**An.** - Union Géographique Internationale, Congrès international de Gèographie d'Amsterdam 18-28 Juillet 1938 [*Unio Geographica Internationalis. Congressus internationalis pro re geographica, Amstelodami a die 18 ad diem 28 mensis Julii, 1938*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam LIII, 4, 622-630. Leiden (1936). **a - 560**

Première circulaire du congrès. Texte en hollandais et en français.

**An.** - 20 années d'existence de la Commission Polaire de l'Académie des Sciences [*Commissio Polorum ad Academiam Scientiarum pertinens, XX° recurrente anno ab eius fundatione*]. (En russe). Vestn. Znan. 3, 238. Leningrad (1935). **a - 561**

**An.** - Premier Congrès Géographique de l'URSS [*De priore congressu geographico sovietico*]. (En russe). Zemlevedenije, XXXVI, 1, 75-98. Moskva-Leningrad (1934). **a - 562**

Compte rendu du Congrès contenant, entre autre, aussi la résolution votée sur le rapport de R. M. Samojlovitch « Résultats de l'exploration de l'Arctique au cours de 15 ans ».

## Expeditiones oceanographiae et scientiae causa susceptae - Studia et quaesita oceanographica.

**Barnes Cl. A., Thompson Th. G. & Zeusler F. A.** - Summary of the Oceanographical Investigations of Bering Sea and Bering Strait [*De exploratione oceanographica Maris Bering et Strictus. Compendium*]. 1 map, 7 tables. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 258-264. Washington D. C. (1935). **a - 563**

Summary of the oceanographic investigations conducted in Bering Sea during the summer 1934 in a cooperative program of study between the U. S. Coast Guard and the Oceanographic Laboratories of the University of Washington. It contains the following data: Description of region. Apparatus and methods. Sections and stations, temperature- and chlorinity-values of the waters. Nutrient salts and dissolved oxygen. Currents.

**Berezkine - V.** La campagne du « Lütke » en 1934 [*De navigatione navis* « Lütke ». *A. 1934*]. (En russe). 7 fig. Morsk. Sborn. 12, 58-71. Leningrad (1934). **a - 564**

**Bigelow H. B.** - Report on Oceanography [*Relatio de Oceanographia*]. Ann. Rep. Mus. Comp. Zoöl. Harvard College 1934-1935, 13-14. Cambridge U. S. A. (1935). **a - 565**

The most important investigation in cooperation with Woods Hole Oceanographic Institution concerns the bedrock underlying the Continental Shelf. Work accomplished during the cruise of « Atlantis ». Ice observation off Newfoundland and in the Labrador basin. Biological collection works.

**Charcot J. B.** - Campagne du « Pourquoi Pas ? » en 1935. Lettre du Commandant Charcot à M. le Ministre de l'Education Nationale [*De navigatione navis* « Pourquoi-Pas ? », *A. 1935. Epistula Praefecti* Charcot]. Géogr., Terre-Air-Mer, LXIV, 5, 317-321. Paris (1935). **a - 566**

Bref compte rendu préliminaire de l'itinéraire suivi par le « Pourquoi Pas ?» et des principaux résultats obtenus au cours de sa campagne du Groenland du 12 Juillet au 23 Septembre 1935.

**Chokaljskij J.** - Travaux scientifiques à bord du « Krassin » [*De operibus scientificis in navi* « Krassin » *peractis*]. (En russe). 1 fig. Nauk. i Tekhn., 12, 1. Moskva-Leningrad (1934). **a - 567**

**Choulejkine V. V.** - Problèmes actuels de la physique de la mer [*De hodiernis problematis ad maris physicam pertinentibus*]. Sorena, 3. Moskva (1933). **a- 568**

**Defant A.** - Das « Meteor » Werk [*De operibus peractis navi* « Meteor »]. Forsch. u. Fortschr. 20/21. Berlin (1935). **a - 569**

**De las Barras de Aragon F.** - El crucero trasatlántico de la Universidád de Barcelona [*De navigatione transatlantica ab Universitate Barcinonensi peracta*]. Bol. Soc. Geogr. Nac., LXXV, 6, 323-334. Madrid (1935). **a - 570**

Conferencia dada en la Sociedad Geográfica el 11 de Marzo de 1935 acompañada de numerosas proyecciones; descripción de la expedición que se realizó en el buque de la Compañía Trasatlántica « Marqués de Comillas » y consistió en seguir el itinerario oficial de vapores correos; los trabajos de crucero consistieron, en primer lugar, en conferencias.

**Derjughin K. M.** - Explorations of the Pacific Scientific Expedition of the State Hydrological Institute in 1932 [*De operibus peractis per Expeditionem scientificam in Oceanum Pacificum ab Instituto Hydrologico Nationali susceptam. A. 1932*]. (In Russ.). Bull. Pacif. Comm. Acad. Sc. USSR, 3, 29-32. Leningrad (1934). **a - 571**

Four cruises have been made in the Japan Sea during which an investigation of the continental shelf has been performed. In the Okhotsk Sea hydrological sections and stations have been made, and in the Bering Sea all the western area lying between the Bering Strait and the Komandorskije Islands has been investigated, with especial reference to the intermixtion of the waters of both the Bering and the Tschukhotsk Seas. (Report to the Fifth Pacific Congress).

**Derjughin K. M.** - Exploration des mers de l'Extrême-Orient [*De exploratis maribus ad ultimas regiones orientales pertinentibus*]. Bull. Soc. Océanogr. France, XV, 85, 1473-1481. Paris (1935). **a - 572**

Sur les cinq croisières du « Rossinante » dont quatre au golfe de Pierre-le-Grand et dans les régions les plus proches de la mer du Japon. Détachement de la mer de Okhotsk sur le chalutier « Gagara ». Détachement de la mer de Bering sur le trawler « Dalnevostočnik ».

**Dudkovskij** - La II$^{ème}$ campagne de Lena de la GUSMP (Administration Centrale de la Voie Maritime du Nord) [*De secunda navigatione per flumen* Lena *ab Instituto* GUSMP *peracta*]. (En russe). Sov. Jakut. 9/10. 65-74. Jakutsk (1934). **a - 573**

**Evghenov N. I.** - High Latitude Expedition on the « Sadko » [*De expeditionibus ad altas latitudines navis* « Sadko »]. (In Russ. & Engl.). Bull. Arct. Inst., V, 10, 322-328, 355-360. Leningrad (1935). **a - 574**

Account of the expedition of the « Sadko », which sailed from Arkhangheljsk on July 6th and returned in the same port on September 28th, 1935. The Expedition organized by the Administration of the Northern Sea Route had two main objects, i. e.: the collection of material for the further development and elaboration of ice prognosis for long periods ahead, and the exploration of unknown or little known regions in the northern high latitudes. The article contains information on the staff of the Expedition, the oceanographic work performed during the voyage, the aerological surveys made, the ice condition encountered by the ice-breaker, the discovery of an Island, named Ushakov in lat. 80°50′ N., long. 79°20′ E., and of an extensive shallow bank in the extreme northern part of the Kara Sea.

**Fedorov E. K.** - Scientific Work at the Polar Station on Cape Tscheljuskin during the Wintering Period 1934-1935 [*De operibus scientificis peractis a Statione polari in promunturio* Tscheljuskin, *hieme 1934/35*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 10, 333-335, 368-365. Leningrad (1935). **a - 575**

Record of the work performed on the Station built in 1932 and considerably enlarged in 1934 for the purpose of scientific investigations. A brief description of the new buildings of the Station is given as well as a short account of the meteorological, aerological observations, the investigation of the atmospheric electricity and the work on terrestrial magnetism carried out during the winter 1934-35.

**Galbis J.** - Contribution à l'étude géophysique de la Méditerranée [*Contributio in studendum Mare Mediterraneum e re geophysica*]. 1 carte h. t. Rapp. Pr.-Verb. Cons. Expl. Scient. Méditerranée (n. sér.), IV, 59-83. Paris (1935). **a - 576**

État actuel des travaux dans la partie occidentale. Bathymétrie. Météorologie. Gravimétrie (liste des stations): Magnétisme terrestre (liste des stations). Sismologie (situation des foyers sismiques de la Méditerranée). Relation de quelques raz de marée dans la Méditerranée. Géodésie et photogrammétrie.

**Gomojounov K. A.** - Sur le travail des expéditions hydrologiques [*De operibus peractis ab expeditionibus hydrologicis*]. (En russe). Bull. Arct. Inst., V, 11, 397-398. Leningrad (1935). **a - 577**

Bref compte rendu des expéditions envoyées sur les fleuves suivants de l'Arctique et leurs embouchures: Pjasina, Taymyr, Khatanga, Anabar, Indighirka et Kolyma.

**Gomojunov K. A.** - Hydrological Expeditions of the Arctic Institute in 1935 [*De expeditionibus hydrologicis ab Instituto Arctico peractis, A. 1935*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 8, 245-249, 265-268. Leningrad (1935). **a - 578**

Account of the following expeditions sent out by the Arctic Institute of the USSR during 1935: I. Marine expeditions: 1. Kara Sea, 2. Vilkitzky Strait and Laptev Sea, 3. Across all the seas of the Northern Sea Route. II. River Expeditions: Basin of the Kara Sea. Basin of East-Siberian Sea.

**Gomojunov K. A.** - The Work of the Hydrological Expeditions of 1935 [*De operibus peractis ab expeditionibus hydrologicis. A. 1935*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 9, 285-286, 308-309. Leningrad (1935). **a - 579**

Results of the work of the hydrological expeditions sent to Taimyr, to Anabara, Khatnaga, Kolyma, Lean, and Indigirka Rivers and during voyages of ships along the Northern Sea Route.

**Granqvist G.** - The Thalassological Summer Cruise in 1935. [*Navigatio thalassologica estate A. 1935*]. Tabl., 1 map., 17 pp. Merentutk. laitoks, Julk. (Havsforskn. inst. skr.), 103. Helsinki (1935). **a - 580**

The results are expressed in tables concerning temperature, salinity, density, hydrogen ion activity, oxygen content, percentage of oxygen saturation and alcalinity for various depths, as well as temperature and salinity of surface waters. Meteorological data and table of the transparence of the water without and with colour filters.

**Hamlet H. G.** - Oceanographic Work Carried on by the United States Coast Guard During 1934 and Plans for 1935 [*De operibus oceanographicis peractis ab* U. S. Coast Guard. *A. 1934. Ratio et proposita pro A. 1935*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 214-215. Washington D. C. (1935). **a - 581**

Brief account of the results of the cruises of the 125-foot patrol boat « General Green », during which hydrodynamic survey, oceanographic stations, soundings and measurements of water-temperature have been made. Some hints as to the program of 1935.

**Hebecker O.** - Belehrungsfahrten als Ergänzung und Erweiterung des Unterrichts an Seefahrtschulen [*De expeditionibus discipulos docendi causa peractis a scholis nauticis*]. Seewart V, 6, 184-189. Hamburg (1936). **a - 582**

Allgemeine Gesichtspunkte. Betrachtung des Arbeitsverfahrens. Die Bedeutung der Belehrungsfahrten für den Lehrer.

**Hernandez-Pacheco E.** - Expediciòn cientifica a Ifni [*De expeditione scientiae causa ad* Ifni]. 14 lam. Bol. Soc. Geogr. Nac., LXXV, 9, 516-541. Madrid (1935). **a - 583**

El presente trabajo es copia casi literal del Informe, que, come jefe de la « Expedición Cientifica a Ifni » el autor expuso a la consideración de la Presidencia del Consejo de Ministros para dar cuenta al regreso de los resultados obtenidos en esta primera exploración del país recientemente incorporado de hecho al conjunto de la República Española. Esta Memoria es el primer relato de carácter científico del territorio de Ifni, país que antes de la expedición estaba hermético a los europeos y totalmente desconocido.

**Isachsen G.** - Norvegia rundt sydpollandet. Norvegia – Ekspedisjonen 1930–1931. [*De navi* « Norvegia » *per Polum meridionalem. Navigatio navis* « Norvegia » *A. 1930/31*]. 100 fig., 1 carte h. t. 252 pp., Gyldendal Norsk Forl., Oslo (1934). **a - 584**

Compte rendu de la quatrième expédition de la « Norvegia » autour du pôle Sud envoyée dans les régions antarctiques dans le but d'exécuter des études océanographiques, météorologiques, biologiques et des recherches de baleines.

**Khlynovskij D.** - Explorations scientifiques de la Mer de Barents [*De Mari* Barents *scientiae causa explorato*]. (En russe). Karelo-Mourm. Kraj, 1/2 , 58. Leningrad (1935). **a - 585**

**Khmyznikova V.** - Expedition on the Ice-Breaker « Malyghin » in 1935 [*De navigatione navis glaciei ruptricis* « Malyghin » *A. 1935*]. (In Russ. Engl. Summ.), 1 map. Bull. Arct. Inst., VI, 1, 16-19, 46-48. Leningrad (1936). **a - 586**

Brief account of the expedition sent out from Arkhangheljsk in order to investigate the navigation-route, along the line: Cape Zhelanije-Vilkitzkij Strait, and Dickson Island-Vilkitzkij Strait. The Expedition left Arkhangheljsk on July 6th and returned there on October 28th, 1935. Hydrological and hydrobiological work performed.

**Knipovitsch N.** - Hydrological Survey of the Barents Sea [*De adumbrationibus hydrologicis Maris* Barents]. (In Russ., Engl. Summ.). 1 map. Bull. Arct. Inst., V, 12, 440-442, 465-466. Leningrad (1935). **a - 587**

Results of hydrological investigations carried out in the Barents Sea by the vessel « Persey » and the small investigation ship « N. Knipovitch », during which 155 stations and 87 stations respectively by both the vessels have been made. At all the stations determinations of temperature, salinity, oxygen-content and hydrogen-ions concentration have been made, and in the great majority of cases, determinations of phosphor, nitrates and nitrites content have also been effectuated.

**Kourbatov L. M.** - The Work of the Radiometric Laboratory of the Geological Section of the Arctic Institute in 1935 [*De operibus peractis a Laboratorio radiometrico ad Sectionem geologicam Instituti Arctici pertinente pro A. 1935*]. (In Russ. Engl. Summ.), Bull. Arct. Inst., VI, 1, 10-12, 44-45. Leningrad (1936). **a - 588**

Brief account of the work of the Laboratory principally concerned with (1) investigating the radioactivity of rocks, bottom sediments, waters and other natural elements of the Arctic regions, and (2) elaborating of radiometric methods suitable under Arctic conditions.

**Kurze F. W.** - Nordmeerfahrten der Reichsmarine [*De navigationibus ad regiones Maris Nordici, Classe Germanica peractis*]. 65 Abb., Dietrich Reimer Verl., Berlin (1935). **a - 589**

Vf. beschreibt die Fahrten des Vermessungs- und Forschungsschiffes « Meteor » nach Island, Grönland und Jan Mayen. Er schildert See, Land und Leute und berichtet ausserdem über die zahlreichen ausgeführten Vermessungsarbeiten und ozeanographischen Beobachtungen (S. « Buchbesprechung » von E. Römer, « Seewart », IV, 3, 126-127).

**Le Danois Ed.** - Premiers résultats des croisières de l'Office de Pêches Maritimes exécutées sur le navire « Président Théodore Tissier » [*De navigationibus inquirendi causa peractis per navem* « Président Théodore Tissier » *ad Officium pro piscatione maritima pertinentem. Resultatus priores*]. Rev. Scient., LXXIII, 5, 145-152. Paris (1935). **a - 590**

Conférence faite à l'Institut Océanographique décrivant le lancement, l'armement et la mise au point de l'outillage scientifique du navire océanographique français. Description de la première croisière du navire, au cours de laquelle l'A. a observé certains hauts-fonds sur la côte nord de l'Espagne, a visité l'archipel des Salvages, a exploré l'île de Lanzarote, la plus orientale des Canaries, a exécuté une prospection méthodique du banc Conception, a exploré les fonds marocains en dehors de la zone corallienne, a exécuté une section hydrologique le long de 10ᵉ méridien pour étudier la température et la salinité de l'eau du large de l'Atlantique. Les études d'ordre pratique et scientifique accomplies au cours de la seconde croisière du « Président Théodore Tissier » et les recherches effectuées lors de la troisième croisière du navire dans les eaux américaines.

**McLean Fraser C.** - Oceanography in British Columbia in 1934 [*De oceanographia in Columbia Britannica, A. 1934*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet. Apr. 25-26, 1935, I, 256-268. Washington D. C. (1935). **a - 591**

Account of the oceanographical work performed in British Columbia during the year 1934, treated under three heads: (1) chemical and physical oceanography; (2) biology and fisheries; (3) fisheries technology.

**Meleschko V. P.** - Hydrological Work at the Polar Station on Cape Tscheljuskin [*De operibus hydrologicis peractis per stationem polarem in promunturio* Tscheljuskin *constitutam*]. (In Russ. & Engl.), Bull. Arct. Inst., V, 10, 335-337, 365-366. Leningrad (1935). **a - 592**

Brief account of the work performed during 1934-1935 by the hydrologist of the Station, chiefly concerned with the hydrology of the Vilkitskij Strait; depth soundings with simultaneous measurements of the ice and snow cover, as well as some observations of the ice-drift and magnetic investigation.

**Mosby O.** - Forschungsfahrten um Neufundlad unnd Labrador [*De expeditionibus inquirendi causa peractis ad regiones* Neufundland *et* Labrador]. Seewart V, 3/4, 108-111. Hamburg (1936). **a - 593**

Der Vf., Chef-Ozeanograph des International Ice Patrol Service, berichtet über seine in 1931 und 1932 mit dem Kutter der U. S. Coast Guard « General Greene » ausgeführten Stromuntersuchungen und Eisbeobachtungen. (Sonderausdr. aus dem Polar Aarboken 1935, Oslo).

**Orvin A. K.** - Norges Svalnard-og Ishavs-Undersøkelsers ekspedisjoner i årene 1934 og 1935 [*De expeditionibus a Norvegis peractis ad*

Svalbard *et Mare arcticum A. 1934 et 1935*]. 4 figs., 2 maps. Norsk Geogr. Tidsskr. V, h. 8, 4, 467-484. Oslo (1935). **a - 594**

The Expeditions to northeastern and southern Greenland in 1934. Sounding-expedition to Svalbard in 1935. Hydrographical expedition to Davis Strait in 1935. The expeditions of S/S Busko and Veslekari to northeastern Greenland in 1935. The expedition to Southeastern Greenland in 1935.

**Palmén E.** - The Thalassological Summer Cruise in 1934 [*De navigatione thalassologica, aestate 1934*]. 1 map, tabl. Merentutk-laitoks. julk. (Havsforskn. inst. skr.), 98, 1-17. Helsinki (1935). **a - 595**

Results of this exploration of the waters surrounding Finland expressed in tables for depth- and surface sections concerning temperature, salinity, density, Ph, oxygen content, percentage of oxygen saturation and alcalinity for various depths, meteorological data etc.

**Pineghine N.** - Dans le pays des renards blancs [*Expeditio ad regionem quam vulpes albae habitant*]. (En russe). Ill. 246 pp., Ed. Pisatelej (Ed. des Ecrivains). Leningrad (1935). **a - 596**

Compte-rendu de l'expédition de l'Académie des Sciences de l'URSS aux Iles Novosibirskije en 1928.

**Pravoslavlev P.** - Sur les travaux de l'expédition de l'Académie des Sciences pour l'exploration des baies Mertvyi Koultouk et Kajdak de la Mer Caspienne en 1934 [*De operibus quae pertinent ad expeditionem susceptam ab Academia Scientiarum,* Mertvyi, Kultuk *et* Kajdak *in Mari Caspio explorandi causa, A. 1934*]. (En russe). 1 carte, Bull. Acad. Sc., URSS., Cl. Sc., Mathém. & Nat., VII, 3, 335-347. Moscou-Léningrad (1935). **a - 597**

Après un rapide résumé de l'histoire de l'exploration des Baies Mertvyj Koultouk, e Kajdak qui représentent une des zones les moins connues de la Mer Caspienne, étant donné qu'elles se trouvent dans une région désertique et, à cause de leur profondeur réduite, restent en dehors des voies de navigation, l'A. donne un aperçu des résultats d'une expédition envoyée en 1934 par l'Académie des Sciences de l'URSS dans le but d'étudier ces baies et d'établir, dans la mesure du possible, leur rôle dans l'hydrologie et la biologie de la Mer Caspienne. L'exploration de ces baies avait une importance particulière à cause du phénomène bien connu de l'assèchement de la partie nord de la Mer Caspienne, dans laquelle elles sont situées.

**Riel (van) P. M.** - The Snellius Expedition. Vol. II. Oceanographic Results, Part 2, Soundings and Bathymetric Charts, Chapter II: The Bottom Configuration in Relation to the Flow of the Bottom Water [*Agitur de expeditione navis* « Snellius ». *Vol. II. Resultatus oceanographici. Pars II*$^{a}$: *Scandalia et tabulae bathymetricae. Caput II. Fundi configuratio relate ad currentias in profundum*]. 31 figs., 22 maps, 63 pp., E. J. Brill. Leiden (1935). **a - 598**

A new depth chart of the region of the Dutch East Indian Archipelago and other topographical charts; currents and water circulation between the two Oceans surrounding the archipelago; distribution of depths. A fact of great importance is the correction of the preceding view on the direction of the submarine ridge from Morotai to Mariannenboog. Appendix: correction of the depth chart of the N. O. of the Archipelago.

**Rouzov S. S.** - Revue de l'activité expéditionnaire de la Direction Hydrographique de l'Administration Centrale de la Voie Maritime du Nord (Glavsevmorpoutj) [*De activitate quae pertinet ad Hydrographicam Directionem Administrationis centralis pro Cursu Maritimo Nordico*]. (En russe). Sev. Morsk. Putj, II, 117-118. Leningrad (1935). **a - 599**

**Samoilovitsch R. L.** - 15 Years of Soviet Arctic Exploration [*De regionibus arcticis a Sovietis per 15 annos exploratis*]. (In Russ. & Engl.). Bull. Arct. Inst., 3/4, 56-61, 112-117. Leningrad (1935). **a - 600**

Account of the development of the exploration of the Arctic under the Soviet Government, with special regard to the « Northern Scientific Economic Expedition » (1920), the construction of a Polar Geophysical Observatory in Matochkin Strait (1923), the transformation of the « Northern Scientific Expedition » in 1925 into the « Institute for the Study of the North », the expedition of 1927 to Franz-Joseph Land, the development of systematical navigation in the Kara Sea since 1920, the cruises of the Soviet ice-breakers « Krassin », « Malyghin », and « Sedov », the formal annexation of Franz-Joseph Land, the series of interesting discoveries made in 1930, and the series of expeditions which followed after the session of the Scientific Council of the Arctic Institute, held in March 1931.

**Samoilovitsch R. L.** - Scientific Investigation Work in the Arctic in 1935 [*De investigationibus scientificis in regionibus arcticis, A. 1935*]. (In Russ. & Engl.). Bull. Arct. Inst., 7, 186-189, 223-225. Leningrad (1935). **a - 601**

Program of the investigational work to be performed by the ice-breaker « Sadko » in order to determine the interrelation between the hydrological regimes of the Greenland, Barents and Kara Seas, and those to be carried on by the « Malyghin » and the « Pakhtussov » an the Kara Sea and in the Kara Strait respectively; study of sea routes to be made, by observations on the influence of the ice on the hull of ships and their mechanism, by naval engineers on board the ice-breakers « Sibirjakov », « Lütke », and « Yermak ». Some geological, survey and fishery investigation work will be carried on by special expeditions, sent for this purpose to the Soviet Arctic.

**Sandström J. W.** - Geophysische Untersuchungen im Nordatlantischen Meer. II. III. IV. Mitteilungen [*Investigationes geophysicae per oceanum atlanticum sept.*]. Gerl. Beitr. Geophys. XLIV, 139-144, XLV, 300-305, 1-4. Leipzig (1935). **a - 602**

**Schmidt P. J.** - Scientific Investigations in the Western Part of the Pacific in 1932 [*Investigationes scientificae in regione occidentali oceani Pacifici, A. 1932*]. (In Russ.). Bull. Pacif. Comm. Acad. Sc. USSR., 3, 21-32. Leningrad (1934). **a - 603**

Account of a scientific investigation carried out in the Japan Sea, the Okhotsk Sea and the Bering Sea, by the joint efforts of the Pacific Institute of USSR, the Hydrologic Institute of USSR and the Oceanographic Institute of Moscow: study of the hydrological conditions with special regard to the area of trawler fishery grounds, study of the general characteristics of the fauna and distribution and fundamental biological characteristics of the commercial fish off shores. (Report to the 5th Pacific Congress).

**Schokalskij J. M.** - Les travaux océanographiques et géographiques du navire d'exploration anglais « Discovery II » dans les eaux antarctiques en 1931-1933 [*De operibus oceanographicis atque geographicis peractis navi anglica* « Discovery II » *ad explorationes idonea per regiones antarcticas A. 1931-33*]. (En russe). Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr.), LXVII, 2, 238-243. Moskva-Leningrad (1935). **a - 604**

Buts, organisation et travaux exécutés.

**Schulz B.** - Hydrographische Untersuchungsfahrten in die Nord- und Ostsee mit dem R. F. D. « Poseidon ». 1. Hoofden-Fahrt des R. F. D. « Poseidon » vom 3. bis 26. Januar 1935 [*Navigationes peractae in mare nordicum hydrographiae causa atque in Balticum, navi* « Poseidon ». I° *De expeditione ad* Hoofden *a die 3° ad 26um mensis Januarii A. 1935*]. Ann. d. Hydrogr. LXIV, 3, 113-115. Berlin (1936). **a - 605**

Reise-Route, Leitung, Untersuchungen.

**Schulz B.** - Die Fahrt des Vermessungsschiffes « Meteor » nach dem Europäischen Nordmeere im Herbst 1935 [*De navigatione peracta mari artico europaeo, autunno 1935, a navi* « Meteor » *ad relevamenta idonea*]. 3 Taf. Ann. d. Hydrogr., LXIV, 4, 173-175. Berlin (1936). **a - 606**

Seit der Fahrt des Vermessungsschiffes « Meteor » nach den ostisländischen und ostgrönländischen Gewässern im Sommer 1933 (vgl. ds. Zeitschr., 1934, S. 24 ff.) haben zwei für Durchführung ozeanographischer Arbeiten ausgenutzte Fischereischutzfahrten des « Meteor » stattgefunden, und zwar vom 19. Februar bis zum 30. März 1935 und vom 1. Oktober bis zum 16. November desselben Jahres. Diese zwei Fahrten sind nebst ihren Ergebnissen in der vorliegenden Notiz zusammenfassend geschildert.

**Schulz B.** - Allgemeine Meereskunde [*Oceanographia generalis*]. Handb. Geogr. Wiss., Allg. Geogr. I, 8, 59 S. Akad. Verlagsg. Athenaion. Potsdam (1936). **a - 607**

**Serdjukov** - Hydrographic Work During the Year 1935 [*Opus hydrographicum peractum A. 1935*]. (In Russ. Engl. Summ.). Bull. Arct. Inst., 7, 199-202, 227-228. Leningrad (1935). **a - 608**

After a brief outline of the program elaborated for the hydrographical work for 1935, author communicates the program of work in the western portion of the Northern Sea Route, those of the West-Siberian Hydrographic Department and of the East-Siberian Hydrographic Department of the Northern Sea Route.

**Spigai V.** - La fonotelemetria e la guerra marittima [*De phonotelemetria et bello maritimo*]. 7 fig. Riv. Maritt. LXIX, 1, 30-46. Roma (1936). **a - 609**

**Sverdrup H. U. (Ed.).** - The scientific Results of the Norwegian North Polar Expedition with the « Maud » 1918-1925 [*De resultatibus scientificis expeditionis Norvegicae ad arcticas regiones ab A. 1918 ad A. 1925 per navem* « Maud »]. I a, 1-8, I b, II, III, IV, 1-4, V, 1-20. Bergen (1928-1933). **a - 610**

The volumes published concern: Special reports; Magnetic, atmospheric-electric and auroral results; Meteorology; discussion and tables; Oceanography; Biology, Mineralogy and Ethnography. (See rev. by A. Defant, Naturwiss. 1, 10-14. Berlin, 1936).

**Svetakov L. V.** - La Baie Tixi [*Baja* Tixi]. (En russe). 2 fig. Sov. Sever. 5, 65-67. Moskva (1934). **a - 611**

Compte rendu des travaux de l'expédition envoyée dans l'embouchure du fleuve Léna et dans la Mer des Frères Laptev par l'Administration Centrale de la Voie Maritime du Nord, en 1933.

**Tåning Å. V.** - Blade af « Dana's » Davbog [*De foliis ad ephemeridem nauticam navis* « Dana » *pertinentibus*]. Nord. Havfisk. Tidsskr. IX, 7, 3-5. København (1935). **a - 612**

**Tikhomirov E.** - Quelques résultats de l'expédition de la « Maud » 1918-1925) [*Nonnulli resultatus deprompti ab expeditione navis* « Maud » (*1918-1925*)]. (En russe), 8 fig. Météorol. Vestn. (Bull. Météorol.), 1/2; 1-17. Leningrad (1935). **a - 613**

**Tschausov A.** - L'océanographie polaire sur une nouvelle étape [*De novis progressibus oceanographiae polaris*]. (En russe). 5 fig., 2 tabl. Vestn. Znan., 6, 418-425. Leningrad (1935). **a - 614**

**Tschernigovskij N.** - First Wintering on Lonely Island (Oujedinenija) [*De priore hiematione in insula cui « Solitudinis » nomen est*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 10, 330-333, 362-363. Leningrad (1935). **a - 615**

Brief account of the work performed at the polar station on Lonely Island (lat. 77′ 30° 24″ N., long. 82° 12′ 12″ E.) specially concerned with the dependence of the water-level and the salinity of the water upon the prevailing winds, the tidal and water-temperature observations and observation of the ice-condition. Some actinometrical and climatological and meteorological work has also been carried out.

**Vaughan Wayland T. W.** - Oceanographic Research at the Scripps Institution During April 1934 to April 1935 [*Investigationes oceanographicae a* Scripps Institution *peractae, a mense Aprili 1934 ad Aprilem 1935*]. 1 table. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 221-226. Washington D. C. (1935). **a - 616**

Improvements. Expeditions and oceanographic data. Physical oceanography and marine meteorology. Chemical investigations. Biological investigations. Marine bottom-deposits.

**Victor P. E.** - Rapport préliminaire de l'expédition scientifique française sur la côte Est du Groenland (1934-1935) envoyée par le Musée d'Ethnographie du Trocadéro (Muséum National d'histoire naturelle) [*Relatio prior expeditionis scientificae francogallicae ad litora orientalia Groenlandiae* (*1934-35*). *Relatio delata est ad museum Etnographicum* τοῦ Trocadero]. Géogr., Terre-Air-Mer, LXIV, 5, 321-327. Paris (1935). **a - 617**

Résumé des buts et des travaux de l'expédition qui tout en étant essentiellement ethnographique et anthropologique, permettait de poursuivre d'autres travaux d'ordre géographique et géologique. Les détails des travaux sont réportés dans une liste à part (pp. 324-327).

**Zinger M.** - L'Océan reveillé [*Acta scripta ad expeditionem polarem in regionem* Kolyma *pertinentia*]. (En russe). 18 cartes s. pl. h. t., cartes à tabl. 291 pp., Moskovsk. Tov. Pisatel. Moskva (1934). **a - 618**

Compte rendu de la Ie expédition polaire nord-orientale dans la région de Kolyma.

**Glavsevmorputj** (Administration Centrale de la Voie Maritime du Nord) « Sadko » sous la bandière soviétique [« Sadko » *sub vexillo sovietico*]. (En russe). Fig., tabl., 5 cartes à diagr. h. t., 232 pp., Ed. Glavsevmorputj. Leningrad (1935). **a - 619**

Recueil d'articles des membres de la première expédition arctique du « Sadko » sous la bandière soviétique en 1934.

**Navy Department Bureau of Engineering** - American Polar Year Expedition, 1932-1933. Radio Section [*De expeditione americana anno polorum 1932-1933 perdurante. Sectio pro radiotelegraphia*]. 4 tables, 15 pls., 12 pp., Navy Dept. Bur. Eng. Rep. H-1032. Nav. Res. Labor. Bellevue, D. C. (1934). **a - 620**

**Première Conférence Géographique Soviétique** - Travaux de la . . . . . . . . (11-18 avril 1933), vol. 3. Séances des Sections [*De operibus peractis, prima perdurante Conferentia geographica sovietica (11-18 aprilis 1933)*]. (En russe). Fig., 6 cartes h. t., 429 pp., Ed. Soc. Géogr. Etat. Léningrad (1934). **a - 621**

Compte rendu des travaux de la section de Géographie Physique, et des sous-sections: géomorphologique, hydrologique, biogéographique et climatologique, parmi lesquels on peut signaler les rapports de V. P. Kaljanov sur les « Travaux de l'Institut Océanographique de l'Etat dans le domaine de la géomorphologie et de la géologie quaternaire des côtes des mers septentrionales » et sur les « Caractéristiques fondamentales de la géomorphologie de la côte occidentale de la péninsule de Kanine sur la base des matériaux de l'expédition du GOIN en 1930 ».

**R. Società Geografica Italiana** - Risultati preliminari della campagna oceanografica della Spedizione J. Murray nel Mar Rosso [*Resultatus priores deprompti ab expeditione oceanographica* J. Murray *in Mare Rubrum*]. Boll. Soc. Geogr. It., maggio-giugno, 344-397. Roma (1935). **a - 622**

**Ufficio (R.) Geologico** - Bibliografia geologica italiana per gli anni 1915-1933 [*Bibliographia geologica italica. A. 1915-1933*]. 188 pp., Istit. Poligr. dello Stato. Roma (1935). **a - 623**

**K. A. G.** - Travaux de l'expédition hydrographique sur le brise-glace « Malyghine » [*De operibus peractis perdurante expeditione hydrographica navis glaciei ruptricis* « Malyghin »]. (En russe). Bull. Arct. Inst., V, 9, 289. Leningrad (1935). **a - 624**

Bref compte rendu des travaux exécutés dans la partie septentrionale de la Mer de Kara et de l'exploration de la « tâche blanche » située au nord-ouest de l'Ile Oujédiénijé dans laquelle on a découvert un entier archipel d'îles et d'îlots.

**K. A. S.** - Winter Work of the Geological Expedition to Chukchee Peninsula in 1934-1935 [*Opus hiemale peractum perdurante expeditione geologica ad paeninsulam* Tschuktschi *A. 1934-35*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 3/4, 80, 121-122. Leningrad (1935). **a - 625**

Brief account of the cartographical surveys made by the wintering party of the expedition under the leadership of S. V. Obrutchev, in Chaun Bay and on the coast of the East-Siberian Sea, as well as on Ayon Island.

**L.** - 923 Meter unter dem Meeresspiegel [*Metra 923 in profundum*]. 6 Abb., Umschau XL, 3, 46-49. Frankfurt a. M. (193 ). **a - 626**

Etwas von Beebe's Fahrten. Beschreibung seiner Tiefseekugel.

**T. K.** - Le rapport de l'Expédition Antarctique Australienne 1915 [*Relatio de expeditione antarctica australiensi, A. 1915*]. (En russe). Klimat i Pogoda, 3, 23. Leningrad (1935). **a - 627**

**An.** - Organizacja Polskiej Wyprawy Polarnej na Spitsbergen [*Ratio et munera ad expeditionem polonam in* Spitsbergen *pertinentia*]. Biul. Towarz. Geofizyk., Zesc. 9/10, 49-50. Warszawa (1934). **a - 628**

**An.** - Expedition to High Arctic Latitudes [*De quadam navigatione ad arcticas peraltas latitudines*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 3/4, 81, 117-118. Leningrad (1935). **a - 629**

Brief account of the program of the expedition of the ice-breaker « Sadko » to the region north of the extreme archipelagos of the Continental Shelf-Spitzbergen, Franz-Joseph Land and Severnaja Zemlja.

**An.** - L'Arctique en 1935 [*De regionibus arcticis, A. 1935*]. (En russe). Bull. Arct. Inst., V, 5/6, 123-125. Leningrad (1935). **a - 630**

Extrait d'une interview avec le Directeur de la Voie Maritime du Nord O. J. Schmidt, concernant les derniers travaux de son Administration et le programme prévu pour 1935. Cette année signera le début de l'exploitation pratique de la Voie Maritime du Nord, étant donné que le Conseil du Travail et de la Défense de l'U. R. S. S. a approuvé un plan de transports qui devront s'effectuer par cette Voie. Parallèlement on continuera l'exploration scientifique de l'Arctique Soviétique qui sera partagée en plusieurs sections, desservies chacune par un des puissant brise-glace russes. Quelques aperçus sur le développement projeté de l'exploitation et de l'utilisation des ressources minérales, végétales et animales de l'Extrême Nord russe.

**An.** - Arctic Stations of the Chief Administration of the Northern Sea Route [*Stationes arcticae quae pertinent ad Centralem Administrationem pro Via maritima Nordica*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 9, 282-283, 305-307. Leningrad (1935). **a - 631**

Brief account of the work carried out on the Polar Stations of Cape Zhelanija, Ozernaja (Sheleznyj Vorota), Matotchkin Shar, Russki Isl., Cape Tcheljuskin, Cape Nordwick, Cape Billings, and Cape Schmidt.

**An.** - La Deuxième Expédition Antarctique de Byrd [*De secunda expeditione ad regiones Antarcticas a* Byrd *peracta*]. (En russe). Bull. Arct. Inst., V, 9, 293. Leningrad (1935). **a - 632**

Bref compte rendu des travaux de l'expédition de Little America en 1934 avec référence spéciale aux explorations conduites par P. Siple, A. Blackburne, à la croisière de « Bear of Oakland » et au retour de l'expédition de Byrd.

**An.** - Deuxième Expédition Antarctique de Ellsworth, 1934-1935 [*De secunda expeditione ad regiones antarcticas ab* Ellsworth *peracta. A. 1934-35*]. (En russe). Bull. Arct. Inst., V, 9, 293-294. Leningrad (1935). **a - 633**

Bref compte-rendu de l'expédition, dont le but principal était de survoler le continent antarctique de la mer de Weddel jusqu'à la Mer de Ross.

**An.** - Expédition Antarctique Britannique sur la Terre de Graham [*De expeditione a Britannis suscepta ad Terram* de Graham]. (En russe). Bull. Arct. Inst., V, 9, 294. Leningrad (1935). **a - 634**

Description de la seconde période de l'expédition, au cours de l'hiver 1935, passé dans les parages des Iles de l'Argentine et consacré, en dehors des explorations des alentours immédiats, à la préparation de l'exploration du littoral entre la Terre de Charcot et la Terre de Luitpold, qui représente une zone complètement inconnue encore.

**An.** - La navigation de la « Discovery II » en 1933-1935 [*De navigatione navis* « Discovery II » *A. 1933-35*]. (En russe). Bull. Arct. Inst., V, 9, 294-295. Leningrad (1935). **a - 635**

Extrait du rapport sur le voyage antarctique, publié dans « Polar Record », n° 10.

**An.** - Observations océanographiques faites de Barry (Angleterre) à l'Archipel de Kerguelen (12 octobre-2 décembre 1923). [*Observationes oceanographicae a regione* Barry (*in Anglia*) *ad archipelagus* Kerguelen *peractae*. (*A die 12 octobris ad diem 2 decembris 1923*)]. Bull. Soc. Amis. Inst. Océanogr., XIV, 51, 5-6. Le Havre (1935). **a - 636**

**An.** - Second Expedition to the Estuary of the River Lena. Deuxième expédition à l'estuaire de la rivière Lena [*De secunda expeditione ad accessum fluminis* Lena]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 60-61. Monaco (1935). **a - 637**

Extract from the « Bulletin of Arctic Institute », n° 8/9, Leningrad, 1934, dealing with the hydrographic expedition on board the ice-breaker « Yermak ».

**An.** - Arctic Expeditions during 1935. Expéditions arctiques au cours de l'année 1935 [*De expeditionibus ad regiones arcticas, A. 1935*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Int. Hydrogr., V, 108. Monaco (1935). **a - 638**

Brief account of expeditions to the Arctic organized by the U. S. S. R., and by Norway.

**An.** - Antarctic Research 1935. Exploration dans l'Antarctique en 1935 [*De explorationibus ad regiones antarcticas, A. 1935*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Int. Hydrogr., V, 108-109. Monaco (1935). **a - 639**

Brief account of Antarctic research carried out by the tanker « Thorshavn » belonging to the Lars Christensen Whaling Company and information on the completion of the third expedition of the R. R. S. « Discovery II » in Antarctic waters.

**An.** - The John Murray Expedition to the Arabian Sea (Continued) - Expédition John Murray à la Mer d'Arabie (suite) [*De expeditione* « John Murray » *ad Mare Arabicum*]. Int. Hydrogr. Bull. - Bull. Int. Hydrogr., VI, 121-122. Monaco (1935). **a - 640**

(See prev. issues of « Int. Hydrogr. Bull. » since 1933) - Further information, on hand of note published in « The Marine Observer », October, 1935, containing the results of echo-soundings carried out by the John Murray Expedition.

**An.** - Oceanographic Resarch - Recherches océanographiques [*Investigationes oceanographicae*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Int. Hydrogr., VI, 122. Monaco (1935). **a - 641**

Brief account of the oceanographic research work of the German exploring vessel « Meteor » in the area situated between South Greenland and Newfoundland.

**An.** - Expedition to High Arctic Latitudes - Expédition vers la haute Arctique [*De quadam expeditione ad Antarctidem septentrionalem*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Int. Hydrogr., VI, 122-123. Monaco (1935). **a - 642**

Extract from the « Bulletin of the Arctic Institute », n° 3/4, p. 117, 1935, Leningrad: the expedition of the ice-breaking S. S. « Sadko » to the district north the extreme archipelagos of the Continental Shelf. - Some other information on the expedition gathered from « La Géographie », Paris, 1935 and other sources.

**An.** - Voyages of Exploration - Voyages d'exploration [*De navigationibus explorandi causa*]. (In Engl. & French). Int. Hydrogr. Bull., VI, 123-124. Monaco (1935). **a - 643**

Short note on the sending by the Service Hydrographique of the French Navy to the International Hydrographic Bureau of a reproduction of a chart entitled « Les Français au cœur de l'Amérique » (The French in the heart of America), prepared on the occasion of the first voyage of the « Normandie » in 1935.

**An.** - Arctic Expeditions - Expéditions arctiques [*De expeditionibus ad regiones arcticas*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., II, 27-28. Monaco (1936). **a - 644**

Brief account, on hand of information published in « The Polar Record », on arctic exploration carried out during the summer 1935 by expeditions of different countries.

**An.** - Antarctic Expeditions - Expéditions antarctiques [*De expeditionibus ad regiones antarcticas*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., II, 29. Monaco (1936). **a - 645**

Extract from « The Polar Record », Cambridge, January, 1936, dealing with the British Graham Land Expedition and the expedition of « Discovery II ».

**An.** - Communication du brise-glace « Krassine » [*Communicatio navis glaciei ruptricis* « Krassin »]. (En russe). 1 fig., Izv. Gos. Ghidrol. Inst., 67, 16. Leningrad (1934). **a - 646**

Travaux hydrographiques exécutés par l'expédition au cours de son voyage à l'Ile de Vrangel dans la partie nord-occidentale de la Mer de Tchoukhotsk et dans la partie orientale de la Mer Sibérienne Orientale.

**An.** - Travail scientifique à bord du « Lütke » [*Opus scientificum peractum in navi* « Lütke »]. (En russe). Meteorol. Vestn., 10/12, 338-339. Leningrad (1934). **a - 647**

Chronique des travaux exécutés sur le navire au cours de son expédition dans l'Arctique.

# GEOLOGIA MARIS

## Geologia generalis bacini oceanici - Marium origo - Vestigia veterum marium.

**Alcock F. J.** - Geology of Chaleur Bay Region [*De geologia in* Chaleur Bay]. Ills., maps, 146 pp., Geol. Surv. Canada Dpt Mines. Mem. No. 183. Ottawa (1935).

( — ) Version française: J. O. Patenaude. Ottawa (1935). **a - 648**

**Arkell W. J.** - On the Nature, Origin, and Climatic Significance of the Coral Reefs in the Vicinity of Oxford [*De natura, origine et climate rupium corallinacearum apud Oxonium*]. Quart. Journ. Geol. Soc., XLI, 77-110. London (1935). **a - 649**

Author gives a vivid description of the surroundings of Oxford during part of the Jurassic period, which consisted of a clear shallow sea with a complex of true coral reefs intersected by narrow channels. He discusses therefore the climate of the region under consideration during this period and concludes that either the corals have changed their habits since Jurassic times, or the climate was markedly warmer than now. The cause of the extension of a subtropical climate to Britain is not discussed, but the author remarks that « many lines of evidence seem to point to the conclusion that in Mesozoic times there was a more uniform climate over most parts of the globe, and that the regions that are now cold or temperate were considerably warmer ».

**Aschauer H. & Hollister J. S.** - Ostpyrenäen und Balearen; mit einem paläontologischen Beitrage von O. H. Schindewolf und Schlussbetrachtungen von H. Stille [*De montibus Pyrenaeis insulisque Balearibus ex palaeontologia, cum observationibus* H. Stille. O. H. Schindewolf *auctoribus*]. 8 Taf., 44 Abb., 208 S. Beitr. z. Geol. d. westl. Mediterrangebiete hrsg. v. H. Stille Nr. 11, Abh. Ges. Wiss. Göttingen, math.-naturw. Klasse III. Folge, Heft 10. Weidmannsche Buchhandl. Berlin (1934). **a - 650**

Die viel umstrittene Frage der östlichen Fortsetzung der Pyrenäen wird hier endgültig geklärt. Es wird auch beinahe festgelegt, dass die Fortsetzung des Südastes der Pyrenäen in den Balearen zu suchen ist. Von grosser Bedeutung sind die von Hollister im Jungpaläozoikum Menorcas gefundenen, zwei altersverschiedenen Faunen gehörenden, Ammonoideen, von denen eine die ufernahe marine (paralische) Zone umfasst und die andere mediterranen Charakter hat.

**Baak J. A.** - Regional Petrology of the Southern North Sea [*Petrologia in regionibus meridionalibus Maris nordici*]. H. Veenman en Zn. Wageningen (1936). **a - 651**

**Basse E.** - Etude géologique du Sud-Est de Madagascar [*Studium geologicum regionum in* Madagascar *sudorientali*]. 26 fig., 3 pl., 12 cartes, 4 cartes h. t., 159 pp., Mém. Soc. Géol. France. Paris (1934). **a - 652**

Thèse de géologie présentée à la Faculté des Sciences de Paris et qui forme une très importante contribution à l'étude de la formation du sol de Madagascar. La région illustrée comprend tout le territoire Sakalava situé au nord au nord-est et à l'est de Tulear.

**Bessmertny A.** - L'Atlantide (trad. franç. par F. Gidon) [*De Atlantide*]. 23 fig. & cartes, 270 pp., Payot. Paris (1935). **a - 653**

Traduction française de l'ouvrage allemand contenant un exposé des hypothèses relatives à l'énigme de l'Atlantide. Le traducteur, M. Gidon, a ajouté un chapitre très important traitant des submersions irlando-armoricaines de l'âge du bronze et de la tradition atlantidienne.

**Blanc C. A.** - Formazioni pleistoceniche nel sottosuolo della Versilia (Nota preliminare) [*De formationibus pleistocenicis in inferiore solo Versiliae*]. 2 fig., Atti Soc. Toscana Sc. Natur., XLII, 5, 129-143. Pisa (1934). **a - 654**

L'A. segnala nel lago di Massaciuccoli una successione stratigrafica pleistocenica comprendente i relitti di una foresta di Conifere di tipo subartico, una fauna marina fossile di carattere più caldo dell'attuale e un « deserto fossile ».

**Blom J. C. E.** - Geologische Probleme im Malayischen Archipel [*De problematis geologicis archipelagi Malesiae*]. 1 Karte, 72 S. Inaug. Diss. Friedrich Schiller-Universität. Jena (1934). **a - 655**

Allgemeine Lage und geologische Grundlagen des Archipels. Analyse des Archipels.

**Bondon J. & Yovanovitch B.** - Sur les terrains antécarbonifères du Maroc Occidental [*De terrenis antecarboniferis Mauretaniae occidentalis*]. 1 carte, C. R. Acad. Sc., CCII, 16, 1380-1382. Paris (1936). **a - 656**

Brève description des terrains antécarbonifères que l'on rencontre dans la partie du Maroc située à l'Ouest du méridien de Casablanca et dont les facies lithologiques et paléontologiques sont remarquablement constants; ils sont, en outre, affectés par un système de plis, orientés N 10° E que l'on peut suivre à travers les plissements postérieurs et que l'on est tenté de faire continuer sous l'Océan.

**Bordas A. F.** - Las formaciones sedimentarias del terciario inferior de la Patagonia [*De formationibus sedimentariis aetatis tertiariae inferioris Patagoniae*]. 17 fig., Rev. geogr. Amer., IV, 26, 305-316. Buenos Aires (1935). **a - 657**

**Bourcart J.** - Le Quaternaire du littoral de Rabat (Maroc) [*De aetate quaternaria in litoribus mauretanicis regionis* Rabat]. C. R. Acad. Sc., CCI, 19, 839-840. Paris (1935). **a - 658**

Ce quaternaire a enregistré les mouvements qu'a subi le Maroc atlantique; il se trouve plissé en très grands anticlinaux et synclinaux qui suivent l'orographie actuelle du Maroc. Les différentes formations et fossiles marins.

**Bourcart J.** - Le Quaternaire dans la région de Meknès (Maroc) [*De aetate quaternaria in Mauretanica regione* Meknès]. C. R. Acad. Sc., CCI, 21, 971-973. Paris (1935). **a - 659**

La plaine, ou le plateau du Saïs, qui s'étend de Meknès à Fès, est considérée par l'A. comme l'équivalent du Quaternaire marin dur. Ces calcaires contiennent une faune de Mollusques totalement différente de la faune pliocène du Maroc oriental. Comparaison avec les recherches précédentes et avec d'autres formations.

**Bourcart J.** - Le Quaternaire marin sur le littoral du Cap Saint-Vincent à l'estuaire du Sado [*De quaternario marino in litoribus promunturii* Saint-Vincent *ad accessum fluminis* Sado]. C. R. Acad. Sc., CCII, 10, 856-858. Paris (1936). **a - 660**

L'A. compare les résultats de l'étude morphologique conduite par M. Lautensach avec les faits stratigraphiques qu'il a observés au Cap Saint-Vincent et décrits dans une Note précédente (V.: C. R. Acad. Sc., CCI, p. 1403, 1935) concernant l'ablation par la mer de cette partie du littoral nord-marocain.

**Bowie W.** - The Origin of Continents and Oceans [*De origine terrarum continentium et oceanorum*]. Scient. Monthly, Nov. Lancaster, Pa. (1935). **a - 661**

Some hints of new theories about this geophysical problem. The problem considered by geodesists, mineralogists and seismologists. Planetesimal and isostatical hypothesis. Darwin - Fisher hypothesis.

**Chaput E.** - Les plissements tertiaires de l'Anatolie Centrale [*Plicae tertiariae in Anatolia centrali*]. C. R. Acad. Sc., CCII, 26, 1404-1405. Paris (1935). **a - 662**

Description des zones plissées dans les régions galates de l'Anatolie Centrale qui relient ici les chaînes pontiques et les chaînes tauriques; ces chaînes ont été plissées au Nummulitique après le dépôt de la série gypsifère.

**Cipolla F.** - Nuovi contributi alla geologia e geografia fisica di Mazara del Vallo e suoi dintorni (prov. di Trapani) [*Contributiones novae in geologiam et geographiam physicam regionis* Mazara del Vallo *eiusque propinquitatum*]. 9 tav., Boll. Soc. Sc. Nat. Econ., XVI, 28-35. Palermo (1934). **a - 663**

L'A. dimostra che la costituzione geologica di Mazara del Vallo e suoi dintorni è un po' diversa da quella indicata dalla carta geologica ufficiale e mette in evidenza alcune particolarità geografico-fisiche e paleontologiche.

**Cipolla F.** - Il terziario superiore e il quaternario dell'Italia meridionale e della Sicilia e l'opera di Giuseppe Seguenza [*De tertiario superiore et quaternario Italiae meridionalis et insulae Siciliae relate ad opera Josephi* Seguenza]. Giorn. Sc. Nat. ed Econ., XXXVIII, 3, 1-16. Palermo (1934). **a - 664**

L'A. prova, tenendo presenti i risultati di precedenti suoi studi e di quelli di geologi italiani e stranieri, che nella classificazione cronologica e stratigrafica del Terziario superiore dell'Italia meridionale e della Sicilia, non può disconoscersi, ancora dopo più di un cinquantennio, la grande importanza della creazione, fatta da G. Seguenza di un piano Zancleano nella parte inferiore del Pliocene, non che della di lui scoperta degli strati a strombi alla fine del Quaternario marino.

**Cipolla F.** - Sul quaternario della Sicilia meridionale [*De quaternario in Sicilia meridionali*]. 2 tav., Giorn. Sc. Nat. Econ., XXXVIII, 4, 1-8. Palermo (1934). **a - 665**

Si mettono in evidenza nuove caratteristiche del Quaternario della Sicilia meridionale, segnalandone specialmente interessanti tracce di livelli marini ad esso corrispondenti non che particolarità stratigrafiche e paleontologiche degne di rilievo nelle tre località di Sambuca sicula, Sciacca e Agrigento.

**Comte P.** - La série dévonienne du Léon (Espagne). [*De serie devoniana ad regionem* Léon (*in Hispania*) *pertinente*]. C. R. Acad. Sc., CCII, 4, 337-339. Paris (1936). **a - 666**

L'A. donne le résumé d'une étude qu'il a faite d'un remarquable développement de terrains primaires, non métamorphiques, généralement fossilifères et de là particulièrement instructifs au point de vue stratigraphique et que l'on rencontre dans la chaîne cantabrique dans le nord du Léon (Espagne). Il esquisse dans la présente note l'échelle, à laquelle ses recherches l'ont conduit. La coupe exécutée présente un grand intérêt, car on y voit les faunes marines évoluer plus progressivement que dans les régions ardennaises et rhénanes, types classiques du Dévonien de J. Gosselet.

**Comte P.** - Le Dévonien inférieur du Léon (Espagne) [*De aetate devoniana inferiore ad regionem* Léon (*in Hispania*) *pertinente*]. C. R. Acad. Sc., CCII, 9, 771-773. Paris (1936). **a - 667**

Quelques arguments et quelques comparaisons complétant une Note précédente concernant le Dévonien inférieur du Léon (V.: C. R., CCII, 337-339, 1936). L'analyse faite par l'A. éclaire la monographie de Verneuil et démontre que le Dévonien inférieur du Léon a d'étroites relations avec celui des Basses-Pyrénées et surtout avec le Dévonien de la Bretagne, avec lequel il présente des analogies frappantes.

**Darder Pericás B.** - Mapa geològic de les Serres de Llevant e de l'Illa de Mallorca [*Tabula geologica quae pertinet ad* Serres de Llevant *et ad Balearem majorem*]. 1 mapa. Palma (1932). **a - 668**

El trabajo del doctor Darder consta de dos hojas, denominadas respectivamente Santany-Felanitx y Artá-Manacor; la escala es de 1/50.000.

**D'Erasmo G.** - Il mare pliocenico nella Puglia [*De mari pliocenico in Apulia*]. 2 carte f. t., Mem. Geol. e Geogr. di Giotto Dainelli, IV, 1933-1934, 45-138. Firenze (1935). **a - 669**

L'A. rende noti i risultati dell'esame sulla costituzione geologica delle Puglie, mettendo in evidenza i limiti del mare Pliocenico e la varia intensità dei sollevamenti postpliocenici finora non sintetizzati da alcuno per detta regione. Questo studio giova a chi vorrà ulteriormente ricostruire l'interessante periodo di storia geologico delle Puglie. Corredato da copiosa letteratura, esso è diviso in cinque parti che trattano rispettivamente: 1° il Tavoliere e il subappennino; 2° la Regione garganica; 3° la Regione murgiana o Terra di Bari; 4° la Fossa premurgiana; 5° la Penisola salentina o Terra d'Otranto.

**Ermilov I. J.** - Explorations géologiques sur la péninsule de Ghydansk en 1927 [*De explorationibus geologicis in paeninsula* Ghydansk *A. 1927*]. (En russe). 1 carte. Trudy Polj. Komm. Acad. Naouk SSSR (Trav. Comm. Polaire Acad. Sc. URSS), 20, 11-25. Moskva-Leningrad (1935). **a - 670**

**Ermolaev M. M.** - Geological Work of the Expedition on the Icebreaker « Sadko » [*Opus geologicum peractum inter navigationem navis glaciei-ruptricis* « Sadko »]. (In Russ. & Engl.). Bull. Arct. Inst., V, 10, 328-329, 360-361. Leningrad (1935). **a - 671**

Brief account of the geological work carried out during the « Sadko » expedition in the summer 1935 to high latitudes. Special attention has been directed to the geology of the sea-bottom deposits and geological sections were made during landings. But the latter were very rare, so that the main results concern the survey of the sea-bottom. The chief objects of the investigations were problems of lithogenesis, the occurrence of various deposits in the whole area surveyed, and the study of the various facies in the epicontinental sea and in the open ocean.

**Frebold H.** - Untersuchungen über die Verbreitung, Lagerungsverhältnisse und Fauna des Oberen Jura von Ostgrönland [*Investigationes in propagationem, stratificationem et faunam jurassicam superiorem Groenlandiae orientalis*]. 14 Abb., 3 Taf., Medd. Grönl., XCIV, 1, 1-81. København (1933). **a - 672**

Zusammenfassende Wiedergabe der heutigen Kenntnisse über die Verbreitung des Oberen Jura in Ostgrönland. Die jurassische Transgression hat zwischen der Callovianischen und der Oxfordianischen Periode stattgefunden und hat sich auch in das Kimmeridgische Zeitalter gestreckt zur Zeit, wo das Meer sich von Ostgrönland zurückgezogen hatte. Es werden ausserdem die tektonischen und paläographischen Charakteristika besprochen und eine interessante Folgerung davon gezogen, bzw. über die Existenz eines insularischen Grenzlandes, welches sich ostwärts von den jurassischen Ablagerungen und westwärts von dem altertümlichen Skandischen Meere ausdehnte.

**Frebold H.** - Geologie von Spitzbergen, der Bäreninsel, des König Karl- und Franz-Joseph Landes [*De geologia in* Spitzbergen, *Insula Ursorum, Terra Caroli regis et Terra Francisci Josephi*]. 81 Abb., 8 Taf., 195 S., Geologie der Erde hrsg. E. Krenkel. Berlin (1935). **a - 673**

Nach einer einleitenden Beschreibung der Lage und der Grenzen dieser Inseln, welche den oberen Teil des Barentschen See-Schelfes ausmachen, bespricht Vf. die verschiedenen geologischen Bildungen, ihre allgemeinen Charakterzüge, Ausbreitung und Alter und vergleicht sie mit anderen Bildungen desselben Alters. Erörterung des submarinen Reliefs der Barentssee mit Berücksichtigung der Theorien von Nansen und Ahlmann. Uebersicht der geologischen Entwickling der verschiedenen Inselgruppen.

**Fromaget J.** - Nouvelles observations sur le Trias supérieur du Tonkin occidental et sur l'âge norien des couches à *Myophora napengensis*. [*Observationes novae circa aetatem Triassicam superiorem ad* Tonkin *occidentalem regionem pertinentem circaque aetatem norican alveorum qui continent « Myophora napengensis »*]. C. R. Acad. Sc., CCI, 19, 843-845. Paris (1935). **a - 674**

Ces observations ont été faites dans la partie Sud du territoire militaire de Lai Chau, où viennent aboutir d'une part, la zone déprimée dite Synclinal de Sam Neua dans laquelle le Carnien est bathyal et le Norien néritique, et, d'autre part, l'Arc cristallin du Song Ma recouvert par du Carnien subcontinental et par du Norien néritique et littoral ou bien encore lagunaire. Liste des fossiles des différentes couches.

**Furon R.** - Notes sur la Paléogéographie de l'Océan Atlantique. 1. La géologie des îles du Cap Vert [*Notae de palaeogeographia oceani Atlantici. Ium. De geologia insularum Promunturii Viridis*]. Bull. Mus. Nat. Hist. Natur., VII, 2e sér., 4, 270-274. Paris (1935). **a - 675**

Observations précédentes. Différentes couches et faune fossile (*Ostrea, Cerithium, Algae*). Hypothèse d'une liaison terrestre entre les îles du Cap Vert et la côte sénégalaise.

**Furon R.** - Revue de géologie. Les progrès récents de la stratigraphie extra-européenne [*Inspectio geologica. De recentibus progressibus in stratigraphiam extraeuropaeam*]. Rev. gén. Sc. pures et appl., XLVI, 11, 359-366. Paris (1935). **a - 676**

Asie, Afrique, Amérique: Stratigraphies et géologies générales. Mers anciennes et fossiles marins.

**Furon R.** - L'Antarctide. Esquisses géologiques [*De Antarctide. Compendium geologicum*]. Rev. Gén. Sc. pures et appl., XLVII, 15 mars, 144-151. Paris (1936). **a - 677**

**Gerth H.** - Geologie Südamerikas [*De geologia Americae meridionalis*]. 25 Abb., 13 Taf., 188 S. Geol. d. Erde hrsg. v. E. Krenkel. Zweiter Teil, VI, Gebr. Bornträger. Berlin (1935). **a - 678**

Die geologische Entwicklung Südamerikas während des Mesozoikums. Marine Schichten und Fossilien.

**Gorbatzky G. W.** - Geology of the Lower Pechora District [*De geologia inferioris partis fluminis* Petschora]. (In Russ., Engl. Summ.). Tabl., 1 pl. o. t., Trans. Arct. Inst., XV, 5-25. Leningrad (1935). **a - 679**

Results of the geological and geomorphological investigations of the entire district of Lower Pechora - 200 km. upstream from the mouth of the river and its tributaries, carried out by the Expedition of the Arctic Institute in 1932. The entire district consists of exclusively quaternary deposits, most fully and typically represented on the right shore of the Great Pechora, somewhat above Velikovissokhny Strait. At the present time the district is evidently in the stage of a rather intensive upheaval, which is dealt with by the author.

**Grabau A. W.** - Palaeozoic Formations in the Light of the Pulsation Theory; Part I: Lower Cambrian Pulsation. Part II: The Middle Cambrian or Albertan Pulsation. Parts III, IV: The Cambrovician Pulsation [*De formationibus palaeozoicis secundum rationem quae dicitur « ratio pulsationis ». Pars Iª: De pulsatione aetatis cambrianae inferioris. Pars IIª: De pulsatione aetatis cambrianae intermediae seu aetatis Albertanae. Partes IIIª et IVª: De pulsatione aetatis Cambrovicianae*]. Sc. Quart., Nat. Univ. Peking, IV-V, 1, 4; 1-2, 27-184, 355-832; 1-316. Peking (1934-1935). **a - 680**

Detailed survey of the stratigraphy and faunas (about 2000 species listed) of the Cambrian and Lower Ordovician formations throughout the world. Discussion on the regressive and transgressive phases on the basis of the pulsation theory according to which the « pulsations are due apparently to alternate swelling and contraction of the sea-bottom ».

**Grigorjev A.** - La géomorphologie de la presqu'île Kola d'après les récentes recherches [*De geomorphologia paeninsulae* Kola *ex investigationibus recentibus*]. 11 pp., C. R. Dél. Sov. Congr. Int. Géogr. Varsovie; Inst. Scient. Publ. Atl. Sov. Leningrad (1934). **a - 681**

**Ingmar E.** - Bergslagens marina gräns. En prioritetsfråga [*De limite marino regionis* Bergslagen *in Suetia. Agitur de quadam quaestione antecessionis*]. Geol. Fören. Förh. 114-118. Stockholm (1934). **a - 682**

**Isbary G.** - Das Inselgebiet von Ameland bis Rottumeroog. Morphologische und hydrographische Beiträge zur Entwicklungsgeschichte der friesischen Inseln [*Regio insularis ad* Ameland *pertinens usque ad* Rottumeroog. *Contributiones morphologicae et hydrographicae in historiam geologicam Insularum Frisiarum*]. 8 Taf. mit Karten a. T., 55 S. Aus d. Arch. Dtsch. Seew., LVI, 3. Hamburg (1936). **a - 683**

Nach einem eingehenden Studium über die einzelnen Dünenbildungen, die Umrissveränderungen der Inseln, die Watten und Gaten und ihre Stromsysteme schliesst Vf. folgendes: « Obgleich die friesischen Inseln (ausser Texel) allein vom Gezeitenmeer am Rande einer Flachlandsküste

geschaffene Gebilde sind, müssen sie ehemals über die Zwischenzone der heutigen Watten eine engere Verbindung mit dem Festland gehabt haben. Die Zerstörung dieser Zwischenzone, bereits beginnend mit der Entstehung der grossen Meereseinbrüche im Ablauf einer säkularen Senkung, steigerte sich, als nach dem Abschluss der Senkung die Ostwanderung des gesamten Küstensaumes wieder stärker in die Erscheinung trat. Die Tiefs der alten Meeresbuchten wurden unter dem Einfluss der Gezeitenströmungen von den Meeresbuchten abgelöst und nach O gedreht. Sie entwickelten sich dadurch zu selbständigen Stromsystemen, die mehr und mehr die Zwischenzone aufschlossen und die in Ruhezeiten landwärts gewachsenen Inseln von der Wattseite angriffen und aushöhlten ».

**Ivanov I. M.** - The Coal Deposits of Franz-Joseph Land [*De carboniferis depositis in Terra Francisci Josephi*]. (In Russ., Engl. Summ.)- 4 figs., 2 tables, Trans. Arct. Inst., XV, 27-37., Leningrad (1935). **a - 684**

Results of a geodetic survey carried out in the region of Nansen, Hooker and Nordbruck Islands, Queen-Alexandra Land and Prince-George Land during journeys in the spring 1930. A stratigraphic section and the geologic map of Hooker and Scott Kelty Islands have been executed and are appended to the article.

**Jirmounsky A.** - Histoire du relief du bassin de la rivière Loutchessa et la partie contiguë du partage des eaux de la Dvina et du Dnjepr [*Historia regionis fluminis* Lutchessa *et partium propinquarum fluminum* Dvina *et* Dniepr]. (En russe). 1 carte, 1 diagr., 1 tabl. Izv. Gos. Gheogr. Obstsch., (Bull. Soc. Géogr. Etat); LXVII, 6, 752-759. Leningrad-Moskva (1935). **a - 685**

Sur la base d'observations et de levés exécutés dans la région étudiée, l'A. trace l'histoire des bassins des fleuves Dvina et Dnjepr, avec référence spéciale à leur limite de séparation, qui représente en même temps la limite de séparation entre la Mer Noire et la Mer Baltique.

**Klenowa M. W.** Bericht über die geologischen Arbeiten auf Nowaja Semlja in den Jahren 1925-1927 [*Relatio de operibus geologicis circa* Novaja Zemlja, *A. 1925/1928*]. (Russ. Text, Dtsch. Rés.). 23 Abb., Trans. Inst. Mar. Fish. & Oceanogr., Geol. Works on Novaya Zemlya, 3-50. Leningrad (1935).

(—) Trudy Vses. Nautchno–Issl. Inst. Morsk. Rybn. Khoz. Okeanogr. (In Russ.) Trav. Inst. Rech.Scient. Pêches Marit. & Océanogr.), I, 3-49. Moskva-Léningrad (1935). **a - 686**

Die Untersuchungen umfassen den südlichen und westlichen Teil mit Fjorden und Inseln. Für jede untersuchte Region sind die verschiedenen Schichten an Hand Karten, graphisch-schematischer Skizzen und chemischer Analysen, angegeben und erläutert. Vergleich mit den Ergebnissen anderer Forscher. Störungen des symmetrischen Baues des südlichen Teiles und daraus gezogene Schlussfolgerungen.

**Kobayashi Teiichi** - Upper Cambrian of the Wuhutsui Basin, Liaotung, with special Reference to the Limit of the Chaumitian (or upper Cambrian) of Eastern Asia, and its Subdivision [*Stratum Cambrianum Superius in bacino* Wuhutsui. *Agitur particulatim de limite quoad stratum chaumitianum (seu cambrianum superius) Asiae orientalis eiusque partitione*]. 7 pls., 1 map, tabl. Jap. Journ. Geol. & Geogr., Trans., XI, 1, 2, 55-155. Tokyo (1933). **a - 687**

Geology of the Wuhutsui Basin. Upper Cambrian in the Taitzuho trough. Note on the Upper Cambrian of the Yokusen trough of South Korea. Correlation of the Upper Cambrian sections of Eastern Asia. The limits of the Upper Cambrian formations and their major correlations, with a discussion of the Ozarkian problem. Palaeontology.

**Koulik N.** - Travaux de la Section de Géologie de l'Institut Arctique de l'URSS en 1935 [*De operibus peractis a Sectione pro Geologia in Instituto Arctico ad URSS pertinente, A. 1935*]. (En russe). Bull. Arct. Inst., V, 9, 278-279. Leningrad (1935). **a - 688**

Bref résumé des recherches géologiques exécutées dans la zone occidentale de la Route Maritime du Nord, en particulier sur la Novaja Zemlja, Vajgatch, Tajmyr, et dans la zone orientale, à voire sur la péninsule de Tchoukhotsk, dans le delta du fleuve Léna et sur les Iles Novo-Sibirskijé, avec référence spéciale à l'ouvrage de D. V. Nalivkine sur « La faune silourienne et dévonienne de la Novaja Zemlja ».

**Kuenen Ph. K.** - Problemen in Ned. Indië in verband met het verschuiven van continenten [*Questiones quae pertinent ad motus terrarum continentium in Indiis Hollandesibus*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam LIII, 2, 300. Leiden (1936). **a - 689**

Kurzer Bericht über einen Vortrag von Kuenen gehalten an der Sitzung der Niederl. Geogr. Gesellschaft am 24. Januar 1935 in Groningen. Kritische Besprechung der Wegnerschen Theorie in Bezug auf die Entwicklung des Gebietes zwischen Asien und Australien.

**Lacroix A.** - Composition minéralogique des roches volcaniques de l'Ile de Pâques [*Compositio mineralogica saxorum vulcanicorum Insulae Paschae*]. C. R. Acad. Sc., CCII, 7, 527-530. Paris (1936). **a - 690**

Résultats de l'étude minéralogique que l'A. a entreprise sur la très ample collection pétrographique rapportée en France par une mission franco–belge après un séjour de plusieurs mois dans l'Ile de Pâques. Il rappelle tout particulièrement l'attention sur l'intérêt spécial qu'offre l'existence dans cette île des roches rhyolitiques, et singulièrement des obsidiennes, qui sont tout à fait exceptionnelles dans les îles volcaniques du Pacifique.

**Lacroix A.** - Composition chimique des laves de l'Ile de Pâques [*Compositio chemica quoad lavam vulcanicam Insulae Paschae*]. 2 tabl. C. R. Acad. Sc., CCII, 8, 601-605. Paris (1936). **a - 691**

L'A. complète l'étude minéralogique des laves de l'Ile de Pâques faites antérieurement (V.: C. R. CCII, 1936, p. 527) par leur étude chimique; il les compare ensuite aux laves des autres volcans du Pacifique austral et, étant donné leur caractère particulier, conclut que l'Ile de Pâques, avec l'île Tutuila, de l'archipel de Samoa, pour raient être dues à une modification endomorphe du magma effectuée aux détriments d'un substratum cristallin ancien immergé.

**Lacroix A.** - Les roches volcaniques de l'Ile Pitcairn (Océan Pacifique Austral) [*Saxa vulcanica in Insula* Pitcairn (*in Oceano Pacifico australi*)]. 1 tabl. C. R. Acad. Sc., CCII, 10, 788-791. Paris (1936). **a - 692**

Dans la présente Note l'A. complète ses observations sur les roches volcaniques de l'Océan Pacifique Austral, en faisant l'analyse des roches rapportées par M. Métraux de la mission franco-belge de l'Ile de Pâques, de la petite île Pitcairn, l'une des îles Gambier qui est entièrement volcanique et qui se distingue nettement de ces dernières, ainsi que des autres îles océaniques du Pacifique.

**Lapparent (de) A. F.** - La transgression nummulitique dans les Alpes de Provence [*De transgressione nummulitica in Alpibus Provincialibus*]. C. R. Acad. Sc., CC, 2, 157-159. Paris (1935). **a - 693**

L'étude de la faune des niveaux des calcaires à Nummulites entre La Penne et Briançonnet et des grès à végétaux et Nummulites, ont permis à l'A. de suivre avec une progression et une continuité particulièrement intéressantes la transgression nummulitique de la région susmentionnée. Il a pu ainsi déterminer que la mer lattorfienne s'arrêtait contre les crêtes émergées de Teillon, Destourbes, Pré-Chauvin. Le fait nouveau que, dans le synclinorium de l'Estéron, la mer s'est avancée vers le Sud en même temps que vers l'Ouest, amène l'A. à modifier partiellement, pour cette région, les reconstitutions paléogéographiques de J. Boussac (v.: « Etudes stratigraphiques sur le Nummulitique alpin », Mém. Carte Géol. de la France, 1912, pp. 95-98).

**Lees Everett J.** - Geology of the Laberge Area, Yukon [*De geologia in area* Laberge, Yukon]. 6 pls. Trans. R. Canad. Instit., XX, part I, 43, 1-48. Toronto (1934). **a - 694**

Physiography and glacial geology, structural and economic geology. Stratigraphy and petrography. Palaeontology.

**Lóczy L.** - Geologie van Nord Boengkoe en het Bongka Gebied tusschen de Golf van Tomini en de Golf van Tolo in Oost Celebes [*De geologia in* Boengkoe *septentrionali et in regione* Bongka, *inter sinum* Tomini *et sinum* Tolo, *in orientalibus insulis* Celebes]. Verh. Geol-Mijnb. Gen. Ned. e. Kol., Geol. Ser., X, 3, 219-322. ? (1935). **a - 695**

**Loupanova N. P.** - Geologico-Petrographical Work in the Region of Providence Bay [*Opus geologico-petrographicum in Sinu Providentiae*]. (In Russ. Engl. Summ.). 1 map, 2 photos. Bull. Arct. Inst., VI, 1, 19-23, 48-50. Leningrad (1936). **a - 696**

Results of a topographic survey made by the geological party at the Polar Station in the Providence Bay. The description of the rocks which form the area under investigation is given and their age determined. The geological collection gathered has been successfully treated *in situ*.

**Markov K. K.** - Histoire glaciaire tardive et post-glaciaire des environs de Léningrad sur le fond de l'histoire glaciaire tardive et post-glaciaire de la Baltique [*De tarda historia glaciali historiaque postglaciali terrenorum apud Leningradum relate ad historiam glacialem tardam historiamque postglacialem Maris Baltici*]. (En russe). Trudy Komm. Izutsch. Tchetv. Per. (Trav. Comm. Et. Quatern.) Ed. Acad. Sc., IV, 1, 5-70. Leningrad (1934). **a - 697**

**Markov K. K.** - La Mer yoldienne et le problème de la jonction de la Baltique et de la Mer Blanche dans la période tardi-glaciale (2ème article) [*Agitur de mari yoldiano deque coniunctione maris Baltici cum mari Albo aetate tardo-glaciali*]. (En russe). 1 carte. Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr.), LXVII, 1, 88-89. Moskva-Leningrad (1935). **a - 698**

Après avoir relevé que depuis l'apparition de son premier article sur le même sujet de nombreux travaux très importants et traitant le même problème de la jonction de la Mer Yoldienne à travers un détroit avec la Mer Blanche ont été publiés, l'A. examine les publications de A. Hellakoski, L. v. Post, A. Cleve Euler, M. Sauramo et S. A. Jakovlev, dont il compare les conclusions à celles, auxquelles il était précédemment arrivé. (V.: 1er Article: « Izv. Gheogr. Obstsch. », LXV, 4).

**Markov K. K. & Poretzkij V. S.** - Histoire post-glaciaire des environs de Léningrad [*De historia postglaciali terrenorum apud Leningradum*]. (En russe). 4 fig., Priroda, 5/6, 99-103. Leningrad (1933). **a - 699**

**Menchikoff N. & Monod Th.** - Coupe géologique de Hank à Taoudeni (Sahara occidental) [*Sectio geologica ab* Hank *ad* Taudeni (*in Sahara occid.*)]. C. R. Acad. Sc., CCII, 3, 230-232. Paris (1936). **a - 700**

Les A.A. ont pu établir, sur la base de leurs explorations, une coupe d'ensemble des terrains primaires, depuis leur base jusqu'au Carbonifère inférieur inclus, dans la région située entre Hank et Taoudeni, et donnent dans la note présente, une brève description de la faune des couches étudiées.

**Misch P.** - Der Bau der mittleren Südpyrenäen [*De structura Pyrenaeorum meridionalium*]. Beiträge zur Geologie der westl. Mediterrangebiete hrsg. v. H. Stille. 51 Abb., 6 Taf., vi + 168 S. Abhandl. Ges. Wiss. Göttingen, III. Folge, 12, Weidmannsche Buchhandl. Berlin (1934). **a - 701**

Die hier dargestellte Auffassung weicht wesentlich von der bisherigen (« Alpinen Orogen ») ab: Bildung des Geosynklinales, Wechsel der Bewegungsrichtung; verschiedene paläozoische Zonen mit besonderer Berücksichtigung der plastischen Salzmassen in der Trias.

**Munro Georg W.** - Power to move Continents [*Vis motoria terrarum continentium*] Science, LXXXII, 2134, 488-490. New York (1935). **a - 702**

Referring to the presidential address of the Brit. Ass. Adv. Sc., September 4, concerning the form, drift and rhythm of the continents A. here develops his theory about heat, i. e. dissolved gases exerting high pressure as the main factor of movement. The formations of the mid-Atlantic swell, the Pacific foredeeps and the Gulf of Mexico are considered.

**Nikoljskj A. P. & Volodenkov G. G.** - Short Preliminary Data on the Geological Structure of the Eastern Part of the Chukchee Peninsula (*Dati priores de structura geologica regionis orientalis paeninsulae* Chukchee]. (In Russ. Engl. Summ.). Bull. Arct. Inst., V, 12, 437–440, 465 Leningrad (1935). **a - 703**

Brief description of the region of Koliuchinsk, Mechigmensk and Lawrence Bays in the eastern part of the Chukchee Peninsula where a geological party sent out by the Arctic Institute of USSR was working in 1934. As a result of the investigation carried out a geological and topographical map of the area has been constructed on the scale 1 : 500 000. The geological ages of the formations observed have been determined.

**Obrutschew S. W.** - Geologie des Schubert Busens [*De geologia sinus* Schubert]. (Russ. Text. Dtsch. Rés.). Geol. works on Novaya Zemlya, Trans. Inst. Mar. Fish. & Oceanogr., I. 58–66. Leningrad (1935). **a - 704**

Ergebnisse der während der 14. Expedition des Staatl. Ozeanogr. Instituts gemachten Untersuchungen. Topographische Aufnahme des Busens. Geologischer Bau der Küstengegend und des Tales des Schubertflusses.

**Panov D. G.** - Quelques données sur la géologie des montagnes Lütke et Lozhkina dans la baie Serebrjanka (Novaja Zemlja) [*De geologia montium* Lütke *et* Loshkina *in* Serebrjanka (*in* Novaja Zemlja) *sinu*]. (En russe). 7 fig. Izv. Gos. Geograph. Obtsch., LXVI, 5, 707–715. Leningrad (1934). **a - 705**

**Panov D. G.** - Contribution à la géologie de la presqu'île de l'Amirauté (Novaja Zemlja) [*Contributio in geologiam paeninsulae* de l'Amirauté (*in* Novaja Zemlja)]. (En russe). Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr.), LXVII, 1, 130–131. Moskva–Leningrad (1935). **a - 706**

Quelques informations sur la géologie de la rive méridionale de la presqu'île de l'Amirauté dans la région de la baie Sosnovskij, basées sur les observations faites au cours de l'arrêt du vapeur « Jamal » dans cette baie en été 1931.

**Polkanov A. A.** - Formation hyperborique de la péninsule Rybatchij et de l'île Kiljdine (Péninsule de Kola) [*Agitur de formatione hyperborica in paeninsula* Rybatchij *et insula* Kiljdine]. (En russe). 2 cartes. Probl. Sov. Géol., II, 6, 201-220. (Suppl. id. IV, 10, 165). Moskva-Leningrad (1934). **a - 707**

**Rabkin M.** - A Short Preliminary Report of the Lavrentij Geological Research Party of the Eastern Chukhotsk Expedition of the Arctic Institute [*Relatio prior de operibus peractis a cohorte pro investigationibus geologicis, in* Baja Lavrentjevskaja]. (In Russ. & Engl.). 2 fig. Bull. Arct. Inst., V, 11, 387–389, 417–419. Leningrad (1935). **a - 708**

Brief account of the work of the party, whose scope has been the geological and topographic survey of the area lying along the Lavrentij Gulf, the coast of the Bering Strait and the Polar Ocean as far as Cape Ginretlen.

**Rueger L.** - Die baltischen Länder [*Regiones Balticae*]. 14 Abb., 1 Taf., Handb. Region. Geol. hrsg. v. Prof. O. Wilckens, IV, 4 Abt., C. Winter. Heidelberg (1934). **a - 709**

Entwicklung der verschiedenen geologischen Perioden mit besonderer Berücksichtigung der Gliederung von Kambrium, Silur und Devon. Dem Abschnitt über das Diluvium liegen wichtige Spezialarbeiten von Hausen, Kraus u. a. zu Grunde.

**Sandegren R.** - Om den postglaciala havstransgressionen vid Sydsveriges kuster [*De transgressione post–glaciali ad litora meridionalia Suetiae*]. Geol. Fören. Förh. 628-631. Stockholm (1934). **a - 710**

**Sauramo M.** - Zur spätquartären Geschichte der Ostsee. Vorl. Mitt. [*De historia quaternaria inferiore Maris Baltici. Communicatio prior*]. 4 Taf. Bull. Comm. géol. Finl. 104, 28-87. Helsinki (1934). **a - 711**

**Saurin E.** - Sur la constitution géologique de la province du Phu–Yên (Sud-Annam) [*De constitutione geologica provinciae* Phu-Yên]. C. R. Acad. Sc., CCII, 5, 431-433. Paris (1935). **a - 712**

Brève description de la constitution géologique de la province située en bordure de la côte d'Annam entre le Cap Varella au Sud et le Col de Cu-Mong au Nord.

**Schuchert Ch.** - Historical Geology of the Antillean-Caribbean Region [*De geologia historica Antillarum*]. xxvi + 811 pp., 16 pls., 107 figs. John Wiley & Sons, Inc. New York (1935). **a - 713**

This work forms the first part of a proposed three-volume treatise dealing with the stratigraphy and historical geology of Mexico, Central America, the Antillean Islands, the Northern South America as well as the Gulf Coastal States of America, being the result of twenty-five years' work on paleographic maps (See rev. in Science 2143, 81-83).

**Shimizu S.** - Kin-Emon Ozaki and Tahadiro Obata. Gotlandian Deposits of Northwest Korea [*Agitur de* Kin-Emona Ozaki *et* Tahadiro Obata, *depositis gotlandianis in* Korea *nordorientali*]. 10 pls., 1 map. o. t. Journ. Shangai Sc. Inst. Sect. II, v. I, Separ. Print. 8, 59-88. Shanghai (1934). **a - 714**

**Simpson G. G.** - Early and Middle Tertiary Geology of the Gaiman Region, Chubut, Argentina [*De geologia aetatis tertiariae superioris et mediae in regionibus* Gaiman, Chubut, Argentina]. 13 figs., Amer. Mus. Novit., 775, 1-29, Amer. Mus. Nat. Hist., New York, Publ. Scarritt Exped., n. 23 (1935). **a - 715**

Author emphasizes the importance of the Gaiman region, situated approximately in lat. 43°16′ S., long. 65°28′ W., on the north (left) bank of the Rio Chubut, Argentina, from the geological point of view and gives a summary of previous research in this region. The Scarritt Expeditions have also carried out some investigations in the exposures of Gaiman collecting fossils at different levels and measuring several detailed geological sections. The results he obtained are so different from what was anticipated and cast so much new light on all the problems concerned with the relationships of the marine Salamanca to the terrestrial Casamayor Formation, the position and nature of the Cretaceous-Tertiary contact, the beginnings of Andian orogeny, the relation of the terrestrial Colhué-Huapi to the marine Patagonian Formation, and the ages of these various formations, that it seemed necessary to publish them in the present report.

**Smith W. A.** - Fossils as Indicators of Continental Drift [*De fossilibus ac indicibus motus continentium*]. Nature, CXXX, 5, 3422, 900–901. London (1935). **a - 716**

Extended account of a contribution to the discussion on Wegener's hypothesis of continental drift at the meeting of the Geological Society of London on January 23, 1935.

Some examples of fossils showing the possibility and non-possibility of the Wegener theory. Necessity of distinguishing between identical forms and parallel developments from common ancestors before drawing conclusions as to former land connexions. (See also addendum Nature, 3426, p. 1074).

**Stecher E.** - Paläovulkanische Bomben [*De globis palaeovulcanicis*]. 11 Taf. In Komm. bei Max Weg. Leipzig (1935 ?). **a - 717**

Die hier beschriebenen, in der Nähe von Chemnitz vorbefindlichen, Porphyrkugeln stammen wahrscheinlich aus den aus der Tiefe des paläozoischen Meeres hervorwellenden vulkanischen Lavamassen her. Vergleich mit anderen ähnlichen Funden.

**Stetson H. C.** - Bed-Rock from the Continental Margin on Georges Bank [*De rupibus sedimentariis a margine continentali provenientibus regionis* Georges Bank]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16 Ann. Meet., Apr. 25-26, 1935, I, 226-228. Washington D. C. (1935). **a - 718**

(Contr. n° 76 from the Woods Hole Oceanogr. Instit.). After a brief account of the results of numerous closely-spaced soundings carried on by the U. S. Coast and Geodetic Survey for the recharting of Georges Bank; a short summary is given of the work performed on the « Atlantis » sent in August 1934 by the Woods Hole Oceanographic Institution for a dredging trip to three of the newly charted canyons cutting the southern edge of Georges Bank between 67°38′ and 68°11′ west longitude.

**Størmer L.** - Contribution to the Geology of the Southern Part of the Oslofjord [*Contributio in geologiam regionis meridionalis* Oslofjord]. 12 figs., 5 pls. o. t., 1 map. Norsk Geol. Tidsskr. XV, 43-113. Oslo (1935). **a - 719**

Previous research and conceptions of the rhombporphyry conglomerate. Description of localities. General description and discussion. Tectonics. Remarks on glacial features in the southern part of the Oslofjord. The submarine barrier at the mouth of the fjord is shown on a map.

**Suzuki J.** - Geology of Okujiri Islands [*De geologia insularum* Okujiri]. Journ. of Geogr. XLVII, 562. Tokyo (1935). **a - 720**

**Termer F.** - Reise nach den östlichen Kanaren (Fuerteventura und Lanzarote) [*Navigatio ad insulas Canarias orientales* Fuerteventura *et* Lanzarote]. 1 Karte. Naturwiss. XXIII, 42, 722-724. Berlin (1935). **a - 721**

Allgemeine Geomorphologie und Geologie; Vulkane; Bewohner.

**Tyrrel G. W.** - New Longitude Determinations in Greenland und Jan Mayen in Relation to Continent Drift [*Longitudinis determinationes novae in Groenlandia et insula* Jan Mayen *relate ad continentium terrarum declinationem*]. Geogr. Rev., XXV, 3, 504-505. New York (1935). **a - 722**

Brief account of the crucial test of the Wegener hypothesis of drifting continents, consisting in the comparison of longitude measurements at any place over a rather long period, which has been already made on Sabine Island, East Greenland, and on Jan Mayen, establishing a real difference of longitude.

**Verejskij N.** - A propos des manuscrits de travaux géologiques et géomorphologiques conservés aux archives de la Société Russe de Géographie [*De manuscriptis geologicis et geomorphologicis in archivis servatis Societatis geographicae Russicae*]. (En russe). Izv. Gos. Ghéogr. Obstsch. (Bull. Soc. Géogr. Etat); LXVII, 5, 611-624. Leningrad (1935). **a - 723**

Reproduction abrégée d'une partie des manuscrits conservés aux archives de la Société Russe de Géographie, parmi lesquels nous citerons: V. A. Roussanov: Glaciers fossiles et houille sur la Novaja Zemlja en rapport avec la structure géologique de l'île, I. D. Tcherskij: Liste de la collection réunie au Bajkal, K. Tikhonravov: Sur les fossiles que l'on trouve le long des rivières Kolotchka et Kolokcha, B. V. Sabanine: Exécution des recherches géologiques et hydrologiques dans la région et la ville de Mourmansk.

**Watts W. W.** - Form, Drift and Rhythm of the Continents [*Agitur de forma, declinatione et rhythmo terrarum continentium*]. Science, LXXXII, 2123, 203-213. New York (1935).

(—) See also Nature Suppl. CXXXVI, 3436, 369-380. London (1935). **a - 724**

Presidential address of the British Association for the Advancement of Science, Norwich, September 4. Recapitulation and discussion of existing theories: Lyell, Hutton, Suess, Kelvin, Huxley, Rutherford, Rayleigh, Joly, Holmes, Du Toit, Wegener, Bailey, Gregory, De la Beche. Importance of their work for the present standpoint. Comparison of the structures of the Pacific and Atlantic oceans. Glacial movements and following changes. Evolution of life.

**Wilson G. W., Edvards W., Knox J., Jones R. C. B., Stephens J. V., Watson D. M. S., Lang W. H. & Flett S. J.** - The Geology of the Orkneys [*De geologia insularum* Orkney]. 8 pls., 1 map on pl., 36 figs., 205 pp. Geol. Survey Mem. Scotl. Edinburgh (1935). **a - 725**

The first four chapters deal with the geological expeditions undertaken during 1927-1929, the topography and the geology of the archipelago. The following chapters give a detailed description of the principal islands, and information on fishes, fossil plants and the petrography of the whole archipelago.

**Zuffardi-Comerci R.** I depositi marini pliocenici subalpini del Piemonte considerati in rapporto ai movimenti epirogenetici postpliocenici [*De depositis marinis pliocenicis subalpinis Pedemontanis consideratis pro motibus epirogeneticis postpliocenicis*]. Atti R. Acc. Sc. di Torino, Cl. Sc. Fis., Mat. e Nat., v. LXX, tomo I, disp. III, 447-461. Torino (1934–35). **a - 726**

Riconoscimento di tre regioni subalpine: due estreme che presentano numerosi affioramenti di Pliocene marino ed una intermedia, fra le valli dell'Orco e della Stura di Cuneo, che ne è priva. La prima delle due presenta fatti particolarmente interessanti, per lo scopo cui tende l'A., nei dintorni di Gozzano, allo sbocco di Valsesia e nel bacino d'Ivrea; la seconda per l'estensione che il Pliocene marino presenta nel primo subappennino e nei confronti con gli spostamenti nell'opposta Riviera ligure occidentale.

**An.** - Continental Drift [*Declinatio terrarum continentium*]. Science Suppl., LXXXI, 2109, 6. New York (1935). **a - 727**

Short note on a report presented by C. C. Smith on the meeting of the R. Society of Canada, concerning the Wegener theory.

## Litora et orae maritimae - Erosiones.

**Albani D.** - Variazioni di spiaggia e fenomeni bradisismici in Italia [*De orarum variationibus phaenomenisque bradisysmicis in Italia*]. Atti Soc. Ital. Progr. Sc. (XXIII Riun., Napoli, ott. 1934), II, 591-599. Roma (1935). **a - 728**

Si riscontra una certa concordanza tra variazioni di spiaggia e lente variazioni di livello tra la terraferma e il mare: per cui a movimenti di sommersione di coste rocciose corrisponderebbero ritiri nelle linee delle spiaggie che ad esse si appoggiano, mentre avanzamenti di spiaggia si verificherebbero là dove lenti movimenti di emersione sarebbero in atto. Il fenomeno di ritiro, che si manifesta oggi nella maggior parte delle spiaggie italiane, potrebbe essere posto in relazione a lenti movimenti di sommersione riscontrati su molti tratti di coste alte, i quali potrebbero insieme con altri importantissimi agenti naturali ed artificiali, determinare, o quanto meno gravare, il fenomeno di ritiro suddetto [A.].

**Behrmann W.** - Geographische Charakterbilder. 5. Kliffe und Rutschungen an der Südküste Englands [*De peculiaribus geographicis picturis. 5. De differentibus formationibus geologicis Angliae*]. 6 Abb. Nat. u. Volk LXV, 9, 465-470. Frankfurt a. M. (1935). **a - 729**

Diese junge (postglaziale) Küstenbildung befindet sich noch heute im schnellen Zurückweichen und bietet dabei ein grosses Formenreichtum dar, von denen mehrere hier in sehr gut gelungenen Bildern wiedergegeben werden.

**Blanc A. C.** - Le dune fossili di Castiglioncello e la regressione marina post-tirreniana [*De arenosis cumulis fossilibus in* Castiglioncello *deque regressione orae maritimae post-thyrrenicae*]. Riv. Geogr. Ital., I-III, 1-54. Firenze (1935). **a - 730**

Vengono, fra l'altro, esaminate le variazioni di linea di costa prodottesi su quella costiera dal Tirreniano in poi, e ne viene tratteggiata la correlazione con movimenti analoghi, riscontrati sulle coste del medio ed alto Tirreno [A.].

**Bourcart J.** - Le Quaternaire marin dans le golfe de Cadix [*De aetate quaternaria marina in Sinu Gaditano*]. C. R. Acad. Sc., CCI, 27, 1493-1495. Paris (1935). **a - 731**

L'A. a réussi à suivre, depuis l'embouchure de l'Oued Dra jusqu'au Cap Spartel, le littoral quaternaire de l'Océan Atlantique et à constater que cette partie de l'Atlantique n'est que la moitié d'un grand golfe dont la côte nord va de l'Isla de las Palomas (Tarifa) au Cap Saint Vincent. Il a, par conséquent, cherché à voir si les formations caractéristiques du Quaternaire marocain s'y continuent et a pu établir que le littoral chelléen du Maroc se poursuit le long de la côte nord du golfe de Cadix, mais qu'il y est entièrement sous-marin.

**Bourcart J.** - Remarques sur les dépôts quaternaires du littoral portugais entre le Cap d'Espichel et la presqu'île de Feniche [*Observationes circa deposita quaternaria litorum Lusitanorum inter Promunturium* d'Espichel *et paeninsulam* Peniche]. C. R. Acad. Sc., CCII, 12, 1079-1081. Paris (1936). **a - 732**

Dans une Note antérieure (V.: C. R., CCII, p. 856, 1936) l'A. avait montré qu'il était très probable qu'aucun document n'existât pour retracer l'histoire quaternaire du littoral portugais entre le Cap Saint Vincent et l'estuaire actuel du Sado; dans la présente Note, par contre, il démontre qu'il n'en est pas de même sur la rive droite de ce fleuve que forme la Serra calcaire de l'Arrabida. Ses observations montrent qu'en ce point un fragment du littoral chelléen est conservé, mais qu'il représente le bord d'un chenal séparant Peniche (et les Berlenguas) du continent; sur la base de l'examen de la faune il met en évidence l'existence d'une zone de surélévation littorale à l'extrémité de l'Arrabida d'une part et à Nazare, de l'autre part.

**Bourcart J.** - Sur l'évolution du littoral de la Péninsule Ibérique de la presqu'île de Peniche (Portugal) au cap Finistère (Galice espagnole) [*De evolutione litorum paeninsulae hibericae a paeninsula* Peniche (*in Lusitania*) *ad* Finistère (*in Galitia hispanica*). C. R. Acad. Sc., CCII, 17, 1448-1450. Paris (1936). **a - 733**

L'A. avait établi (v. « C. R. Acad. Sc. », CCI, 1935, p. 1493, CCII, 1936, p. 1079) que les dépôts quaternaires le long de l'Atlantique sont les mêmes de l'Anti-Atlas marocain à Peniche au Portugal. Dans la présente note il communique les résultats de l'étude du littoral au nord de Peniche qui le conduit à des résultats analogues, mais cette fois, les faits stratigraphiques étant peu nombreux, il fait surtout appel aux résultats de l'analyse morphologique.

**Castaldi F.** - Forme di erosione alveolare nei tufi della penisola sorrentina [*De erosione alveolari in tuphis paeninsulae Surrentinae*]. Nota III. Atti Soc. Ital. Progr. Sc. (XXIII Riun., Napoli, 13-17, ott. 1934), II, 608–615. Roma (1935). **a - 734**

Richiamati alcuni suoi studii precedenti, l'A. riporta caratteristici esempi di sculture alveolari da lui notate sulle pareti tufacee tra Meta e Piana di Sorrento. Tali forme di erosione appaiono a oltre 50 metri sul mare ed hanno dimensioni variabilissime. Sembra all'A. che la causa debba essere l'azione meccanica del vento e a tal proposito l'A. ha elaborato i dati dell'Osservatorio metereologico dei Frati Bigi della Carità a Massalubrense e ha stabilito che i venti predominanti sono quelli provenienti dal mare.

**Cisneros (de) J.** - La existencia de antiguas playas en la provincia de Alicante [*De veteribus oris maritimis Lucentiae*]. An. Asoc. Españ. Progr. Ciencias, II, 2, Madrid (1935). **a - 735**

**D'Arrigo A.** - Ricerche sul regime dei litorali del Mediterraneo [*Investigationes in litorum regimen Maris Mediterranei*]. Num. ill., 8 tav., f. t. viii + 172 pp. Consiglio Naz. delle Ric., Comitato per la Geografia, Comitato per l'Ingegneria. Stabil. Tip. Aternum. Roma (1936). **a - 736**

**Faura M. & Ferrán P.** - Experiéncies sobre l'avancament del delta del Llobregat [*De progressione in delta fluminis* Llobregat]. 3 fig., Arx. Esc. Sup. de Agricoltura, 2, 150-157. Barcelona (1935). **a - 737**

Continuación de otro articulo publicado el año 1920 por el Dr. Faura en unión del Sr. Vilaseca.

**Goldtwait R. P.** - The Damariscotta Shell Heaps and Coastal Stability [*De concharum cumulis in* Damariscotta *deque stabilitate litorea*]. 3 figs., 3 tables. Amer. Journ. Sc., XXX, 175, 1-13. New Haven, Conn. (1935). **a - 738**

Description of the shell heaps of Damariscotta River which represents a tidal estuary. These heaps are unique among hundreds of similar Indian shell heaps on the coast of Maine and are built exclusively of oyster shells and in more protected coves extend down to the very edge of the salt marsh. A. reports soundings made to determine the area occupied by the old oyster beds and discusses the antiquity of the heaps and the relation of sea level to location of heaps. Some conclusions concerned with the widespread coastal submergence, previous to the recent stability, are drawn.

**Gorbatzky G. W.** - On the Character of the Shore–Line of the District of Cape Desire [*De peculiaritatibus quoad lineam litoream ad promunturium* Desire *pertinentem*]. (In Russ., Engl. Summ.). 1 chart. Arctica, II, 65-71. Leningrad (1934). **a - 739**

Brief account of an instrumental survey on the scale 1/100 000 and a geologic-geomorphological work carried out at the north extremity of Novaya Zemlya, between Cape Desire (Hoek der begeerte) and Krassivaya Bay.

**Goussev A.** - Exploration géologique sur le Cap Bykovoj [*Exploratio geologica promunturii* Bykovoj]. (En russe). Bull. Arct. Inst., VI, 1, 23-24. Leningrad (1936). **a - 740**

Résultats d'observations faites sur le cap qui montrent clairement que la terre ferme dans cette région a subi plusieurs fois des déplacements verticaux ce qui est aussi confirmé par la présence de glace fossile dans le terrain au-dessous du niveau actuel de la mer.

**Häntzschel W.** - Erhaltungsfähige Schleifspuren von Gischt am Nordseestrand [*De vestigiis ut rimis in arena litorea maris Nordici, a maris spuma formatis*]. 4 Abb. Nat. u. Volk LXV, 9, 461-465. Frankfurt a. M. (1935). **a - 741**

Kurzer Bericht über die vom Vf. am 24. Mai 1935 am Nordseestrand bei Wilhelmshaven beobachteten Gischtmassen, die vom Winde über die flache Sandbank hinweg getrieben wurden und dabei Schleifspuren bildeten.

**Holtedahl O.** - Den norske landmasses begrensning mot havet [*De limite massae continentalis Norvegicae*]. (Engl. rés.). 1 map, 2 figs. Norsk. Geogr. Tidsskr. V, h. 8, 4, 453-466. Oslo (1935). **a - 742**

A detailed study of the submarine lines from North to South of the Norwegian coast: depths, character, origine, epoch and theory of formation.

**Holtedahl O.** - A new Example of a Submarine Fault Line along a Continental Border [*Exemplar novum submarinae cuiusdam lineae fractae* *praeter marginem quemdam continentalem*]. 1 map, Kgl. Norsk. Vidensk. Selsk. Forh., 1935, VIII, 27, 91-93. Trondheim (1936). **a - 743**

On the discovery of a line of fracture similar to that in the submarine topography of many parts of the Norwegian shelf (Eine unterseeische Dislokations-Linie ausserhalb der norwegischen Küste 1933) along the west coast of Greenland.

**Krejci-Graf K.** - Beobachtungen am Tropenstrand [*Observationes circa litora tropicalia*]. 13 Abb, Senckenbergiana, XVII, 1/2, 21-61. Frankfurt a. M. (1935). **a - 744**

I. Bauten und Fährten von Krabben. II. Fährten und Spuren von Schnecken. III. Lebensgemeinschaften und Totengesellschaften. IV. Art und Form der Strandablagerungen. Die Beispiele stammen aus den Umgebungen von Hongkong, Swatau und Hawaii.

**Lupanova N. P.** - Geological and Petrographical Observations on the Murman Coast in the Region of Gavrilovo-Zakhrebetnaja Village in 1933 [*Observationes petrographicae et geologicae circa litora regionis* Murman *praecipue in vicis* Gavrilovo-Zakhrebetnaja, *A. 1933*]. (In Russ. Engl. Summ.). 18 figs., 65 tables, 1 map, 5 pls. o. t. Trans. Arct. Inst., XV, 39-118. Leningrad (1935). **a - 745**

Results of geological and petrographical investigations carried out in a small part of the eastern Murman coast between the River Voronia and the Scherbinikha Gulf. Descriptions of the samples of rock collected.

**Milojevič B. Ž.** - Littoral et îles dinariques dans le Royaume de Yougoslavie [*De litoribus atque insulis dinaricis in* Yougoslavia]. 56 fig., croquis, diagr., phot. en 12 pl., viii + 226, 2 vol. Impr. Nationale du Royaume de Yougoslavie. Beograd (1933). **a - 746**

**Neustadt M.** - Les affleurements de tourbes sur la côte occidentale du Kamtchatka [*De torba in litoribus occidentalibus regionis* Kamtschatka]. (En russe). 9 fig., 1 tabl. Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr. Etat), LXVII, 5, 579-587. Leningrad (1935). **a - 747**

Description des différents types d'affleurement naturels de tourbe que l'on observe sur la côte occidental du Kamtchatka, à voire: les affleurements le long de la côte, où la tourbe touche directement le littoral, les affleurements du même type du précédent, se distinguant seulement par une couche de gallets, qui recouvrent la tourbe, les affleurements qui se trouvent sur des pentes à 5-30 mètres au-dessus du niveau de la mer, les affleurements le long des rivages des fleuves et rivières, dénudés et recouverts de gallets. Ces cinq types d'affleurements sont décrits séparément dans le présent ouvrage.

**Noe-Nygaard A.** - Stratigraphical Outlines of the Area round Fleming Inlet (East Greenland) [*Descriptio stratigraphica sectoris circa aestuarium fluminis* Fleming]. 88 pp., 2 pls., 21 figs. Medd. Grönl. CIII, 1. København (1934). **a - 748**

Geology and stratigraphy of the region about Fleming Inlet; geological evolution of the area; orogenic events which occurred in the area during its evolution.

**Pavlov S. G.** - Importance pratique des gisements de tourbe pour le littoral nord de la péninsule de Tchoukhotsk et du cours inférieur du fleuve Kolyma [*Momentum depositorum torba abundantium in litoribus nordicis paeninsulae* Tschoukhotsk *atque etiam in inferiore parte fluminis* Kolyma]. (En russe). 1 carte. Bull. Arct. Inst., VI, 1, 8-9. Leningrad (1936). **a - 749**

**Peacock M. A.** - Fiord-Land of British Columbia [*De fiordis Columbiae Britannicae*]. Bull. Geol. Soc. Amer. XLVI, 633-696. Rochester, N. Y. (1935). **a - 750**

Description of the geomorphic development of the general features of the coast of British Columbia, considered as a single unit. The author discusses the different factors which have influenced the physical development of the coast line, i. e. the combination of earth movements, stream erosion, and glacial excavation. The study represents an interesting example of the combination of the tectonic and glacial theories in explaining the origin of fiords.

**Shepard F. P.** - Gravel Cusps on the California Coast related to Tides [*De massis triangularibus* (*anglicae «cusps» latine «cuspides»*) *a saxulis formatis in litoribus californiensibus earumque correlatione cum aestibus maris*]. 1 fig., Science LXXXII, 2124, 251-253. New York (1935). **a - 751**

Some information on this phenomenon based on the A:s observations on the beach at the mouth of Santa Monica Canyon during the winter of 1933-34. Graph illustrating the relation between the area of cusps and the tidal range and wave size at the same times. Claim for more observations.

**Stetson H. C. & Schalk M.** - Marine Erosion of Glacial Deposits in Massachusetts Bay [*De erosione marina depositorum glacialium in baja* Massachusetts]. Sed. Petrol. April, 40–51. Tulsa, Okla (1935). **a - 752**

**Toniolo A.** - Ricerche sulle variazioni dei litorali sabbiosi dell'Italia e del Mediterraneo [*Investigationes in variationes litorum arena abundantium Italiae et maris Mediterranei*]. Atti Soc. Ital. Progr. Sc. (XXIII Riun. Napoli, 11-17 ottobre 1934), II, 599–605. Roma (1935). **a - 753**

Introduzione alla discussione generale di sezione. Ricerche d'indole geografica rivolte a determinare eventuali modificazioni subite dai litorali sabbiosi dalla metà del secolo XIX ad oggi. Indagini di indole geomorfologica che studiano il regime e il meccanismo di tali variazioni, l'andamento e le modificazioni delle isobate presso la linea di spiaggia, soprattutto intorno ai delta, in relazione alla morfologia dei bassifondi e alla natura dei sedimenti subacquei.

**Ulrich K.** - Die Morphologie des Roten Kliffs auf Sylt [*De morphologia scopuli rubri* (*ut dicitur*) *in insula* Sylt]. 1 Taf., 11 Abb., 26 S. Aus d. Arch. Dtsch. Seew., LVI. 1. Hamburg (1936). **a - 754**

Einleitung: Gestalt und Lage der Insel Sylt. Beschreibung des bearbeiteten Gebiets. Geologie und Petrographie. Die morphologisch wirksamen klimatischen Faktoren. Die Gezeitenverhältnisse bei Sylt. Der morphologische Zustand des Kliffs am Anfang der Beobachtungszeit. Die aus den Beobachtungen abgeleiteten morphologischen Erkenntnisse. Der Kliffabbruch nach den Vermessungen des Wasserbauamtes Husum. Der Küstenschutz.

**Volpe F.** - La Grotta della Regina (Studio della costa di Torre Pelosa) [*De spelunca quae dicitur* della Regina]. 9 fig., Universo, XVII, 8, 587-593. Firenze (1936). **a - 755**

**Wooldridge S. W.** - Erosion Surfaces [*Superficies per erosionem formatae*]. Nature, CXXXVI, 3449, 897-898. London (1935). **a - 756**

Account of a symposium held at the meeting of the British Association at Norwich, September 9, 1935. Discussion of the « Denudation Chronology » concerning the regions of south-east England, Devon and Somerset, South Wales, Southern Ireland, the East Midlands, Yorkshire and Channel Islands. Necessity of forming a general scheme of denudation chronology, the study of erosion surfaces being of interest also for the study of soil and land-utilisation.

**Zander R.** - Die rezenten Aenderungen der Mecklenburgischen Küste [*De recentibus variationibus litorum Mecklenburgensium*]. Mitteil. Geogr. Ges. Rostock, Beih. I. Rostock (1934). **a - 757**

**Service Hydrographique de la Marine** - Recherches hydrographiques sur le régime des côtes. XXIVème Cahier [*Investigationes hydrographicae in litorum regimen. Fasc. XXIV*]. 291 pp., Nombr. pl. Serv. Hydrogr. Marine, Publ. n. 13-624. Impr. Nat. Paris (1935). **a - 758**

**An.** - The Harvard Dredging Expedition along the Atlantic Coast [*Expeditio ab Universitate Harvardensi suscepta praeter litora Atlantica ad vada everriculo purganda*]. Science, LXXXII, 2114, 5-6. New York (1935). **a - 759**

Some information on this expedition on Georges Bank to be continued in the Hudson River submarine channel and in the submarine valleys off the Maryland coast. Important discoveries of deep coast valleys and fossils.

**An.** - Coastal Erosion [*De litorum erosione*]. Science Suppl., LXXXII, 2115, 7-8. New York (1935). **a - 760**

Some hints on the program of the meeting of the American Shore and Beach Preservation at Ocean City, N. J. on July 11-13, 1935.

## Sedimenta.

**Arland H.** - Le Turonien des environs de Cassis et les mouvements crétacés en Province Occidentale [*De aetate Turoniana in regione* Cassis *deque motibus cretaceis in Provincia Occidentali*]. C. R. Acad. Sc. CC., 24, 2029–2031. Paris (1935). **a - 761**

Le Turonien des environs de Cassis offre des possibilités spéciales pour étudier les passages de formations calcaréo-marneuses néritiques à des formations détritiques littorales. Le point principal, la coupe d'Oullier est caractérisée par l'instabilité du fond marin dont les phases de mouvement sont décrits ici. Enumération des fossiles.

**Baeckeroot G.** - Sur la présence de dépôts transgressifs pliocènes sur la Haute-Ardenne [*De depositis transgressivis pliocenicis in* Haute-Ardenne]. C. R. Acad. Sc., CCII, 6, 499-501. Paris (1936). **a - 762**

Courte description des dépôts de galets d'oolithe silicifiés, découverts dans la carrière Fagnoux-Dupont, de Cockaifagne, à l'altitude de 480 m., dont résulte nettement le caractère marin et transgressif de ces dépôts qui appartiennent à un seul et même cycle de sédimentation qu'il semble légitime de dater du Pliocène.

**Correns C. W.** - Die Sedimente des äquatorialen Atlantischen Ozeans. Lief. 1 A: Die Verfahren der Gewinnung und Untersuchung der Sedimente [*De sedimentis Oceani Atlantici Aequatorialis. Fasc. Ius A. Quomodo sedimenta obtinentur atque examinantur*]. Wiss. Ergebn. Dtsch. Atlant. Exped. Meteor. 1925–27. III, 3. Teil., Lief. 1. Walter de Gruyter & Co. Berlin & Leipzig (1933-1935). **a - 763**

**Dementjev V.** - Contribution à l'histoire du relief des versants occidentaux du Paj-Khoj durant le Quaternaire [*Contributio in studendas conformationes regionum occidentalium* Paj-Khoj *aetate quaternaria*]. 9 fig., 1 pl. h. t. Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr. Etat), LXVII, 6, 737-751. Leningrad-Moskva (1935). **a - 764**

Tentative d'illustration de quelques problèmes liés à l'histoire du relief des versants Ouest du Paj-Khoj et du littoral adjacent de la Baie Khajpoudyrskaja, entre le détroit Jougorskij Char au Nord et le fleuve Khej-Jaga au Sud.

Le caractère marin des sédiments étudiés est confirmé par la présence des algues *Diatomeae* et *Silicoflagellatae*, représentées par leurs formes marines exclusivement. Sur la base des résultats de ses observations l'A. essaie de tracer l'histoire de la formation de la région considérée.

**Emelianof G.** - Sur les bauxites de la Lika (Yougoslavie) [*De bauxite regionis* Lika (*in Yougoslavia*)]. C. R. Acad. Sc., CCII, 26, 1405-1407. Paris (1935). **a - 765**

L'objet de cette note est de préciser l'âge des bauxites à diaspore de la Lika, en Yougoslavie, dans lesquels la présence d'une brèche ferrugineuse, chargée de pisolite de la bauxite, comme toit, indique nettement une période d'émersion, après laquelle la mer serait de nouveau retournée et le rétablissement des anciennes conditions de sédimentation aurait eu lieu.

**Gratcheva O. S.** - Brève description pétrographique des roches sédimentaires de la Novaja Zemlja [*Descriptio brevior petrographica rupium sedimentis formatarum in* Novaja Zemlja]. (En russe). Trudý Vses. Naoutchno-Issl. Inst. Morsk. Rybn. Khoz. Okeanogr. (Trav. Inst. Rech. Scient. Pêches Marit. Océanogr.), I, 67-78. Leningrad-Moskva (1935). **a - 766**

**Häntzschel W.** - Rezente Eiskristalle in meerischen Sedimenten und fossile Eiskristall-Spuren [*De cristallis recentibus in sedimentis marinis deque cristallis glaciatis fossilibus*]. 12 Abb. Senckenbergiana XVII, 3/4, 151-167. Frankfurt a. M. (1935). **a - 767**

I. Beobachtete Formen meerischer Eiskristalle, ihre Bildungsbedingungen und Erhaltungsmöglichkeit. II. Die paläogeographische Bedeutung von Eiskristall-Spuren in meerischen Sedimenten. III. Bisher beschriebene fossile Eiskristall-Spuren und ähnliche Problematika und ihre Deutung: Die nordamerikanischen Formen, Eiskristall-Spuren aus dem badischen Wellenkalk, *Baieropsis ? verrucana* Fucini.

**Kindle E. M.** - Observations on Chance Experiments in Consolidation of Sediments [*Observationes ex experientiis causalibus deductae quoad sedimentorum consolidationem*]. 2 fig. Amer. Journ. Sc., XXX, 180, 537-540. New Haven, Conn (1935). **a - 768**

This paper records two examples of incrusting conglomerate developed in one case under sea-bottom conditions on the surface of an old cannon, and in the other on a stove lid of a lake bottom. The occurrence within

and on a steam pipe, discovered in shallow sea bottom dredging, of oolitic limestone in association with amorphous calcareous sediment is described as evidence that the formation of oolitic limestone is in some localities now developing on the sea bottom near the Florida coast.

**Krejci-Graf K.** - Die Entstehung des Erdöls [*De origine petrolei*]. 1 Abb. Naturwiss. XXIII, 35, 599-605. Berlin (1935). **a - 769**

Das Erdöl bildet sich aus den organischen Substanzen mariner Sapropelite. Die organische Substanz reichert sich zusammen mit dem feinen Korn an, d. h. in ruhigem Wasser, also in Buchten, engen Meeresstrassen, aber auch in Tiefstellen des freien Meeres. Beispiele verschiedener Ablagerungen mit besonderer Berücksichtigung derjenigen des Schwarzen Meeres.

**Kumata T.** - On the Marine Deposits in the Western Part of the North Pacific Ocean [*De maritimis sedimentationibus in parte occidentali Oceani Pacifici septentrionalis*]. (In Jap.). 1 pl. Suiro Yôhô (Hydrogr. Bull.), XIII, 265-270. Tokyo (1934). **a - 770**

The percentage of sand in the marine deposits in the shallow seas from the Liautung Gulf in the north to the Java Sea in the south is shown on a chart by contour lines. The percentage of sand is determined by the Toulet's method from the deposits collected by the Hayatomo Fisheries Institution. The author attributes the geographical distribution of the percentage of sand mainly to ocean current, the area of great percentage of sand corresponding to the area where the currents prevail. (S. Ogura).

**Laffitte R.** - La Danien et le Nummilitique dans l'Aurès occidental [*De aetatibus Daniana et Nummulitica in occidentali regione* Aurès]. C. R. Acad. Sc., CCI, 27, 1497-1499. Paris (1935). **a - 771**

Sur la base d'une coupe relevée par l'A. le long du chemin qui sur la rive droite de l'oued dans le synclinal d'el Katara borde cette oasis, l'A. distingue 6 couches, dont 3 d'origine marine. Il donne une brève description de ces couches et leur attribution aux diverses époques géologiques.

**Matthews L. H.** - The Marine Deposits of the Patagonian Continental Shelf [*De maritimis depositis in platea continentali Patagoniae*]. Discovery Rep. (Govmt. Depend. Falkland Isl.) IX, 175-206. Univ. Press. Cambridge (1934). **a - 772**

29 types of deposits, divided into 6 groups, are studied in order to provide data on the habits of the bottom-living fauna. Effects of currents on the segregation material of different size.

**Niino H.** - Soundings from the Sea Floor around Cape Tyôsi in Tiba Prefecture, Central Japan [*De explorationibus perpendiculo peractis in fundo marino apud promunturium* Tyôsi (*in Praefectura* Tiba, *Japonia Centrali*)]. 1 fig. 1 table, Bull. Jap. Soc. Scient. Fish. III, 4, 178-181. Tokyo (1934). **a - 773**

Results of the examination of thirty bottom samples obtained by the surveying ships of Tiba Fish. Experimental Station. Four zones are distinguished according to the character of the bottom, analyzed here in a table. The results agree with those already shown in the chart No. 57 published in 1925 by the Hydrographic Dpt of the Imperial Navy.

**Pratje O.** - Die Sedimente des Südatlantischen Ozeans. Lief. 1: Gewinnung und Bearbeitung der Bodenproben [*De sedimentis in Oceano Atlantico Meridionali. Fasc. Ius: Specimina fundi marini. Quomodo obtinentur atque examinantur*]. Wiss. Ergebn. Dtsch. Atlant. Exped. « Meteor » 1925-1927. III, 2. Teil, Walter de Gruyter & Co. Berlin & Leipzig (1933-35). **a - 774**

Gebrauch von neuen Instrumenten für die Gewinnung der Bodenproben. Verzeichnis sämtlicher Stationen mit Angabe von Tiefe und Sedimentprobe.

**Revelle R.** - Preliminary Remarks on the Deep-Sea Bottom Samples Collected in the Pacific on the Last Cruise of the « Carnegie » [*Observationes priores circa specimina a maris fundo peralto detracta in Oceano Pacifico, ultima perdurante navigatione navis* « Carnegie »]. Journ. Sedim. Petrol., V, 1, 37-39. Tulsa, Okla (1935). **a - 775**

Account of the analysis of seventy-five samples of the deep-sea deposits of the Southeastern and the North Pacific collected on the Cruise VII of the « Carnegie » from a very large area, and which therefore afforded an opportunity to reexamine many problems of deep-sea sedimentation in the light of modern methods of sedimentational and soil analysis. Author communicates the classification of the samples made on hand of a chemical analysis. A complete report on the results of several methods of investigation of the samples is given in a publication of the Department of Terrestrial Magneitsm of the Carnegie Institution of Washington.

**Stetson H. C., Schalk M. & Hough J. L.** - Studies in the Sedimentation and Sedimentary Environment [*De sedimentatione eiusque ambiente*]. Woods Hole Oceanogr. Instit., App., Rep., 1934, 32-33. Woods Hole, Mass. (1935). **a - 776**

Way for new investigations is opened by the recent discovery by the U. S. Coast and Geodetic Service of several deep canyons cutting the southern edge of Georges Bank, the study of which may permit to discover the origin of the Georges Bank, to determine the nature and structure of the continental shelf and to establish if the theory is correct that these canyons are submerged river valleys. Analyses of several types of sedimentary rocks containing fossils have been made and the investigation of the different types of sedimentay environment has been continued. An apparatus has also been developed for studying the permeability of beach sands in their natural conditions.

**Stocks Th.** - Erkundungen über Art und Schichtung des Meeresbodens mit Hilfe von Hochfrequenz-Echoloten [*Explanatio in speciem et sedimentationem fundi marini per explorationes echus auxilio, alta frequentia*]. 5 Abb., Naturwiss. XXIII, 24, 383-387. Berlin (1935). **a - 777**

Beschreibung eines an Bord des Vermessungsschiffes « Meteor » eingebauten Debeg - Radiolots. Ergebnisse der vom Vf. im September 1934 auf einer Versuchsfahrt in der Ost- und Nordsee gemachten Beobachtungen. Vergleich mit anderen Loten z. B. dem neuen Atlas-Lot. Einige Schlussfolgerungen in Bezug auf das zweite Echo und die Bedeutung dieses Lotes für die meeresgeologisch- morphologische Forschung.

**Sztrókay K.** - Zalavölgyi pontusi homok szedimentpetrografial viszgälata - Sedimenpetrographische Studie am Pontischen Sande dès Zala-Tales [*Studium sedimento-petrographicum circa arenam vallis* Zala]. (In Ung., Dtsch. Rés.). 2 Fig., 1 Tab., Földt. Közl. (Geol. Mitt.), LXV, 10-12, 281-291. Budapest (1935). **a - 778**

Das hier besprochene Gebiet wurde nach Aufschüttung des pontischen Meeres im levantischen Zeitalter denudiert. Analyse der mechanischen Zusammensetzung der Sandablagerungen.

**Tarasov N. J.** - Celluloid Tubes for Sampling Cores of Deep Sea Mud [*De tubis celluloide formatis ad specimina argilacea e maris profunditatibus capienda*]. Nature, CXXXIV, 3433, 263. London (1935). **a - 779**

The A. suggests the use of celluloid tubes inside the Ekman or Meteor type tubes in order to avoid the inconveniences connected with glass containers.

**Thorp E. M.** - Preliminary Remarks on the Calcareous Shallow-Water Marine Deposits of Florida and the Bahamas [*Observationes priores circa deposita calcarea marina in aquis demissis in regione Florida atque insulis* Bahamas]. Journ. Sedim. Petrol., IV, 111-112. Tulsa, Okla (1934). **a - 780**

**Tomor-Thirring J.** - Stratigraphie und Tektonik des Eozäns im nördlichen Bakony-Gebirge. Beobachtungen in der Sürü-Gebirgsgruppe. [*Stratigraphia et tectonica aetatis eocenicae in montibus septentrionalibus* Bakony. *Observationes circa montes* Sürü]. (Ungar. Rés., Dtsch. Text). 1 Karte, I Skizze. Földt. Közl. (Geol. Mitt.), LXV, 1-3, 1-15. Budapest (1935). **a - 781**

Vf. hat eine ausführliche geologische Kartenaufnahme von ungefähr 25 km² gemacht um die verschiedenen eozänen Bildungen klarzustellen. Hauptnummulinenkalk und Priabonaschichten im nördlichen Bakony-Gebirge mit Verzeichnis von marinen Fossilien.

**Varney F. M.** - A Marine Coring Instrument. Its Construction and Use [*De quodam instrumento ad specimina rupium marinarum capienda. Quaestio de constructione*]. 1 fig., Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr., 25-26, 1935, I, 264-266. Washington D. C. (1935). **a - 782**

A contribution from a research project sponsored by the Committee on Sedimentation of the American National Research Council. Description of the construction and use of an instrument designed to take cores in water 3500 feet deep.

## Topographia submarina - Marini fundi configuratio.

**Bryan W. H.** - The Supposed Deepening of the Sea Floor off Breaksea Spit [*De opinata submersione fundi marini extra regionem* Breaksea Spit]. Rep. Great Barrier Reef Comm., IV, part II, March. Brisbane (1936). **a - 783**

**Carrière L.** - Die Tiefen des Atlantischen Ozeans nach der neuen Tiefenkarte des Meteor-Werkes [*De Oceani Atlantici profunditatibus e nova tabula maris altitudinum deprompta per opera peracta ab expeditione navis* « Meteor »]. 3 Kart., 2 Abb., Umschau, XL, 16, 307-310. Frankfurt a. M. (1936). **a - 784**

Kurze Beschreibung der Bodengestaltung, ihre Bedeutung für die Tiefseeströmungen; Gesamtanschauung des Ozeans. Die Tiefenuntersuchungen von Kestner.

**Cleve - Euler A.** - Det gotiglaciala Havets utbredning samt maximihöjd i Nordfinland och i trakterna omkring Vita Havet [*De extensione maris gotiglacialis eiusque maxima altitudine in Finlandia septentrionali et regionibus quae Mare Album circumdant*]. (Engl. rés.). Terra, 91-112. Helsinki (1934). **a - 785**

**De Buen R.** - Caracteres oceanográficos del Estrecho de Gibraltar en 1932 (Campañas del Istituto Español de Oceanografia). [*Peculiaritates oceanographicae Sinus Gaditani A. 1932* (*Navigatio peracta ab Instituto Hispanico pro Oceanographia*)]. 18 fig., 1 tabl., Inst. Esp. Oceanogr., Notas y Resúm., II, 83, 1-31. Madrid (1934). **a - 786**

Resultados conseguidos en las cuatro campañas hidrográficas del guardacostas « Xauen » por el Estrecho de Gibraltar durante febrero, mayo, septiembre y noviembre 1932, principalmente dedicados a fijar la situación y caracteristícas de la cresta central existente en el Estrecho, que tanto influjo ejerce en las variaciones de la corriente profunda mediterránea.

**De Buen R.** - Caracteres oceanográficos del Estrecho de Gibraltar en 1934 (Campañas del « Xauen »). [*Peculiaritates oceanographicae Sinus Gaditani A. 1934* (*Navigationes navis* « Xauen »)]. (In Españ., Resúm. Franc.). 8 fig., 1 tabl., Inst. Españ. Oceanogr., Notas y Resúm., II, 91, 1-19. Madrid (1935). **a - 787**

Los resultados de dos campañas que se realizaron en el año de 1934 con el guardacostas « Xauen » de la Marina de guerra española para el conocimiento de la hidrografia del Estrecho de Gibraltar, y principalmente para determinar las profundas modificaciones que se establecen en el intercambio de aguas entre el Atlántico y el Mediterráneo en febrero y julio.

**Dietrich G.** - Die Tiefenkarte der ostindischen Gewässer von P. M. van Riel [*Tabula profunditatum marinarum in Indiis orientalibus ad* P. M. van Riel *pertinens*]. 1 Karte. Naturwiss., XXIV, 6, 93-94. Berlin (1936). **a - 788**

Besprechung dieser neuen farbigen Tiefenkarte im Masstab 1 : 2.5 Mill.

**Dittmer E.** - Vorland und Watten zwischen Steinloch und Dwarsloch. Ein Beitrag zur Kenntnis des Niederelbwatts [*Agitur de terrae tractu et mari demisso inter regionem* Steinloch *regionemque* Dwarsloch. *Contributio in studendum mare demissum ad inferiorem partem fluminis* Elbe]. 5 Taf., 47 S., Aus d. Arch. Dtsch. Seew., LV, 6. Hamburg (1936). **a - 789**

Allgemeine morphologische und landschaftskundliche Uebersicht: das Vordeichgebiet, die Wattinseln. Das Wesen und Wirken der wichtigsten ablagernden und abtragenden Kräfte, unter denen die Gezeiten, Gezeitenströmungen und Brandungen zu bemerken sind. Die wichtigsten natürlichen Oberflächenformen, für deren Gesamtaufbau und Gestaltung der Flutstrom sehr wichtig ist. Probleme, die noch ihrer Aufklärung harren, wie z. B. der Zusammenhang zwischen Gezeitenbewegung und Aufbau der Sande.

**Kulling O. & Ahlmann W.:son H.** - Scientific Results of the Swedish–Norvegian Arctic Expedition in the Summer of 1931. Part XII. Observations on Raised Beaches and their Faunas. Surface Markings [*Resultatus scientifici e navigatione Suetio–Norvegica ad regiones arcticas, aestate 1931. Pars XII. Observationes circa ora-*

*rum praealtarum faunas. Signa ad livellum pertinentia*]. 11 figs., 1 pl., Geogr. Ann., XVII, 1, 1-20. Stockholm (1936). **a - 790**

Account of the geological conditions and fossil funds of the different districts round Hinlopenstredet. Tabular lists of *Mollusca* from raised beaches and of shore-lines, m. above sea-level. Polygonal markings.

**Langerfeldt J.** - Untermeerische Scharrkreise im Schlick [*Plantarum vestigia in fundo marino*]. Abb. Nat. u. Volk, LXV, 9, 458-461. Frankfurt a. M. (1935). **a - 791**

Beispiele verschiedener untermeerischer Scharrkreise vom Queller (*Salicornia*) im Schlick im Jadebusen, am Nordstrand bei Wilhelmshaven und in der Wismarer Bucht an Hand sehr wohl gelungener Bilder mit Text.

**Lewis R. G.** - The Orography of the North Sea Bed [*De orographia in fundo marino Maris Nordici*]. Geogr. Journ., LXXXVI, October, 334-342. London (1935). **a - 792**

**Lüders K.** - Grossrücken mit Schillbedekung in der Flachsee [*De terrae formationibus earumque tegumentis in sectoribus mari demisso*]. 1 Tab., 6 Abb. i. T., 6 Abb. a. T., Ann. d. Hydrogr., LXIV, 8, 253-342. Berlin (1936). **a - 793**

In der Aussenjade bilden sich in den tiefen Rinnen zwischen den grossen Sandbänken eigenartige zungenförmige Grossrücken, deren Kappe eine mehr oder weniger mächtige Bedeckung aus Muschelschalen, vermischt mit grobem und feinem Sand, trägt. Von 7 derartigen Grossrücken wurde die Oberflächenbedeckung durch Bodenprobenentnahmen untersucht. Aus der Kornzusammensetzung der Bodenproben wird die Entstehung der Grossrücken abgeleitet. An Hand von Lotungsvergleichen wird die Bildungs- und Wandergeschwindigkeit der Grossrücken ermittelt. (Vf.).

**Nakano M.** - On the Depth Distribution of Hakodate Bay as Influenced by the Action of Prevailing Winds [*De profunditatum distributione in baja* Hakodate *ex influentia ventorum praevalentium*]. 1 fig., Proc. Imp. Acad., XI, 5, 180-182. Tokyo (1935). **a - 794**

In a paper « On the Effect of Prevailing Winds upon the Depth of Bays » (See: Proc., X, 334-337, 1934) author described a method which allows to show the influence of prevailing winds upon the depth of bays in general and showed further the result of application of his method of investigation to an actual example, viz. Suttu Bay (Hokkaidô) when prevailing winds blow from the coast out to the offing. In the present paper he illustrates the application of his method to a contrary case, that of the Hakodate Bay, where prevailing winds blow from the offing towards the coast.

**Nakano M.** - Depth Distribution of Mano Bay (Sado Island) as Influenced by the Action of Prevailing Winds [*De profunditatum distributione in baja* Mano (*in Insula* Sado) *ex influentia ventorum praevalentium*]. 3 figs., Proc. Imp. Acad., XI, 5, 183-185. Tokyo (1935). **a - 795**

In two previous papers (Proc., X, 334, 1934, XI, 180, 1935) author showed the results of investigation on the influence of prevailing winds on the depths of bays, on the examples of the Suttu Bay and the Hakodate Bay, where it seems that the depths are more influenced by the action of prevailing winds, as by those of other factors. In the present paper author communicates his observations upon the influence of prevailing winds on the depth of Mano Bay (Sado Island) in which the depth seems to be influenced not only by prevailing winds, but by tidal or oceanic currents, transport of sand and mud by rivers, etc.

**Shepard F. P.** - Exploration of California Submarine Canyons. (Abstract). [*De exploratis stratis submarinis ad Californiam pertinentibus quae anglice* canyons *nuncupantur*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet.,, Apr., 25–26, 1935, I, 245–246. Washington D. C. (1935). **a - 796**

Results of an investigation on the canyons which have been found in abundance along the slopes off the California Coast, showing that the submarine canyons are decidedly of the river–valley type, having close resemblance to the V-shaped canyons cut into the margins of plateaus. Considerations concerning the time of canyon-cutting and the cause of the emergent sea-bottom.

**Shepard F. P.** - The underlying Causes of submarine Canyons [*Quomodo formantur strata submarina quae anglicae* Canyons *nuncupantur*]. 3 figs., 1 map o. pl., Proc. Nat. Acad. Sc. U. S. A., XXII, 8, 496-502. Washington (1936). **a - 797**

A. ventilates different hypothesis as to the formation of submarine canyons claiming as his view that canyons, at least those of America, have been cut by rivers. A general explanation also with regard to the glacial lowering of the sea level is suggested at the end of the article.

**Smith P. A.** - Oceanographic Activities of the United States Coast and Geodetic Survey [*De operibus oceanographicis peractis ab* U. S. C. and G. S.]. 7 figs., Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr., 25-26, 1935, I, 216-221. Washington D. C. (1935). **a - 798**

Brief account of data collected incident to regular charting activity of the U. S. Coast and Geodetic Survey, such as the temperatures and salinities that are taken to obtain fathometer corrections, and the velocity of sound for use in radio-acoustic ranging. The results of these offshore surveys have disclosed some important and remarkable features of submarine topography which may have an influence on important geologic problems. In addition to the results of this offshore work, hydrographic surveys have been conducted along the coast.

**Stocks Th. & Wüst G.** - Morphologie des Atlantischen Ozeans. Lief. 1: Die Tiefenverhältnisse des offenen Atlantischen Ozeans [*De morphologia Oceani Atlantici. Fasc. Ius. De profunditatibus Oceani Atlantici longe a litoribus*]. 11 Abb., 1 Karte, 32 S., Wiss. Ergebn. Dtsch. Atlant. Exped. « Meteor », 1925-1927, III, 1. Teil, Lief. 1. Walter de Gruyter & Co. Berlin & Leipzig (1933-35). **a - 799**

Begleitworte zu einer Uebersichtskarte. Vergleich mit der von G. Groll 1912 gemachten Karte. Voir note Rev. Hydrogr. XIII, I, 99–101. Monaco (1936).

**Tesch P.** - Gegevens betreffende den bodem van de zuidelijke Noordzee en het Kanaal [*Data circa fundum Maris Nordici meridionalis et Freti Britannici*]. Handel. 25ste Natuur-e. geneesk. Congres, 308-311. ? (1935). **a - 800**

**Woodford A. O.** - Rhomboid Ripple Marks [*De vestigiis quoad aquae contractiones instar rhomboidis*]. 6 figs., Amer. Journ. Sc., XXIX, 174, 518-525. New Haven, Conn. (1935). **a - 801**

In rapid flow waves are propagated down current only, and produce rhombic interference patters. If the current is very shallow, rapid flow may be attained at a velocity so low that the rhombic pattern may be impressed as rhomboid ripple marks upon a mobile, sandy or even muddy bed. Rhomboid ripple marks indicate relatively steep slopes, perhaps 5°, or 10° or 15°. The current direction bisects the acute angles of the rhombs. If a single pattern changes in rhomb size and shape, the larger and more acute rhombs are to be found down the slope. Rhomboid ripple marks are chiefly, but not exclusively, intertidal features. (Author).

**An.** - Research Project on Continental Shelf [*Ratio inquisitiones suscipiendi causa in plateam continentalem*]. Nat. Res. Counc., Amer. Geoph. Un., Trans., 16th Ann. Meet., Apr., 25-26, 1935. Append. C, I, 16. Washington D. C. (1935). **a - 802**

It is suggested that a detailed contour made of the sea-bottom from the present shore-line of New Jersey outward to the glacial shore-line, might furnish a very significant datum-plane for measuring post-glacial levels of the land.

**An.** - Geography of the North Sea Bed [*De geographia fundi marini Maris Nordici*]. Nature, CXXXVI, 3444, 726. London (1935). **a - 803**

Short note on the bathymetrical map of the North Sea floor compiled from the Admiralty Charts and which accompanies a paper by R. G. Lewis in the October number of Geogr. Journ.

# GEOGRAPHIA MARIS

## Geographia descriptiva et oeconomica.

**Anderson I.** - In Eastern Seas with a Visit to Insulinde [*De quadam navigatione ad maria regionum orientalium. Agitur etiam de visitata regione* Insulinde]. Num. phot., 351 pp., B. Humphries. Boston (1934). **a - 804**

**Borowik J.** - Baltic Countries, a Survey of the Peoples and States on the Baltic with special regard to their History, Geography, and Economics [*Regiones Balticae. Conspectus circa gentes et nationes ex earum historia geographica et oeconomica perspectas*]. Publ. by the Baltic Institute. Torun (1935). **a - 805**

Of interest for oceanographers may be: Part I: History and Geography of the Baltic region, and part III: Sea fisheries.

**Bernatzik H. A.** transl. by **Ogilvie V.** - Travels in the South Seas [*De navigationibus ad maria meridionalia*]. 103 photos, tables, 1 map. o. t. xvi + 158 pp., Constable. London (1935). **a - 806**

Translation from the German of description of the travels of the author to the Owa Raha, Owa Rihi, San Christoval, Ulawa Islands from the Salomon Archipelago. The second part of the work is devoted to New Guinea.

**Caubet P.** - Les rades réunionnaises et leurs aptitudes naturelles [*De sinibus ad regionem* Bourbon *pertinentibus eorumque peculiaritatibus naturalibus*]. Bull. Soc. Océanogr. France, XVI, 87, 1507-1510. Paris (1936). **a - 807**

Description des anses ou baies qui sont très nombreuses sur les côtes de Bourbon, classées d'après leurs aptitudes naturelles en vue de l'établissement des ports: I. - Les mauvais mouillages. - II. Rades utilisées autrefois, mais de valeur médiocre. - III. Les rades de Saint-Denis, Saint-Paul et Saint-Pierre. - IV. Conclusions.

**Chapin J.** - To Polynesia on the Yacht « Zaca » [*De navigatione ad Polynesiam in pamphilo* « Zaca »]. 12 pls. Natur. Hist., XXXVI, 293-298. London (1935). **a - 808**

**Clerget P.** - Contribution à l'étude des Iles Paracels [*Contributio in studendas insulas* Paracels]. 1 fig., 5 pl., 1 carte, 18 pp. Inst. Océanogr. Indo-Chine, Stat. Marit. Cauda, Note 20. Hanoï (1935). **a - 809**

**Cotnareanu Y., Vacaresco H. & Morand P.** - Croisière du yacht « Alphée » [*De navigationibus a pamphilo* « Alphée » *peractis*]. 1 pl., 3 cartes h. t. 140 pp. Paris (1935). **a - 810**

M-me Cotnaréanou fait le récit de la visite de son yacht aux capitales du Nord et à son voyage au-delà du Cercle polaire, tandis que M-elle Vacaresco décrit la croisière du yacht dans la Méditerrannée orientale et M. Paul Morand évoque l'atmosphère de Cowes au moment des célèbres régates.

**Darnault P.** - Le développement des voies des communications en Guyane Française [*De itineribus in Guyana Gallica eorumque progressibus*]. Géogr., Terre-Air-Mer, LXV, 2, 154-155. Paris (1936). **a - 811**

Bref compte-rendu des résultats de l'effort du Service des Travaux Publics de la Guyane au début de 1933 concernant l'établissement de voies de communications maritimes et du réseau routier de la Colonie.

**Decary R.** - Un voyage en avion de Madagascar à la Rhodésie [*De quadam aeronavigatione ab insula* Madagascar *ad Rhodesiam*]. 1 croquis, 8 grav. Géogr., Terre-Air-Mer, LXV, 4, 249-274. Paris (1936). **a - 812**

Rapide description du trajet long de 2.450 km., par Mozambique et Quelimane, de Madagascar à la Rhodésie, qui suit, entre autre, le littoral malgache, le canal de Maintirano à Lumbo, près de Mozambique, surpasse l'île de Juan de Nova, l'île de Mozambique et longe la côte jusqu'à Quelimane.

**Detiger J. G.** - Een tournée langs en door het eiland Jappen (Noord-Nieuw-Guinee) [*De insula* Jappen (*in Nova Guinea nordica*) *circumnavigata atque explorata*]. Trop. Nederl., 8, 125-127, 138-140, 156-158. Amsterdam (1935). **a - 813**

**Forbes A.** - A Flight to Cape Chidley, 1935 [*De quadam aëronavigatione ad promunturium* Chidley *A. 1935*]. 5 figs., 1 map o. t. Geogr. Rev., XXVI, 1, 48-53. New York (1936). **a - 814**

Account of a flight from Boston to Cape Chidley and return made in the summer 1935 in connection with an aerial survey of northern Labrador begun in 1931 by an expedition sponsored by the American Geographical Society (S.: Preliminary Report by A. Forbes, Geogr. Rev., XXII, pp. 30-60, 1932). In the present note the preparations for the flight are discussed, and the flight itself described, with special reference to the area of Saglek Bay and Nachvak Fjord and to the explorations near Cape Chidley. The note is followed by two Appendices by O. M. Miller and Charles B. Hitchcock.

**Goma** - Timor [*Insula* Timor]. Ons Zeewesen, 164-167. Bussum (1935). **a - 815**

**Heldring E.** - De Nederlandsche Lijnvaart [*De navigatione hollandica*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LIII, 1, 3-14. Leiden (1936). **a - 816**

Vortrag gehalten an der Sitzung der Geographischen Gesellschaft am 14. Dezember 1935 in Amsterdam. Die natürliche Voraussetzung für die holländische Schiffahrt; die Kauffahrteiflotte heute und vor 100 Jahren im Vergleich mit der anderer Länder; Ueberseeverkehr und ökonomische Entwicklung.

**Huxley A.** - Croisières d'hiver en Amérique Centrale. Trad. de l'Anglais par J. Castier [*De navigationibus hiemalibus in Americam Centralem. I.* Castier *ab anglica lingua in gallicam vertit*]. 1 carte, 316 pp., Plon. Paris (1935). **a - 817**

**Iwan W.** - Island, Studien zu einer Landeskunde [*De Islandia. Studia ad regionem cognoscendam*]. 1 Karte a. T., zahlr. Fig., Taf. u. Kart. Berl. Geogr. Arb., 7. Berlin (1935). **a - 818**

**Jansen P. G.** - Le isole Filippine. Nel mare dei tifoni e degli abissi [*Insulae Philippinae. Agitur de maribus abyssalibus super quae tiphones halitant*]. 34 fig., 2 carte. Le vie dell'Italia e del Mondo, III, 2, 235-260. Milano (1935). **a - 819**

**Joerg W. L. G.** - The Natural Regions of the World Ocean According to Schott [*De oceani regionibus naturalibus secundum* Schott]. 1 fig. Nat. Res. Counc. Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 239-245. Washington D. C. (1935). **a - 820**

Author gives a brief survey of the natural regions of the world ocean according to Schott, who has been the first to apply the concept of the regional synthesis to oceanography in order to create a composite picture of a given region based on an analysis of the constituent elements that give it its character and set it off from other regions. After some general considerations on regional oceanography author deals with the zonal arrangement of the regions, the two polar belts, the two mid-latitude belts, and the tropical belts. The paper is completed by a list of references and notes.

**Kammerer A.** - La Mer Rouge, l'Abyssinie et l'Arabie depuis l'antiquité. Les guerres, du Poivre. Les Portugais dans l'Océan Indien et la Mer Rouge au XVI siècle. Histoire de la Cartographie orientale [*De Mari Rubro, Abyssinia et Arabia. De bellis piperis. De Lusitanis in Oceano Indiano et mari Rubro saec. XVI°. Historia cartographiae orientalis*]. 7 tabl. synoptiques. Tome II, Vol I & II. Soc. R. de Géographie d'Egypte. Le Caire (1935). **a - 821**

1er volume, première partie, Histoire: Les Portugais à la conquête des Epices et à la recherche du Prêtre Jean. L'Inde et les voyageurs occidentaux jusqu'à la fin du XVe siècle. Vasco de Gama et la Route des Indes. La science astronautique des Portugais et des Arabes à la fin du XVIe siècle. Le grand d'Albuquerque et d'Almeida. D'Albuquerque et la première croisière portugaise dans la mer Rouge (1513). Un siècle de l'Histoire Yéménite (1450-1538). La flotte égyptienne et la conquête de l'Yémen. L'Yémen dans les premières années de la conquête turque (1517-38). Mathieu l'Arménien. Ambassadeur d'Abyssinie au Portugal (1508). Les études d'Abyssinologie en France.

2me volume: Lopo Soarès de Albergaria et ses successeurs jusqu'en 1530. Les croisières portugaises dans la mer Rouge de 1517 à 1528. L'Ambassade de R. Lima et du chapelain Alvarez auprès du Prêtre Jean (1521-1526).

Deuxième partie: Histoire de la géographie: La cartographie orientale jusqu'aux grandes découvertes. Les grandes découvertes et la cartographie. Premiers portulans relatant les découvertes. La cartographie des Reinel et leur école (1516-1520). La cartographie orientale et les cartographes officiels jusqu'au second tiers du XVIe siècle. Conséquences du voyage de Magellan. Les globes. Les grands *padrones* ou cartes-types hispanoportugaises de 1527-29.

**Klute F.** - Handbuch der Geographischen Wissenschaft herausgegeben von... [*Liber de scientia geographica editus a...*]. Lief. LVII, 13, LVIII, 7, LIX, 7, IX, 5. Akad. Verlagsges. Athenaion. Potsdam (1935). **a - 822**

Fortsetzung des wichtigen Werkes enthaltend: Wildpark-Lieferung 57. Südost und Europa, H. 13, Lief. 58. Nordasien, Zentral- und Ostasien, H. 7, Lief. 59. Afrika, H. 7, Lief. 60. Vorder- und Südasien, H. 5.

**Luke H.** - The Maltese Islands Cicero's Land of « Honey and Roses », and Stronghold of the Knights, again is Focus of Naval Strategy [*De insulis Melitae quas Cicero insulas mellis et rosarum nuncupavit. Arx equitum melitensium denuo centrum considerari potest strategiae navalis*]. 2 maps. Nat. Geogr. Mag. LXVIII, 5, 647-666. Washington D. C. (1935). **a - 823**

Historical and short paleontological review. Population, language, customs and festivals. The Knights and the Order.

**Makis J.** - La Corse [*Corsica*]. 1 carte h. t. 17 fig. Mer et Outre-Mer. Août, 7-16. Paris (1935). **a - 824**

Notes historiques et littéraires; position géographique, côtes, structure géologique. Administration, population, faune.

**Marmer H. A.** - The Sargasso Sea [*De Mari Sargassorum*]. Geogr. Rev., XXVI, 1, 159-160. New York (1936). **a - 825**

On hand of the work of Louis Germain (Bull. Inst. Océanogr., nº 671, Monaco, 1935) and Winge's study of the origin of the floating seaweed of the Sargasso Sea, author gives a summary of our present knowledge of the oceanic region known as the Sargasso Sea.

**Meunier A.** - Sur le développement des côtes maritimes françaises (Métropole et pays d'outremer) [*De progressione litorum maritimorum gallicorum*]. Tabl. Géogr., Terre-Air-Mer, LXV, 5/6, 365-374. Paris (1936). **a - 826**

Résultats d'un travail de recherche, basé sur des cartes topographiques aux échelles moyennes, jamais au-dessus de 1/25.000 ni au-dessous de 1/100.000, fait dans le but de déterminer, en serrant le plus près possible la vérité, le développement des côtes maritimes françaises, étant donné que dans les ouvrages, contenant des renseignements sur ce sujet, de trop nombreuses erreurs et des écarts trop importants ont été constatés.

**Migliorini E.** - Bibliografia geografica della regione italiana [*Bibliographia geographica Italiae*]. (Anno 1933), Boll. R. Soc. Geogr. It., ser. VI, XI, 12, 747-891. Roma (1934). **a - 827**

**Morsier** - Les bancs de Terre-Neuve [*De vadis ad Terram Novam pertinentibus*]. 1 fig., 15 nov. Ann. de Géogr. Paris (1935). **a - 828**

**Orchard J. E.** - Shanghai. – 15 figs., 2 tables. Geogr. Rev., XXVI, 1, 1-31. New York (1936). **a - 829**

This article is a part of a study of the industrialization of the Far East with a special regard to the economic importance of Shanghai.

**Oulie M.** - Les Antilles, filles de France [*Insulae Antillae*]. 16 pl., 1 portr., 309 pp. Fasquelle Edit., Paris (1935). **a - 830**

Impressions de voyageuse sur Martinique, Guadeloupe et Haïti publiées au moment de la célébration du tricentenaire de la conquête des Antilles par la France.

**Palacio J.** - Filipinas, orgullo de España. Un viaje per la Islas de la Malasia [*Insulae Philippinae. Navigatio quaedam ad insulas Malesiae*]. C. Bermejo, Madrid (1935). **a - 831**

Texto ampliado de las conferencias dadas en la Sociedad Geográfica Nacional los dias 13 y 20 de mayo de 1935 a Madrid.

**Panzer W.** - Reisen und Forschungen auf der Philippinen-Insel Luzon [*De navigationibus ad insulam* Luzon *ad Philippinas pertinentem. Investigationes peractae*]. Naturwiss. XXIII, 29, 513-515. Berlin (1935). **a - 832**

Vortrag gehalten am 12. Januar auf der Sitzung der Gesellschaft für Erdkunde zu Berlin. Der Redner berührt hauptsächlich die Bildung dieser im Grenzgebiet des grössten Festlandes und des grössten Ozeans gelegenen Insel. Fauna. Bewohner. Politische Verhältnisse.

**Pettersson H.** - Statens Havsforskningsstationer vid Gullmarsfjorden [*De stationibus oceanographicis Suetiae apud fiordum* Gullmar]. Jorden runt, 505-520. Stockholm (1934). **a - 833**

**Piedra J. M.** - La gran via del norte y la Navegación al alto Maranon [*De magno cursu maritimo ad regiones nordicas deque navigatione ad superiorem regionem* Maranon]. LIII, 1e Trim., 3-24, Soc. Geogr. de Lima. Lima (1936). **a - 834**

**Rios Cossa (del) J.**, publ. con algunas notas por el **Bareiro A.** - Descripción de la Florida Oriental hecha en 1787 [*De Florida orientali. Descriptio A. 1787*]. Bol. Soc. Geogr. Nac., LXXV, 7, 420-432; 8, 456-460. Madrid (1935). **a - 835**

Reproducción de el trabajo cuyo titulo encabeza esto articulo, que contiene datos acerca la Florida Oriental en 1787 y que fué acompañado de un plano muy detallado de este pais y de sus costas, ilustrado además con varias anotaciones, probablemente de puño y letra de su autor.

**Salmon Ch.** - La côte française des Somalis. Mission géodésique de 1934-35 [*De litoribus Somaliae Francogallicae. Missio geodesica A. 1934/35*]. 1 carte h. t., 29 fig., Mer et Outre-Mer, Octobre, 7-16. Paris (1935). **a - 836**

Etendue des côtes; frontières; population et coûtumes; faune marine et pêche; géologie; climat.

**Smith P. A.** - Submerged Atolls of Palawan [*De atollis submersis ad regionem* Palawan *pertinentibus*]. Geogr. Rev., Jan., 160-161. New York (1935). **a - 837**

**Taussig E. D.** - Old Glory on Wake Island [*Descriptio occupationis insulae* Wake]. U. S. Nav. Inst. Proc., LXI, 6 (388), 807-808. Annapolis, Md. (1935). **a - 838**

Brief description of the ceremony of taking possession by the United States of the Atoll known as Wake Island on January 17th, 1899. (From « Twice-a-Week Picayne », New Orleans, May 18th, 1899).

**Teichert C.** - Nordost-Grönland [*Groenlandia Nordorientalis*]. 9 Abb., 6 Taf., Ztschr. Ges. Erdkunde, 5/6, 169-215. Berlin (1935). **a - 839**

**Titayna** - En voilier à travers les îles de la Sonde [*De quadam navigatione in navi velica per insulas quarum nomen* Sonda]. 12 fig., Mer et Outre-Mer, Octobre, 24-28. Paris (1935). **a - 840**

L'A. nous raconte de son exploration en donnant surtout des notices sur la population et ses coûtumes.

**Wittmann O.** - Die biogeographischen Beziehungen der Südkontinente. Teil 2. Die südatlantischen Beziehungen [*De correlationibus biogeographicis terrarum continentium meridionalium. Pars IIa: Correlationes sudatlanticae*]. 10 Abb., Zoogeographica, III, 1, 27-65. Jena (1935). **a - 841**

Dieser Teil behandelt nur die zwischen Südamerika und Afrika nachgewiesenen Beziehungen. Geschichtliche Vorbemerkungen. Räumliche (Vergleich zwischen Fauna und Flora) und zeitliche Beziehungen. Das Problem der Verknüpfung: Brücke oder Epeirophorese, die Bildung des atlantischen Raumes. Bibl. Teil 1 der Arbeit (die antarktischen Beziehungen) ist in Zoogeogr. 2, 1934 erschienen.

**Bureau Hydrographique International.** - Noms des pays dans les langues européennes utilisant l'alphabet latin [*Nomina regionum ex idiomatibus europaeis. Regiones quae alphabeto latino utuntur*]. 1 table. Rev. Hydrogr., XII, 2, 147. Monaco (1935). **a - 842**

Liste contrôlée par la Royal Geographical Society. Voir article in Roy. Geogr. Journal LXXXV, 5, London. (1935).

**Central Executive Committee of the USSR.** - Renaming of Samuel Islands [*Nuncupationis variatio Insularum* Samuel]. (In Russ. & Engl.). Bull. Arct. Inst., V, 8, 232, 264. Leningrad (1935). **a - 843**

Information of the decision of the Committee to change the denomination of Samuel Islands in the Laptev Sea into « Islands of the Komsomoljskaja Pravda ».

**An.** - La Terre d'Ingrid Christensen [*De Terra* Ingrid Christensen]. (En russe). Bull. Arct. Inst., V, 9, 296. Leningrad (1935). **a - 844**

Information supplémentaire concernant la découverte d'une nouvelle partie du littoral du continent Antarctique par la baleinière norvégienne « Thorshavn » dans 68°39′ S., et 78°36′ E, à laquelle le nom de Terre d'Ingrid Christensen a été attribué.

**An.** - Geographical Positions - Positions géographiques [*Positiones geographicae*]. (In Engl. & French). 1 table. Int. Hydrogr. Bull. - Bull. Hydrogr. Int., I, 5. Monaco (1936). **a - 845**

Addendum to « Special Publication n° 24 A. Geographical Positions - Part II. February 1931. Results of the most recent astronomical observations of the Hydrographic Service and Inspector of Navigation of the Oriental Republic of Uruguay forwarded to the International Hydrographic Office on November 19th, 1935.

**An.** - L'appellation des fosses de Nares et de Puerto-Rico [*Fossarum nuncupatio in* Nares *et* Puerto-Rico]. 4 fig. Rev. Hydrogr., XIII, 1, 94-98. Monaco (1936). **a - 846**

Historique. Description.

**An.** - Limites des Océans et des Mers - U. R. S. S. [*De limitibus oceanorum et marium*]. 1 fig. Rev. Hydrogr., XIII, 1, 169-172. Monaco (1936). **a - 847**

## Geographia Polaris.

**Almagià R.** - Le Terre polari [*Terrae polo proximae*]. III vol. della Geografia Universale. Unione Tip. Ed. Torinese. Torino (1936). **a - 848**

**Amundsen R.** - Navigation à travers le passage nord-occidental sur le navire « Gjøa » [*Navigatio trans passum nord-occidentalem navis* « Gjøa »]. Ill., 1 carte h. t., 468 pp., Ed. « Glavsevmorpoutj ». Leningrad (1935). **a - 849**

**Androsova V. P., Kaljanov V. P. & Savvatimsky J. P.** - A Geographical Sketch of Kanin Peninsula [*Descriptio geographica paeninsulae* Kanin *nomine*]. (In Russ.). 33 photos, 2 maps, 1 pl., Trans. Oceanogr. Inst., IV, 2, 3-38. Moscow (1934). **a - 850**

Organisation et trajet de l'expédition. Description générale de la côte ouest de la péninsule de Kanine; région de la rivière Tchizha, région de la rivière Chomokcha, id. de la rivière Volosova, id. de la Grande et de la Petite Kija, id. de la rivière Chojna, id. des rivières Mesna et Torna, bourg de Tarkhanovo. L'industrie de la pêche. La pêche maritime. La voie maritime Tchizha-Tchecha.

**Arsentjev D.** - 15 ans de l'Arctique Soviétique (Session Jubilaire de l'Institut Arctique) [*De regione arctica Sovietica, XV° recurrente anno a fundatione Instituti Arctici*]. (En russe). 5 fig.. Karelo-Mourm. Kraj, 4, 4-7. Leningrad (1935). **a - 851**

**Bajevskij I. L. & Maslov M. I.** - Perspectives de développement de la Voie Maritime du Nord [*De Via maritima nordica eiusque progressibus*]. (En russe). 8 fig., V Boj za Tekhn., 9, 22-24. Moskva (1934). **a - 852**

**Belavine A. F. & Berzak D. S.** - Points astronomiques de la Région du Nord (Carte) [*De punctis astronomicis ad Regionem Nordicam pertinentibus*]. Karty Sev. Kraja, 1 f., 1° Kart. Fabr. Leningrad (1934).

( — ) Cartogramme des matériaux fondamentaux, utilisés pour l'élaboration de la Carte à 1/5000000 de la Région du Nord, et schéma de la disposition des feuilles de la carte. (En russe). Id. id. **a - 853**

Longitude de Greenwich, réseau le long du parallel entre les méridiens 6° et 2°. Echelle: 1 : 5 000 000; sans relief; en deux couleurs.

**Boyd L. A.** - The Fiord Region of East Greenland [*De fiordis in Groenlandia orientali*]. 363 figs., 12 pls., 3 maps o. t., 369 pp. Amer. Geogr. Soc. Spec. Publ., 18. New York (1935).

( — ) See. Rev. in Amer. Geogr. Soc. Spec. Publ., 18, 377. New York (1935). **a - 854**

Account of A:s interesting expeditions, illustrated with beautiful photos and articles written by the members of the scientific staff of the expedition. J. Harlen Bretz describes the physiographic studies; W. B. Drew gives some information on his botanic collections; and O. M. Miller and W. A. Wood of the American Geographical Society give contribution to the work of Prof. Bretz completed with coloured charts of the region investigated. M. C. B. Hitchcock communicates and comments the results of acoustic soundings made in the Eastgreenlandian fjords and during the voyage from Norway to the Greenland Sea completed with a bathymetric chart. John K. Wright summarizes a complete account of the history of the exploration of the fjords and the region of East-Greenland.

**Byrd R.**, trad. de l'angl. par **Dougovskaja V. L.** - Au dessus du Pôle Sud [*De aëronavigatione per polum meridionalem*]. Fig. & cartes, 420 pp., Glavsevmorputj. Leningrad (1935). **a - 855**

**Byrd R.** - Exploring the Ice Age in Antarctica [*Aetas glaciei in regione antarctica perpenditur*]. 2 maps, 72 ill., Nat. Geogr. Mag., LXVIII, 4, 399-474. Washington (1935). **a - 856**

An artistical, interesting description of the last exploration of the well known American Admiral in Antarctica.

**Byrd R.** - Antarctic Discovery [*De explorationibus in regione antarctica*]. Putnam & Co., Ltd. London (1936). **a - 857**

Description of A:s second antarctic expedition; scientific research work executed concerning 22 different branches of science.

**Chelepine L. V.** - Le travail des Stations Polaires [*De operibus a Stationibus polaribus peractis*]. (En russe). Za Osvoj. Arkt., 153-164. Leningrad (1935). **a - 858**

**Christensen L.**, transl. by **Jayne E. M. G.** - Such is the Antarctic [*Talis regio antarctica*]. Map, ills., xii & 15 + 265 pp. Hodder & Stoughton. London (1935).

( — ) Rev. of the volume in « Geogr. Rev. », XXVI, 1, 163-165. New York (1936). **a - 859**

The present is the first book in English containing a survey of the important part of recent Antarctic exploration represented by the Norwegian expeditions sponsored by the whaling industry. Author is head of the whaling firm that has sent out the vessels and fitted out the expeditions described which took place during the period 1926-1934. In addition to the accounts of the various expeditions the volume contains numerous details, some of them new, concerning the geographical features discovered, the technique of whaling, the questions of political sovereignty involved, and other matters.

**Dadykine V.** - La valorisation de la Voie Maritime du Nord [*Valor tribuendus Viae maritimae Nordicae*]. (En russe). Gheogr. v. Chkolje, 4, 30-34. Moskva (1935). **a - 860**

**Debenham F.** - Some Aspects of the Polar Regions [*Nonnulli aspectus regionum polis proximarum*]. Nature, CXXXVI, 3438, 459-462. London (1935). **a - 861**

Presidential address delivered at the meeting of the British Association at Norwich on September 5. Trade and trade routes. The poles as sanatoria. World meteorology. Geology. The spirit of Exploration.

**Deherain H.** - Un Institut d'histoire et d'étude des régions polaires [*De quodam instituto ad regiones polis proximas ex historia atque scientia studendas*]. Journ. d. Savants, nov.-déc., 266-269. Paris (1934). **a - 862**

**Dietrich G.** - Neuere antarktische Meeresforschung [*Investigationes oceanographicae recentiores in regionibus antarcticis*]. Naturwiss., XXIV, 6, 94. Berlin (1936). **a - 863**

Kurze Uebersicht der im 20. Jahrhundert, hauptsächlich von England und Norwegen, gemachten Fahrten.

**Djakonov M. A.** trad. sous la réd. de . . . . . - La dernière expédition d' Alfred Wegener au Groenland en 1930-1931, d'après les souvenirs de ses membres et les journaux d'Alfred Wegener [*De postrema expeditione ab* Alfred Wegener *suscepta in Groenlandiam, A. 1930/1931 ex memoriis eius sociorum atque diariis ipsius*]. (Trad. en russe de l'allem.). Ill., 1 carte, 1 portr. h. t., xiv–299 pp., Ed. Glavsevmorputj. Leningrad (1935). **a - 864**

**Dmitriev S.** - La mer polaire du nord comme zone pittoresque [*Mare polare septentrionale ac regio amoena consideratur*]. (En russe). Gheogr. v. Chkolje, 2, 16-20. Moskva (1935). **a - 865**

**Egorov A. S.** - Les transports dans la région du Nord. Etat actuel et perspectives de leur développement [*Quaestio de subvectionibus per regiones nordicas. Agitur de hodiernis condicionibus progressibusque*]. (En russe). Tabl., diagr., 8 pl. h. t., 64 pp., Sev. Kraj. Izd. Arkhangheljsk (1933). **a - 866**

**Ermolaev** - 15 îles nouvelles [*De 15 insulis novis*]. (En russe). Meteorol. Vestn., 10/12, 333. Leningrad (1934). **a - 867**

Chronique de la découverte de 15 îles nouvelles dans l'Arctique Soviétique.

**Esipov V. K.** - La Terre de François-Joseph [*De Terra Francisci Josephi*]. (En russe). Ill., 1 carte, 74 pp. Sev. Kraj. Izdat. Arkhangheljsk (1935). **a - 868**

**Evghenov N. I.** - Considérations sur le déplacement maximum des brise-glace puissants sur la Voie Maritime du Nord [*De maxima glaciei superficie quam naves glaciei ruptrices amovere possunt in navigando per viam maritimam nordicam*]. (En russe, rés. angl.). Sev. Morsk. Poutj (Rec. Art. Hydrogr. & Navig.), I, 52-57. Leningrad (1934). **a - 869**

**Evghenov N. I.** - Une marque séculaire sur le Cap Moghilnyj (Tajmyr Occidental). [*Signum quoddam saeculare in promunturio* Moghilnyj]. (En russe, rés. angl.). Sev. Morsk. Poutj (Rec. Art. Hydrogr. & Navig.), I, 97-99. Leningrad (1934). **a - 870**

**Fedortzev V.** - Nouvelles données sur la région Yana–Indighirka [*Notitiae novae circa regionem* Jana–Indighirka]. (En russe). 1 carte. Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr. Etat), LXVII, 5, 588–598. Leningrad (1935). **a - 871**

L'A. fait noter les erreurs qui se sont glissées dans les cartes de la région Yana-Indighirka et donne la description de son relief et de son caractère géomorphologique sur la base de nouvelles données qui modifient considérablement nos connaissances des 8 zones particulières qui forment l'ensemble de la région.

**Feinstein I. G. & Zubov N. N.** - Quelques résultats de la Deuxième Année Polaire Internationale [*De nonnullis resultatibus ex operibus peractis secundo perdurante anno internationali polorum*]. (En russe). Vestn. Edin. Ghidrol. Slouzhby, 8, 9-13. Moskva (1935). **a - 872**

**Freimann K. A.** - La péninsule de Tajmyr et la mise en valeur de la Voie Maritime du Nord [*De paeninsula* Tajmyr *deque valore tribuendo viae maritimae nordicae*]. (En russe). 5 fig., 1 carte, Nauka i Jiznj, 4, 39-43. Moskva (1935). **a - 873**

**Grandidier J.** - La campagne du « Pourquoi-Pas ? », 1929-1934 [*De navigatione navis* « Pourquoi-Pas ? », *A. 1929-34*]. 2 fig. Monde & Voyage, 117, 198. Paris (1935). **a - 874**

**Greely A.** - Trois années dans l'Arctique 1881-1884 [*In regione arctica per tres annos*]. (En russe, trad. de l'Angl. sous réd. de V. K. Essipov). ill., 1 carte h. t., portr. de l'A., 339 pp., Edit. « Glavsevmorpoutj ». Leningrad (1935). **a - 875**

**Holtedahl O.** - Scientific Results of the Norwegian Antarctic Expedition 1927-1928 [*Resultatus scientifici ab expeditione in regiones antarcticas a Norvegis peracta, A. 1927–28*]. Num. figs., pls., charts & maps. Scient. Res. Norw. Antarct. Exped., I, 14. J. Dybwad. Oslo (1935). **a - 876**

**Ivanov I. M.** - Le Spitzbergen [*De regione nomine* Spitzbergen]. (En russe). Fig. & tabl., 2 cartes h. t. 76 pp., OGHIZ, Arkhangheljzk (1934). **a - 877**

**Ivanytchouk M. N.** - Note sur la cartographie de la Terre de François-Joseph. Les Iles Komsomoljskijé [*Nota de carthographia circa Terram Francisci Josephi. De insulis* Komsomoljskije]. (En russe). 1 carte, Arctica, II, 97-99. Leningrad (1934). **a - 878**

Bref compte-rendu sur la découverte par l'A. au cours d'une expédition en traîneau d'un groupe d'îles dans le détroit Avstrijskij (Autrichien) qui n'est pas indiqué sur les cartes russes de cette région. La position de ces îles est déterminée par les coordonnées: 80°34′30″-80°40′ N et $\lambda$ = 50°41′30″-59°03°30″ E. L'A. leur a donné le nom des Iles Komsomoljskijé.

**Jankovitch V.** - Expéditions arctiques de l'année 1934 [*De navigationibus ad regiones arcticas, A. 1934*]. (En russe). 7 fig., 1 carte. V Boj za Tekhn., 9, 25-27. Moskva (1934). **a - 879**

Brève description des voyages des brise-glace « Sadko », « Sedov » et « Roussanov » et du coupe-glace « Lidtke ».

**Jennov I. G.** - Ostgrønlandsk Fangstkompagni « Nanok » & « Gefion ». Ekspedition til Danmarkshavn og Hvalrosodden Juli-September 1932, og Nogle Iagttagelser Vedrørende Isforhold ved den Grønlandske Nordostkyst [*De navigationibus venatoriis in Groenlandiam orientalem navibus peractis* « Nanok » & « Gefion ». *Expeditio a regione* Danmarkshavn *ad regionem* Hvalrosodden, *a mense Julio ad mensem Septembrem A. 1932*]. 6 fig., 4 kart. 54 pp. Levin & Munksgaard, Copenhague (1935). **a - 880**

**Kaljanov V. P.** - Report on Geo-morphological Works During the Cruise to Wrangel Island in 1929 on Board the Ice-Cutter « F. Lidtke » [*Relatio de operibus geomorphologicis, perdurante navigatione ad insulam* Wrangel, *A. 1929 peracta a navi glacieiruptrice* « F. Lidtke »]. (In Russ., Engl. Summ.). 45 photos, 44 figs., 4 maps. Trans. Oceanogr. Inst., IV, 2, 48-64. Moscow (1934). **a - 881**

I. Avatsh-Bay: changing of the sea-level in the Bay and report on the conclusions obtained during recent investigation of the phenomenon. II. Bay of Providence: influence of the glaciation on the relief of the Bay. III. Wrangel Island: results of the observations on the shore line, botanical and zoological investigations of the island, its geo-morphological character, its inland lakes and rivers.

**Kedrolivanskij V. N.** - Travaux du Laboratoire Géophysique Central pour l'exécution du programme de la II-ème Année Polaire Internationale [*De operibus peractis a Laboratorio Geophysico Centrali ad perficiendam rationem quae pertinet ad II$^{um}$ Annum internationalem polorum*]. (En russe, rés. angl.). Izv. Glavn. Ghéofis. Labor. 4, 36-40. Leningrad (1934). **a - 882**

**Khmyznikov P. K.** - Atlas du fleuve Jana avec matériaux pour la navigation [*Atlas fluminis* Jana *cum rebus annexis pro navigatione*]. (En russe). Cartes, 41 pp., Izd. Akad. Naouk U. R. S. S. & Ghidrogr. Oupr. GUSMP. Leningrad (1934).

(—) Matériaux pour la navigation sur le fleuve Jana (Appendice à l'Atlas, tabl. 116 pp. même édit.). Leningrad (1934). **a - 883**

I. Le fleuve Jana depuis la ville de Verkhojansk jusqu'au bourg Kazatschij. II. Le delta du fleuve Jana.

**Khmyznikov P.** - La Voie Maritime du Nord [*De Via maritima Nordica*]. (En russe). 1 carte. Nauk. i Tekhn., 13, 11-12. Leningrad (1935). **a - 884**

**Klenova M. V.** - L'île Victoria [*De insula Victoria*]. (En russe). 7 fig. Arctica, III, 79-87. Leningrad (1935). **a - 885**

Description physico-géographique de l'Ile Victoria située à 80°08′ lat. N. et 37°00 long. O. sur l'extrême limite occidentale du territoire polaire de l'URSS, sur la base des observations géomorphologiques faites en 1932 au cours de l'expédition de l'Institut Océanographique de l'État de l'URSS sur le navire « Knipovitch ».

**Krastine E. F.** - La Voie Maritime du Nord en exploitation [*De activitate quae pertinet ad Viam Maritimam Nordicam*]. (En russe). 1 carte h. t. Sov. Arktika, 1, 20-23. Leningrad (1935). **a - 886**

**Kurze F. W.** - Nordmeerfahrten der Reichsmarine mit dem Vermessungs- und Forschungsschiff « Meteor » nach Island, Grönland und Jan Mayen [*De navigationibus ad maria regionum arcticarum peractis a classe germanica, navis exploratricis nomine* « Meteor » *auxilio. Expeditio* ad Groenland *et* Jan Mayen). 65 Abb. a. T., 2 Textabb. Dietrich Reimer (Andrew & Steiner). Berlin (1935). **a - 887**

**La Cour D.** - L'année polaire internationale 1932-1933. Les buts, les méthodes et quelques résultats préliminaires [*De anno internationali polorum. A. 1932-1933. Rationes, proposita, resultatus priores*]. 1 pl. Cons. Int. Un. Scient., 1934, 181-207. Londres (1934). **a - 888**

Rapport présenté à l'Assemblée Générale du Conseil International des Unions Scientifiques à Bruxelles, en 1934.

**Le-Mure** - La Grande Voie Maritime du Nord [*De magna Via Maritima Nordica*]. (En russe). Sovetsk. Jakoutija, 1/2, 30-45. Jakoutsk (1934). **a - 889**

La Voie Maritime du Nord, son importance, son histoire et sa signification. Rôle de la côte de la Jakoutie et en particulier du bassin du fleuve Léna dans le système de la Voie Maritime du Nord. Organisation d'un trust spécial de transports industriels dans la Jakoutie, le « Jakoutsevmorpoutj » et son importance pour l'URSS.

**Loewe F.** - The Exploration of the Greenland Ice-Cap [*De explorato tegumento glaciali Groenlandiae*]. Scott. Geogr. Mag., LI, 6, 347-353. Edinburgh (1935). **- a 890**

**Martonne (de) E.** - Une mission polonaise au Spitzberg en 1934 [*De missione quadam Polona ad* Spitzbergen, *A. 1934*]. Géogr., Terre-Air-Mer, LXV, 2, 156-160. Paris (1936). **a - 891**

Bref compte rendu sur l'organisation, le travail et les résultats obtenus par une mission polonaise qui s'est rendue au Spitzberg pour y effectuer diverses recherches scientifiques concernant surtout la géologie, la météorologie, la botanique et la zoologie, avec référence spéciale aux travaux cartographiques qui ont été accomplis.

**Miloradovich B. V.** - Visit to W. Barents' Wintering Camp in Ice Harbour, Novaja Zemlja [*De visitatis castris hiemalibus ad* W. Barents *pertinentibus in portu* Ledjanaja (Novaja Zemlja)]. (In Russ. Engl. Summ.). 2 pls. Arctica, II, 187-190. Leningrad (1934). **a - 892**

Description of the remains of the wintering camp of W. Barents on Cape Spory Navolok (Ice Harbour, Novaja Zemlja) found by the Russian Expedition in the eastern part of the Novaja Zemlja in 1933.

**Minejev A.** - 5 ans sur l'Ile Wrangel [*In insula* Wrangel *per 5 annos*]. (En russe). 76 pp. Dalkghiz., Khabarovsk (Sibérie) (1934).

(—) V. Sov. Sever. 2, 70-85. Moskva (1935). **a - 893**

Sténogramme d'une conférence tenue le 9 novembre 1934.

**Mironov A.** - Les avions [*De aëronavibus*]. (En russe). Zvezda Sev., 8, 25-33. Arkhangheljsk (1934). **a - 894**

Récit de l'existence menée dans le campement de Schmidt et des exploits des aviateurs de l'expédition de secours envoyée en aide au « Tchéljouskine ».

**Molokov V. S.** - Au delà du Cercle Polaire [*Trans circulum polarem*]. (En russe). 1 fig., V Boj za Tekhn., 9, 29. Moskva (1934). **a - 895**

L'aviateur polaire Molokov raconte dans ces lignes quelques épisodes de ses vols dans l'Arctique.

**Mukhanov L.** - Dans le Pays du silence glacial [*De regionibus glacialibus*]. (En russe). Ill., 1 carte h. t. 198 + 2 pp., Sevkrajghiz., Arkhangheljsk (1934). **a - 896**

Voyage du brise-glace « Gheorghij Sedov » à la Terre de François-Joseph et à la Terre du Nord. Préface de R. L. Samojlovitch.

**Nikoljskij A. P.** - Observatoire sur la Terre de François-Joseph [*De quodam observatorio in Terra Francisci Josephi*]. (En russe). Klimat i Pogoda, 1 (52), 19-25. Leningrad (1934). **a - 897**

**Obroutschev S.** - Investigation of the Chaun District, Chukchee Land in 1934-35 [*De explorato districtu* Tschaun *in regione* Chukchee]. (In Russ. & Engl.). Bull. Arct. Inst., V, 11, 380-383, 413-415. Leningrad (1935). **a - 898**

Brief account of the results of an expedition sent out by the Arctic Institute which worked from August 1934 to August 1935 and explored an area of 80 000 sq. km. in the region around the Chaun Bay, as well as on its shores. Geological, cartographical, and astronomical observations have been made and new light thrown on the configuration and geology of the region, which has not been visited by any investigator since the Billing expedition in 1791.

**Ouchakov G.** - Dans le camp de Schmidt [*In castris professoris* Schmidt]. (En russe). Sov. Sev., 4, 66-79. Moskva (1934). **a - 899**

Reproduction abrégée du sténogramme du rapport fait par l'A. sur la vie dans le camp de Schmidt.

**Ouchakov G. A.** - Les buts de la Voie Maritime du Nord et le plan de son activité en 1935 [*Proposita quae pertinent ad Viam Maritimam Nordicam atque ratio pro A. 1935*]. (En russe). Za Osvojenije Arkt., 41-48. Leningrad (1935). **a - 900**

**Ourvantzev N.** - Sur la cartographie et la géologie de la partie septentrionale de la Péninsule de Tajmyr [*De cartographia et geologia paeninsulae* Tajmyr]. (En russe). 1 carte, Bull. Arct. Inst., V, 5/6, 126-129. Leningrad (1935). **a - 901**

Compte rendu d'un levé, exécuté en 1933, de la partie septentrionale de la péninsule de Tajmyr et de la région des Iles Samuel, ainsi que du fjord Thérèse Klavenes, dont la traversée a été faite pour la première fois dans les annales de l'exploration polaire, sur des automobiles semi-chenilles de construction soviétique.

**Peskoff N. N.** - Les transports de bois en provenance des mers Blanche et Karskaja [*De lignorum subvectionibus a Mari Albo Marique Karensi provenientibus*]. (En russe). 39 fig. 196 pp., Ed. Rég. Nord. Arkhangheljsk (1934). **a - 902**

Renseignements pratiques sur les transports maritimes de bois en général, complétés par certains détails concernant la navigation dans les mers arctiques.

**Pierre A.** - Prochaines expéditions russes dans l'Arctique [*De proximis navigationibus russicis in regiones arcticas*]. Géogr., Terre-Air-Mer, LXIV, 1, 55-57. Paris (1935). **a - 903**

Bref compte rendu du programme des explorations soviétiques dans l'Arctique au cours de 1935, dont le but principal est le développement du trafic maritime dans le Nord qui exige une exploration méthodique de l'Océan Glacial et l'organisation de dépôts de charbon tout le long du littoral de l'Arctique. Quelques considérations concernant l'importance et la signification futures de la Voie Maritime du Nord (Sevmorpoutj).

**Port I.** - De l'Ouest à l'Est [*Agitur de quadam navigatione a regione occidentali ad orientalem*]. (En russe). Karelo-Mourm. Kraj, nº de décembre, 56-59. Leningrad (1934). **a - 904**

Chronique de la troisième campagne soviétique le long de la Voie Maritime du Nord.

**Rabot Ch.** - Spitsberg, Escale Polaire [*De regione* Spitsberg *ac statione polo proxima*]. Impr. Lecerf. Paris (1936). **a - 905**

I. Géographie des côtes et de l'intérieur, flore et faune. II. Découverte, pêche, chasse, l'industrie et expéditions polaires.

**Rasmussen K.** (trad. p. **Hanse A. V.**, réd. et préf. de **Djakonov M. A.**) - La grande route au traîneau. 18 000 kilomètres à travers les régions inexplorées de l'Amérique Arctique [*De magno itinere peracto in traha per inexploratas regiones Americae arcticae km. 18.000*]. (Trad. en russe du danois). Fig., 1 carte h. t. 251 pp. Ed. Glavsevmorputj. Leningrad (1935). **a - 906**

**Richter B.** - La péninsule Tchéljouskine (Revue géographique et économique) [*De paeninsula* Tscheljuskin. *Conspectus geographico-oeconomicus*]. (En russe). 2 fig., Sov. Sever., 3/4, 121-128. Moskva (1935). **a - 907**

**Rodzevitch N. N.** - Les avions soviétiques dans l'Arctique [*De aëroplanis sovieticis ad regiones arcticas*]. (En russe). Ill. 102 + 2 pp. Glav. Red. Aviat. Lit., Leningrad-Moskva (1935). **a - 908**

**Romanov A. A.** - Description of the Map of the Lena–Khatanga District, According to the Material of the Yakutsk Expedition of the Academy of Sciences of USSR [*Mappae descriptio ad districtum* Lena-Khatanga *pertinentis ex rebus collectis per expeditionem ad* Yakutsk, *ab Academia Sovietica Scientiarum peractam*]. Mater. Study of the Arct., 3, 5-186. Arct. Inst., Leningrad (1933). **a - 909**

Historical account of the geographical investigations: I. Description of the map: 1. Basis of the map, 2. The coast of the Laptev Sea, 3. Rivers and lakes, 4. Relief. 5. Distribution of the population. 6. Transport roads. 7. Northern limit of the woods. Systematical list of geographic names. Observations to the List. I. Rivers, lakes and straits. II. Relief. III. Coast of the Laptev Sea and the islands. IV. Populated localities.

**Roslov N.** - Sur l'extrême bord de la terre [*De orbis extremo margine*]. (En russe). Khoz. Sev., 5, 18-28. Arkhangheljsk (1934). **a - 910**

La campagne du « Malyghine » dans les eaux de la Terre de François-Joseph en 1932.

**Samojlovitsch R.** - Les problèmes de l'Arctique [*Problemata ad Arctidem pertinentia*]. 4 fig., 1 tabl. Rev. Scient. LXXIII, 2, 40-49. Paris (1935). **a - 911**

Brève description du développement, de l'histoire et des progrès de l'exploration du Nord poursuivie par la Russie des Soviets. Organisation systématique et scientifique de l'exploration des régions polaires à l'aide de bases permanentes (Stations Polaires). Résultats des recherches géologiques accomplies dans les quatre zones de l'Arctique russe; programme des travaux futurs dans ce domaine. Établissement de la Route Maritime du Nord et les importants travaux hydrologiques qu'il a rendu nécessaires, avec référence spéciale au régime hydrologique des mers polaires, au relief du fond et au régime des glaces. Description de l'organisation du service météorologique de prévision et des principes qui en constituent la base. Importance des problèmes hydrologiques pour la navigation, la chasse et la pêche dans les mers polaires; signification des facteurs météorologiques et aérologiques de l'Arctique pour les latitudes plus méridionales et pour la prévision du temps.

**Samojlovitsch R.** - Quinze ans de travail scientifique dans l'Arctique [*De operibus scientificis in regionibus arcticis 15 annos susceptis*]. (En russe). Sov. Arkt. 1, 36-39. Leningrad (1935). **a - 912**

**Samojlovitsch R.** - Notre Arctique [*De Arctide quae ad nos pertinet*]. (En russe). Vokr. Svjeta, 7-1-4. Leningrad (1934). **a - 913**

**Sandström J. W.** - Kryssning med « Golfströmmen » till Nordatlantens öar [*De navigatione in navi* « Golfströmmen » *ad insulas Oceani Atlantici septentrionalis*]. Jorden runt, 68-87. Stockholm (1934). **a - 914**

**Schmidt O. J.** - Nos buts dans l'exploration de l'Arctique [*De nostris propositis in Arctide exploranda*]. (En russe). Za Osvojenije Arkt., 5–11. Leningrad (1935). **a - 915**

**Schmidt O. J.** - Exploration of the Arctic and the Soviet Union [*De Arctide atque Unione Sovietica exploratis*]. 23 pp. C. R. Dél. Sov. Congr. Int. Géogr. Varsovie; Inst. Scient. Publ. Atl. Sov. Léningrad (1934). **a - 916**

**Schnakenburg N.** - Means of Communication on Chukchee Peninsula [*De communicationibus in paeninsula* Chukchee]. (In Russ., Engl.Summ.). Arctica, III, 163-177. Leningrad (1935). **a - 917**

Having emphasized the importance of the means of communication for the economic development of the northern region of the USSR, author describes the sea-, coastal- and river-navigation of the Chukchee peninsula, as well as the ways of communication on land.

**Schokalsky** - Recent Russian Researches in the Arctic Sea and the Mountains of Central Asia [*De recentibus russicis investigationibus in mari arctico atque montibus Asiae centralis peractis*]. Scott. Geogr. Mag. Edinburgh (1936). **a - 918**

**Schybinskij V.** - Kara Trading Operation of 1933 [*Operae commerciales quae ad mare Karense pertinent*]. (In Russ., Engl. Summ.). Bull. Arct. Inst., V, 5/6, 139-141 & 176. Leningrad (1935). **a - 919**

Account of the navigation-season of 1933 which began on July 22, with the start of the ice-breaker « Lenin » from Archangel, and ended on October 30th, 1933.

**Schybinskij V.** - Kara Sea Operation in 1934 [*Navigationes ad Mare Karense A. 1934*]. (In Russ., Engl. Summ.). Bull. Arct. Inst., V, 5/6, 141-145. Leningrad (1935). **a - 920**

Account of the voyages of the Sovietice-breakers « Malyghin », « Ermak » « Sadko » and « Lütke » in the Kara Sea to the mouths of the Ob, Yenissej and Lena Rivers, as well as of the navigation of the ice-breaking cargo steamer « Russanov » during the navigation season of 1934.

**Singer M.** - On the Question of the Occupation of Eastern Greenland by Norway [*Quaestio de Groenlandia a Norvegis occupata*]. (In Russ., Engl. Summ.). Arctica, II, 199-213. Leningrad (1934). **a - 921**

Historical account of the dispute between Denmark and Norway about the sovereignty over certain territories in Eastern Greenland, followed by some considerations concerning the rights of the USSR on the territories situated in the Soviet Section of the Arctic.

**Singer M.** - La grande façade [*Enarrationes ad polum pertinentes*]. (En russe). Novyj Mir, V, 125-153. Moskva (1934). **a - 922**

Trois récits: 1. L'Ile Dickson (la vie et l'existence des hivernants à la Station Polaire de l'île); 2. Igarka (Episodes de la construction du port d'Igarka), 3. Contes des Tchouktchi (Contes et légendes des indigènes de la région Tchoukhotskaja).

**Sintzov V.** - Un jour [*Enarratio quaedam ad expeditionem navis* « Tchéljouskine » *pertinens*]. (En russe). Zvezda Sev., 5, 50-57. Arkhangheljsk (1934). **a - 923**

Récit d'un des matelots de l'équipage du brise-glace « Tchéljouskine ».

**Smesov A.** - Nomenclature et limites des mers septentrionales de l'URSS [*De nomenclatura et limitibus marium septentrionalium ad URSS pertinentium*]. (En russe). Sov. Sev. 5, 60-64. Moskva (1934). **a - 924**

**Smirnov L. P.** - Quelques nouvelles données sur la géographie et la géologie de la Péninsule de Tajmyr [*De novis datis quoad geographiam et geologiam paeninsulae* Tajmyr]. (En russe). 1 fig. Arctica, II, 73-77. USSR. Leningrad (1934). **a - 925**

En automne 1933 l'Expédition pétrolifère de Nordwick de l'Administration Centrale de la Voie Maritime du Nord a dû s'arrêter dans la baie Marie Prontschistcheva sur la rive orientale de la péninsule de Tajmyr sous 75°30′ N et 113°30′ E. Au cours de l'arrêt l'A. a pu faire quelques observations nouvelles sur la géographie et la géologie de la région qui changent foncièrement certaines idées établies à ce sujet.

**Soboleva A.** - Sur la question du réchauffement de l'Arctique [*De calore regionum arcticarum*]. (En russe). Meteorol. Vestn., 5/6, 40-43. Leningrad (1935). **a - 926**

**Sokolov M. P.** - La péninsule de Tajmyr et la Voie Maritime du Nord [*De paeninsula* Tajmyr *deque Via maritima Nordica*]. (En russe). Sev. Morsk. Putj, II, 7-39. Leningrad (1935). **a- 927**

**Solovjev M. M.** - Ber sur la Novaja Semlja [*De exploratore* Ber *in* Novaja Zemlja]. Ill. 51 pp. 3-ème Ed., Acad. Sc. URSS. Leningrad (1934). **a - 928**

**Svetakov A. V.** - Sur l'Ile Dickson (Radiogramme) [*De insula* Dickson (*Radiogramma*)]. (En russe). 3 fig. Sov. Arkt. 1, 54-56. Leningrad (1935). **a - 929**

**Tolmatchov A.** - Bureau pour l'Etude de la Région du Nord [*De quodam officio ad studendam regionem nordicam*]. Vestn. Akad. Naouk, 11/22, 81-85. Leningrad (1934). **a - 930**

Organisation et activité du Bureau du Nord de la Commission Polaire de l'Académie des Sciences de l'URSS.

**Tolmatchov A.** - Les pays polaires du Nord (l'Arctique) [*De regionibus polo nordico proximis* (*De Arctide*)]. (En russe). 1 carte, 136 pp., Sevkrajghiz, Arkhangheljsk (1935). **a - 931**

**Trolle A.** - Croisière océanographique 1934 du bateau-moteur « Thor » [*Navigatio oceanographica A. 1934, navi* « Thor » *motore praedita* *peracta*]. (En danois, rés. angl. & franç.). 22 fig., 3 pl., 3 cartes, 1 carte h. t. 198 pp., Publ. s. Groenland Orient., Levin & Munksgaard. Copenhague (1935). **a - 932**

**Victor P. E.** - Conférence du 13 Décembre 1935 (Actes de la Société de Géographie) [*Conferentia die 13 mensis Decembris A. 1935* (*Acta Societatis pro Geographia*)]. 4 fig. Géogr., Terre-Air-Mer, LXV, 4, 296-308. Paris (1936). **a - 933**

Conférence du Chef de l'Expédition Scientifique Française sur la côte Est du Groenland, 1934-1935. Différence entre la côte Est et la côte Ouest du Groenland due à l'action, d'une part, du Gulf-Stream et, de l'autre, du grand courant polaire glacial qui descend directement du Pôle Nord. Bref récit du projet de l'expédition, de son organisation et de sa préparation. Le trajet du « Pourquoi Pas ? »; le séjour au Groenland, quelques renseignements sur le climat, les conditions des glaces, les explorations accomplies par les membres de l'expédition.

**Vlasenko A. V.** - L'île Boljchoj Diomid [*De insula* Boljschoj Diomid]. (En russe, rés. angl.). Izv. Gos. Gheogr. Obstsch., (Bull. Soc. Géogr.), LXVII, 1, 132-136. Moskva-Leningrad (1935). **a - 934**

Geological, meteorological, and climatological description given for the first time of the Island Boljshoj Diomede (Ratmanoff-Islands), situated in the Bering Strait, 21 miles from Cape Dezhneff and 22 miles from Cape Prince of Wales.

**Vogel V.** - Les communications sont interrompues pendant un certain temps [*Communicationes pro tempore rescinduntur. Enarratio quae pertinet ad castra per exploratorem* Schmidt *in glacie constituta*]. (En russe). 1 fig. Vokr. Svjeta, 7, 22-23. Leningrad (1934). **a - 935**

Episode de la vie du camp de Schmidt sur la glace.

**Wiese W.** - Comparaison des prévisions hydrologiques et glaciologiques, publiées par l'Institut Hydrologique de l'État pour la saison de navigation 1933 dans les Mers de Barentz et de Kara, avec les conditions des glaces observées en réalité [*Comparatio inter prognoses hydrologicas et glaceologicas quas edidit Institutum Hydrologicum Nationale pro navigatione per maria* Barentz *et* Kara *A. 1933 et reales condiciones quae in glacie observatae sunt*]. (En russe). Izv. Gos. Ghidrol. Inst., 66, 49-52. Leningrad (1934). **a - 936**

**Wiese W.** - Zur Geschichte der frühen russischen Tätigkeit auf Spitzbergen [*Historia de activitate russica, temporibus praeteritis, in* Spitzbergen]. (In Russ., Dtsch. Rés.). Arctica, III, 157-161. Leningrad (1935). **a - 937**

Aus dem 1818 erschienenen Buche von P. Swinjin « Otetschestvennyje Zapiski » entnimmt Vf. die vorliegende Beschreibung aus der Biographie des Bildhauers Suchanov, welcher den Winter 1784-85 in der Magdalene Bucht auf Spitzbergen verbracht hat.

**Woelcken K.** - Bericht über Schalluntersuchungen im Polargebiet [*Relatio de investigationibus in undas sonoras in regione Arctica*]. (In Dtsch., Russ. Rés.). 9 Fig. Arctica, II, 3-24. Arct. Inst. USSR. Leningrad (1934). **a - 938**

Bericht über Schalluntersuchungen zur Erforschung der Stratosphäre, die während des Internationalen Polarjahres 1932/33 im Polargebiet ausgeführt worden sind. Folgende Fragen sollten mit Hilfe der Ergebnisse der Untersuchung beantwortet werden: 1) ist es möglich, mit den heutzutage vorhandenen wissenschaftlichen und technischen Mitteln Untersuchungen über die Verbreitung von Schallwellen zum Zwecke der Erforschung der Stratosphäre auszuführen ? 2) existiert abnormale Schallverbreitung während der Polarnacht ? und 3) welchen Einfluss haben die besonderen meteorologischen Verhältnisse der Arktis auf die Schallverbreitung ? Vorliegender Bericht enthält die vorläufige Bearbeitung der an drei Polarstationen ausgeführten Registrierungen.

**Yourjev B. N.** - Exploration préliminaire de la Baie Kolokolkov en Juillet 1934 [*Exploratio prior bajae* Kolokolkov *mense Julio A. 1934*]. (En russe). 3 fig., 4 tabl. Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr.) LXVII, 1, 37–53. Moskva-Leningrad (1935). **a - 939**

Bref compte rendu de l'exploration de la Baie Kolokolkov, qui se trouve dans la partie nord-ouest du littoral de Timansk, entre le cap Rousskij Zavorot et l'île Senghejskij, et dont l'embouchure a les suivantes coordonnées: 68°32'6''N., 52°12'5'' O. Historique des explorations de la baie et de la construction en 1934 d'une base sur sa rive. Description d'une expédition organisée en juin 1934 dans la baie et résumé des résultats des observations physiques et géographiques, météorologiques et climatologiques, hydrographiques et morphologiques, géologiques et hydrologiques exécutées au cours de l'expédition.

**Zvantzev A.** - Les hommes du Nord [*De exploratoribus regionum septentrionalium*]. (En russe). 3 fig. Vokr. Svjet. 7, 29-32. Leningrad (1934). **a - 940**

L'A. a passé trois hivers sur l'Ile Wrangel. Il décrit son séjour et son départ en avion vers la terre ferme.

**Central Executive Committee of the USSR.** - Decision of the.... (Concerning the Unity of Geographical Denominations of the Soviet Arctic) [*Sententia sumpta ab institutione nomine* Central Executive Committee of the USSR *de unificatione denominationum geographicarum regionum ad Arctidem Sovieticam pertinentium*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 7, 183-186, 220-222. Leningrad (1935). **a - 941**

List of the obligatory denomination of the Arctic Ocean and its parts adjacent to the territory of the USSR to be used in all scientific papers, manuals, maps, charts, etc., issued in the USSR. Determination of the limits of the above mentioned regions.

**Glavsevmorputj** édit. par... (Administration Centrale de la Voie Maritime du Nord) - La Voie Maritime du Nord. Recueil d'articles sur l'hydrographie et la navigation. II [*De via maritima nordica. Scripta collecta de hydrographia et navigatione*]. Fig. tabl., 1 carte h. t. 125 pp. Ed. Glavsevmorpoutj. Leningrad (193 ). **a - 942**

II-ème volume du recueil publié par l'Administration Centrale de la Voie Maritime du Nord, illustrant les derniers progrès accomplis dans l'exploration des régions polaires soviétiques.

**Narkomvod** (Commissariat du Peuple de la Marine) - Les transports maritimes en 1933 [*De maritimis subvectionibus A. 1933*]. (En russe). Tabl. 194 pp. Izd. Narkomvod. Moskva (1934). **a - 943**

Données statistiques - Transports des marchandises et des passagers - L'activité des ports maritimes et indices fondamentaux du travail des bâtiments de la Flotte Maritime Soviétique - Personnel et salaires.

**Trust Géologique, Hydrographique & Géodésique** - Les éditions du trust géologique, hydrographique et géodésique de la Sibérie Orientale

[*De publicationibus in lucem editis a* trust *geologico, hydrographico, et geodetico Siberiae orientalis*]. (En russe). 15 pp. Tomsk (1934). **a - 944**

**An.** - Stations polaires de l'Administration de la Voie Maritime du Nord (Glavsevmorputj) [*Stationes polo proximae quae pertinent ad Administrationem pro Via maritima Nordica*]. (En russe). Bull. Arct. Inst., V, 3/4, 78-79. Leningrad (1935). **a - 945**

Bref compte rendu des travaux exécutés par les stations de Vajgatch, Jougorskij Char, Mare-Sale, Cape Zhelanijé, Novyj Port, Ile Dickson, Ile Oujedinenijé, Cap Tchéljouskine, Baie Prontchichtcheva, Ile Vstretchnyj, Nordwick, Baie Tixi, Péninsule Kighiljakh, Iles Medvezhijé, Cap Chelagskij et Cap Navarine.

**An.** - Polar Stations [*Stationes polares*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 3/4, 90 & 119. Leningrad (1935). **a - 946**

Brief account of reconnaissances made at the Station on Calm Bay and between Cape Schmidt and Wrangel Island.

**An.** - Les Stations Polaires de la Voie Maritime du Nord [*Stationes polares quae pertinent ad Viam Maritimam Nordicam*]. (En russe et part. en angl.). Bull. Arct. Inst., V, 5/6, 136-138, 180-181. Leningrad (1935). **a - 947**

Bref compte rendu des travaux exécutés par les Stations Polaires de la Baie Tikhaja (Calm Bay), de Matotchkine Char, Mar-Esalé, Cap Zhélanijé, Ile Belyj, Ile Dickson, Ile Oujédinénijé, Cap Nordwick, Cap Chalaourov, Cap Schmidt, Ile de Vrangel, Ouélen.

**An.** - Polar Stations of the Chief Administration of the Northern Sea Route [*Stationes polares quae pertinent ad Administrationem Centralem pro Via Maritima Nordica*]. (In Russ., Engl. Summ.). Bull. Arct. Inst., V, 7, 196-197, 226-227. Leningrad (1935). **a - 948**

Brief report on the work carried out by the following Polar Stations of the USSR: Calm Bay (Tikhaja), Matotschkin Schar, Bjelyj (White) Island, Barentsburg, Dickson Island, Cape Tscheljuskin, Wrangel Island, Uelen.

**An.** - Polar Stations of the USSR [*Stationes polares ad URSS pertinentes*]. (In Russ. Engl. Summ.). Bull. Arct. Inst., V, 8, 241-242, 264-265. Leningrad (1935). **a - 949**

Brief account of the work carried out and observations made on the Polar Stations at Calm Bay (Tikhaja), Sterlegov Cape, Cape Tscheljuskin, The Komsomoljskaja Pravda Islands (former Samuel Isl.), Tixi Bay, Cape Schelagskij, Cape Schmidt, Providenije Bay.

**An.** - The Transport of Cargoes along the Northern Sea Route [*De subvectionibus Via maritima Nordica*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 9, 291, 310. Leningrad (1935). **a - 950**

Account of the accomplishment of transport of cargoes from Murmansk and Vladivostok along the Northern Sea Route.

**An.** - Polar Stations of the Glavsevmorputj (Chief Administration of the Northern Sea Route) [*Stationes polares quae pertinent ad Administrationem Centralem pro Via Maritima Nordica*]. (In Russ. & Engl.). 1 table. Bull. Arct. Inst., V, 10, 320, 354-355. Leningrad (1935). **a - 951**

Brief account of the work performed at the Polar Stations at the mouth of Tajmyr River, the Cape Olovjannyj, the Cape Tsheljuskin, the Bay Prontschistscheva, the Bay Providence (Providenjia), the Tixy Bay, the White (Bjelyj) Island, and Mostakh Island. On a table the results of aerological observations are also reported.

**An.** - Flight of V. S. Molokov, Hero of the Soviet Union [*De volatu a* V. S. Molokov *peracto*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 10, 341-342, 368. Leningrad (1935). **a - 952**

Account of the flight undertaken in order to mark the beginning of systematical air- and sea-investigation in the eastern section of the Northern Sea route. The flight lasted from July 28th to 31st, 1935; its route was from the Lena River to the Okhotsk Sea.

**An.** - Polar Stations [*Stationes polares*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 12, 436 & 463. Leningrad (1935). **a - 953**

Brief account of the activity during the end of 1935 of the Polar Stations at Little Karmakuly, on White Island, Cape Medvezhyj, Tixy Bay and Prontschistcheva Bay.

**An.** - Iles arctiques nouvelles [*Novae insulae arcticae*]. Géogr., Terre-Air-Mer, LXIV, 1, 66-67. Paris (1935). **a - 954**

Information de l'ingénieur hydrographe général, du Ministère de la Marine Française, concernant la position exacte des îles « Izvestija » et des îles « Institut Arctique », découvertes par les expéditions soviétiques de 1932 et 1933.

**An.** - La Antartida [*De Antarctide*]. 2 fig. Iberica, XLIV, 1093, 261-264. Barcelona (1935). **a - 955**

Los principales rasgos de la historia de la exploración antártica de 1821 a 1931. Expediciónes de James Cook, Bellingshausen, F. R. Scott, E. H. Shackleton, Wilson, Douglas Mawson. El actual estado de nuestros conocimientos acerca de la Antártida: Sector del mar de Ross – Sector del mar de Weddell.

**An.** - Lincoln Ellsworth's Flight Across West Antarctic [*De volatu a* Lincoln Ellsworth *peracto per Antarctidem occidentalem*]. 1 map. Geogr. Rev., XXVI, 2, 329-332. New York (1936). **a - 956**

On hand of accounts published in the « New York Times » the three flights made by Ellsworth over the Antarctic are described.

**An.** - Geographical Names. – Arctic Islands. – Noms géographiques. – Iles arctiques [*Nomina geographica. Insulae arcticae*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., 1, 7. Monaco (1936). **a - 957**

Information on the change of the name of the Samuel Islands in Islands of the Komsomolskaya Pravda.

**An.** - New Arctic Islands – Iles arctiques nouvelles [*Novae insulae arcticae*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., 3, 61-62. Monaco (1935). **a - 958**

Information on the discovery of two new Arctic islands which are in a position different from that assigned in the « Int. Hydr. Bull. » 1, 1933, according to « Terre, Air, Mer », LVIII, 1932, and which are probable those discovered by the Samoilovitsch expedition on board the « Roussanov », e. g., the Izvestija Islands and the Arctic Institute Islands.

**An.** - Antarctic Research – Exploration dans l'Antarctique [*De explorationibus in Antarctide*]. (In Engl. & French). Int. Hydrogr. Bull., 6, 122. Monaco (1935). **a - 959**

New commission of the R. R. S. « Discovery II »: the circumnavigation of the Antarctic continent in 1935–36.

**An.** - Activité de la Station Polaire de GOUSMP (Administration Centrale de la Voie Maritime du Nord) sur le Cap Dezhnev-Ouelen

[*De activitate Stationis polaris ad* GOUSMP *pertinentis in promunturio* Dezhnev-Ouelen]. (En russe). Meteor. Vestn., 3/4, 85. Leningrad (1935). **a - 960**

**An.** - Travail de la Station de la Baie de la Providence (Providenija) [*De operibus pro statione in baja Providentiae*]. (En russe). Sovj. Arkt. 2, 3-7. Leningrad (1935). **a - 961**

**An.** - Synoptique sur le Cap Schmidt [*Synopsis de promunturio* Schmidt]. (En russe). Sovj. Arkt. 2, 83-84. Leningrad (1935). **a - 962**

## Relevationes hydrographicae (geodeticae, topographicae, bathymetricae) - Instrumenta hydrographica et bathymetrica - Naves hydrographicae.

**Adams O. S. & Claire C. N.** - Manual of Transverse Computation of the Transverse Mercator Grid [*Liber manualis ad calculandas repraesentationes Mercatorianas*]. 31 figs. & tables. U. S. Dpt. Comm., Coast & Geod. Surv., Spec. Publ. 195. Washington D. C. (1935). **a - 963**

Description of the transverse Mercator projection - Method of computation of the projection: the tables, description of the computation form, description of an actual computation – computation of the grid azimuth from coordinates, computation of the grid azimuths of a transverse, sea-level reduction, approximate method, length reductions, computation of the coordinates. - Computation of transverses in the vicinity of Rochester, N. Y. - Transverses in New Jersey. - Grid lines on Geological Survey quadrangle maps. - Method of constructing the meridians and parallels on the grid projection. - Transformation of a local system of plane coordinates to grid coordinates.

**Adams O. S.** - Azimuths from Plane Coordinates [*Azimuth depromptum a planis coordinatis*] 6 figs., 14 pp. Ser. No. 584, U. S. Dept. of Commerce Coast & Geod. Surv. Washington (1936). **a - 964**

**Aquilina C.** - Mire graduate [*De apparatibus pro mensuris metis praeditis cum gradibus*]. Riv. del Catasto e dei Servizi Tecnici Erariali. II, 4, 431-438. Roma (1935). **a - 965**

Innovazioni e perfezionamenti nella costruzione delle mire graduate.

**Atumi K.** - La déviation de la verticale au Japon [*De verticalis deviatione in Japonia*]. 4 figs. & 3 tabl. Jap. Journ. Astron. & Geoph. X, 3. 305-312. Tokyo (1933). **a - 966**

**Baker E. H. B.** - Travaux de levé au Labrador pendant l'hiver [*De operibus ad relevamenta perficienda in regione Labradorica, hieme*]. 1 carte, 6 fig. h. t. Rev. Hydrogr. XIII, 1, 9-20. Monaco (1936). **a - 967**

Levé accompli par une mission de l'H. M. S. « Challenger » pendant l'hiver 32-33.

**Balakschin L. L.** - Hydrological Work Aboard the Icebreaker « Sadko » [*De operibus hydrologicis peractis in navi glaciei–ruptrici, nomine* « Sadko »]. (In Russ. & Engl.). Bull. Arct. Inst., V, 10, 329-330, 361-362. Leningrad (1935). **a - 968**

Results of the hydrological observations carried out during the expedition of the « Sadko » to high latitudes in summer 1935, the scope of which was a thorough study of the seas lying along the Northern Sea Route and in particular the study of the Northern part of the Atlantic Ocean, namely the Greenland Sea, through which the warm waters of the Atlantic penetrate in the higher latitudes of the Arctic basin. The material collected during this cruise of the « Sadko » and during other previous voyages makes it possible to draw a chart of currents of the region to the north of latitude 76°N. in the Greenland Sea and further to the East up to the coasts of Severnaja Zemlja and to solve a number of questions connected with the study of the hydrological régime of the seas the Northern Sea Route passes through.

**Balen Garcia F.** - La rastra hidrografica [*Machina hydrographica everriculo praedita*]. Rev. Gen. de Marina. Nov. 721-737. Madrid (1935). **a - 969**

**Boaga G.** - Schema di compensazione di rilievi topografici eseguiti con sole misure lineari [*Ratio pro compensationibus in relevamentis topographicis ducendis mensurarum linearium tantum auxilio*]. Riv. del Catasto e dei Servizi Tecnici Erariali, II, 4, 422-430. Roma (1935). **a- 970**

Si dimostra che nei rilievi topografici eseguiti con sole misure lineari esiste un sicuro riscontro delle misure e che quindi si può contare sulla compensazione dei risultati. Si stabiliscono per alcune figure geometriche diversi tipi di formule atte al calcolo di tali compensazioni.

**Boaga G.** - Su alcune formule di geodesia ellissoidica [*De quibusdam formulis pro geodesia ellipsoidica*]. Ist. Sup. Ingegneria, Ist. Geod. e Topogr. Padova (1936). **a - 971**

**Brunner F.** - Las fotografias aéreas y su aplicación en el levantamiento de la Carta [*De photographia aërea eiusque applicatione in relevamenta ducenda*]. 4 fig. Mem. Techn. Ejerc. Chile, III, 13, 1613-1625. Santiago–Chile (1935). **a - 972**

1. Toma de vistas por la aviación - 2. Fijación de puntos en el terreno. - 3. Dibujo de la plancheta con cooperación del transformador; El Transformador A. T. G.; Análisis de la precisión y costo de una hoja fotogramétrica levantada por el método expuesto; La fotografia indeformable mediante el empleo del papel fotográfico correctostat; Análisis de la planimetria; Análisis de la altimetria; Costo de una hoja topográfica empleando fotografias aéreas.

**Buchholtz A.** - Au sujet d'un nouvel appareil de transformation par dessin [*Apparatus novus pro transformatione adumbrationis auxilio*]. 6 fig. Rev. Hydrogr., XIII, 1, 125-131. Monaco (1936).
( — ) Extr. de 'Bildmessung u. Luftbildwesen', 3, 141. Liebenwerda (1935). **a - 973**

**Christow W. K.** - Ueber die Transformation von Mercator–Koordinaten in konforme quer- und schiefachsige Koordinaten, und umgekehrt [*De coordinatis mercatorianis transformandis in coordinatas ortogonales et obliquas conformes et contrarie*]. Ztschr. f. Vermessungswes. 15. Mai, 289-296. Berlin (1935). **a - 974**

**Cooke, Troughton & Simms Ltd.** - L'Astrolabe à Prisme à 45° de Cooke [*De astrolabio prismatico 45° gradibus ad* Cooke *pertinente*]. 1 table Rev. Hydrogr. XII, 2, 118-121. Monaco (1935). **a - 975**

Description générale et détaillée.

**Cordero Lanza di Montezemolo** - Impiego di fotografie aeree in idrografia [*De photographiis aëriis utendis pro hydrographia*]. Riv. Maritt. suppl. tecnico al fasc. luglio–ag. 3-26. Roma (1935). **a - 976**

Premessa - Note di fotogrammetria aerea - Sistemi di impiego di fotografie aeree in uso nei diversi servizi idrografici. Considerazioni sulle possibilità attuali di impiego di fotografie aeree nel disegno della topografia nelle carte idrografiche.

**Danielsson F.** - Den fotografiska kartläggningens ställning i utlandet. Översikt och historik [*De photogrammetria in diversis Europae regionibus atque etiam in Sinis et Americanis. Conspectus et historia*]. (Dtsch. Rés). 1 Karte. Sv. Geogr. Årsb. II, 162-190. Lund (1935). **a - 977**

Diese Arbeit ist nach dem Tode des Vfs vom Prof. Per Collinder komplettiert und herausgegeben worden. Einleitende Bemerkungen über frühere Arbeiten und Methoden. Die Stellung der Photogrammetrie als Landesvermessungsmethode in Dänemark, Grossbritannien, Finnland, Frankreich, den Vereinigten Staaten, Italien, Kina, den Niederlanden, Norwegen, Polen, Russland, der Schweiz, Spanien, Deutschland, Ungarn und Oesterreich.

**De Buen F.** - Carta batimétrica al sur de la Isla de Alborán [*Charta bathymetrica partis meridionalis insulae* Alboran]. 1 carta. Bol. Soc. Geogr. Nac., LXXV, 8, 461-464. Madrid (1935). **a - 978**

Nota conteniente el estudio de los rasgos principales de la repartición batimétrica de una interesante zona, desde el punto de vista geológico, los lugaros próximos a la Isla de Alborán y el saliente costero de Cabo de Tres Forcas, en Marruecos, illustrados por la carta batimétrica de la zona. Bibliografía.

**Dore P.** - Lo stereocartografo Santoni [*De stereochartographo* Santoni]. Illustr. Riv. del Catasto e del Serv. Tecn. Erar. II, 1, 19-30. Roma (1935). **a - 979**

L'A. espone ed analizza alcune fondamentali caratteristiche dell'ultimo modello dello Stereocartografo Santoni, segnatamente ponendo in luce i dispositivi che differenziano questo dai precedenti modelli.

**Dorsey G.** - Le Fathomètre Dorsey [*De phathometro* Dorsey]. 5 fig. dont 4 h. t. Rev. Hydrogr. XII, 2, 50-53. Monaco (1935). **a - 980**

Description du modèle réglementaire employé par le Coast et Geod. Survey des Etats Unis d'Amérique, appareil qui s'est révélé précieux pour les mesures à toutes les profondeurs allant de 27 mètres à 5.500 mètres.

**Edgell J. A.** - Report of the Hydrographer of the Navy on the Surveys Carried out by H. M. Naval Surveying Service and on the Work of the Hydrographic Department for the Year 1934 [*Relatio redacta ab hydrographo Regiae Classis de relevamentis peractis ab* H. M. Naval Surveying Service *deque operibus perfectis a Sectione Hydrographica pro A. 1934*]. 3 tables. i-vii pp. H. M. Stat. Off. London (1935). **a - 981**

Brief summaries of the work performed by H. M. Naval Surveying Service and by the Hydrographic Department during 1934, including a table containing data on work of the H. M. Surveying Ships in home waters and foreign stations, important information relating to all parts of the world received from the Hydrographic Departments of other Governments, a summary of the charts, notices to mariners, books published by the Hydrographic Department during 1934, and a list of new rocks and dangers notified by Admiralty Notices to Mariners in 1934 and the preceding ten years.

**Edgell J. A.** - Notes sur les levés par dragage hydrographique [*Notae de relevamentis hydrographicis dracae auxilio*]. 10 fig. Rev. Hydrogr. XIII 1, 21-33. Monaco (1936). **a - 982**

Description de nouvelles méthodes adoptées et de l'appareillage utilisé pour sonder à la drague. (V. Hydrographie Publ. H. D. 312, Hydrogr. Dept. Admiralty, London)

**Ennis C. C.** - Use of Regional Constant Correction-factors for Reduction of Echo Soundings [*Agitur de correctionibus pro reductione echoscandaliorum*]. Proc. Fifth Pacific Sc. Congr. Victoria and Vancouver, B. C. Canada, 1933, III, 2075-2082. Toronto & London (1934). **a - 983**

**Evghenov N. I.** - Sondages dans les mers du Nord [*De scandaliis in maria septentrionalia*]. (En russe). Za Osvojenije Arkt., 117-132. Leningrad (1935). **a - 984**

**Fedorov E. K.** - Astronomical Determinations 1933 on Franz-Joseph Land [*Determinationes astronomicae pro A. 1933 in Terra Francisci Josephi*]. (In Russ., Engl. Summ). 3 figs., 1 table. Arctica, II, 89–95. Leningrad (1934). **a - 985**

Account of the main results of topographical and astronomical investigations carried out by an expedition sent out in spring 1933 by the scientific investigation station of the Arctic Institute of the USSR on Franz-Joseph Land to the eastern part of the archipelago. On hand of the new measurements the staff of the expedition corrected some part of the maps of Franz-Joseph Land, and discovered seven new islands.

**Forni G.** - La partecipazione della R. Marina alle operazioni internazionali di longitudine nei mesi di ottobre-novembre 1933 a Mogadiscio [*De Regia Classe eiusque operibus circa operationes internationales pro longitudine mensibus Octobri et Novembri A. 1933 in* Mogadiscio]. Atti Soc. It. Progr. Sc. XXIII Riun. v. II, 256-258. Roma (1935). **a - 986**

**Forni G.** - Collegamento geodetico delle isole Egee con le Cicladi [*De colligatione geodetica insularum Maris Aegaei cum Cycladibus*]. Atti Soc. It. Progresso delle Scienze XXIII Riunione, II, 276-278. Roma (1935). **a - 987**

Collegamento geodetico delle isole Cicladi con le Isole del Dodecanneso, eseguito dalla R. Marina Italiana in collaborazione con il servizio geografico e con quello idrografico della Marina Ellenica.

**Gaken N. N.** - Une nouvelle méthode de levés hivernaux dans les conditions polaires [*Ratio nova pro relevamentis hiemalibus in regionibus polaribus*]. (En russe, rés. angl.). Sev. Morsk. Poutj, I, 33-37. Leningrad (1934). **a - 988**

Compte rendu des travaux hydrographiques exécutés dans la Baie Tchaounskaja pendant l'hiver 1932-33.

**Garner C. L.** - Progress of the Geodetic Work of the Coast and Geodetic Survey During April 1934 to March 1935 [*De progressibus operum geodeticorum a* Coast and Geodetic Survey *susceptorum a mense Aprili 1934 ad Martium 1935*]. 2 figs. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., April. 25-26, 1935, I, 71-75. Washington D. C. (1935). **a - 989**

Account of the work carried out by the Survey, with particular regard to its scope, the co-operation with other organizations, the local control-surveys, the gravity-determinations, and the publication of data.

**Gherardi W. R.** - The Work of the Hydrographic Office of the United States Navy During April 1934 to April 1935 in the Field of Oceanography [*De operibus peractis ab Officio hydrographico ad Regiam Classem Americanam pertinente a mense Aprili 1934 ad Aprilem 1935 pro oceanographia*]. 9 figs., 2 tables. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 200-214. Washington D. C. (1935).

(—) See Extr. Int. Hydrogr. Bull. I, 3–4. Monaco (1936). **a - 990**

Brief summary of the activity in the field of oceanography of the U. S. Hydrographic Office, containing the following headings: U. S. Naval survey - Charts from U. S. Naval Survey - Echo (sonic) soundings obtained by U. S. Naval vessels - Oceanic depths - Unsounded areas of the North Pacific Ocean - Bathymetrical chart of the South Pacific Ocean — Current-charts - Surface-temperature charts - Mechanical extraction of oceanographic data - Dynamic oceanographic surveys - Special utilization of echo-sounding data - Magnetic charts.

**Ghernet E. S.** - Travaux hydrographiques à bord du « Sadko » [*De operibus hydrographicis in navi* « Sadko »]. (En russe). « Sadko » pod Sov. Flag. (« Sadko » sous Band. Sov.), 123-139. Glavsevmorputj, Leningrad (1935). **a - 991**

**Hunziker E.** - Réception des signaux horaires rythmés à l'aide de coïncidences [*De signalationibus horariis receptis coincidentiarum auxilio*]. 2 fig. tables. Bull. Géod. 50, 173-200. Toulouse-Paris (1936). **a - 992**

**Jackson J. E.** - Errors in Resection [*De erroribus in resectione inversa*]. 1 fig. Empire Surv. Rev. III, 18, 218-225. Colombo, Ceylan (1935). **a - 993**

**Judson L. V.** - International Standardization of Base-line Tapes and Wires [*Unificatio internationalis vittarum et filorum quibus utitur ad bases mensurandas*]. Nat. Res. Counc., Amer. Geoph. Un., Trans., 16th Ann. Meet,. Apr. 25-26, 1935, I, 71. Washington D. C. (1935). **a - 994**

Publication on the need of international standardization of invar base-line wires and tapes approved by the Director of the U. S. National Bureau of Standards.

**Kawasaki S.** - Additional Note on the Observation of Latitude at Greenwich [*Nota additicia circa observationes pro latitudine in* Greenwich]. 1 fig., 5 tables. Jap. Journ. Astron. & Geoph. XIII, I, 43-53. Tokyo (1935). **a - 995**

In a previous paper (See: M. N., 95 (1934), 33) the author made investigations on the correlation between the direction of the wind and the results of latitude observation made at Greenwich with the Cookson floating zenith telescope. The principal purpose of the present paper is to find solutions for several terms of the previously obtained equation and to disclose the cause of the greater part of the Kimura term at Greenwich by carrying out the above calculations.

**Khvostov N.** - Equipe hydrographique de l'embouchure du fleuve Kolyma [*De hydrographia ad accessum fluminis* Kolyma]. (En russe). Sev. Morsk. Poutj (Rec. Art. Hydrogr. & Navig.), I, 106-108. Leningrad (1934). **a - 996**

**Kimura H.** - Results of the International Latitude Service from 1922, 7, to 1931, 0 [*Resultatus ex operibus peractis a Servitio Internationali pro latitudinibus*]. 2 fig. on table, 165 pp., VII. Mizusawa (1935). **a - 997**

**Kimura H.** - Provisional Result of the Work of the International Latitude Service in the North Parallel + 39°8′ During the Year 1934 [*Resultatus temporarius ex operibus peractis a Servitio Internationali pro latitudinibus quoad parallelum N. 39° 8′ hieme 1934*]. Proc. Imp. Acad., 11, 135-137. Tokyo (1935). **a - 998**

The coordinates of the polar motion for the year 1934 have been found from the observations at the five well known north international stations.

**Kimura H.** - Preliminary Result of the Observations Made at Adelaide International Latitude Station During the Year 1934 [*Resultatus prior ex observationibus ductis a Statione Internationali pro latitudinibus in* Adelaide, *A. 1934*]. Proc. Imp. Acad., 11, 251-252. Tokyo (1935). **a - 999**

**Kisindo S.** - On the Correction to Depths of Sea Obtained by Echosoundings [*De correctione in mensurandis maris profunditatibus scandalio acustico*]. (In Jap.). Suiro Yôhô (Hydrogr. Bull.), 14, 469-471. Tokyo (1935). **a - 1000**

**Lambert A.** - L'opération internationale des longitudes de 1933 [*De operationibus internationalibus pro longitudinibus A. 1933*]. Bull. Géod., 48, 423-431. Toulouse-Paris (1935).

(—) V. aussi: Bull. Horaire, 87, 273, Paris (1935). **a - 1001**

**Lambert W. D.** - Geodetic Astronomy in the United States [*De astronomia geodetica in Americae Statibus Foederatis*]. Bull. Géod. 47, 371-381. Toulouse–Paris (1935). **a - 1002**

The purpose of this paper is to emphasize the interrelation between geodesy and certain phases of positional astronomy. No formulas are used.

**Lambert W. D. & Swick C. H.** - Formulas and Tables for the Computation of Geodetic Positions on the International Ellipsoid [*Formulae ac tabulae ad calculandas positiones geodeticas ellipsoidis internationalis*]. 120 pp., U. S. Dpt. of Commerce. Coast & Geod. Surv. Spec. Publ. No. 200. U. S. Govmt. Print. Off. Washington (1935). **a - 1003**

**Ljvov I. I.** - Observations hydrologiques de profondeur [*Observationes hydrologicae in stratis profundis*]. (En russe). « Sadko » pod Sov. Flag. (« Sadko » sous Band. Sov.), 43-56. Ed. Glavsevmorputj. Leningrad (1935). **a - 1004**

**Loewe F.** - Neue hydrographische Untersuchungen in Fjorden Ostgrönlands. Der tiefste Fjord der Erde [*Investigationes novae hydrographicae in fiordis Groenlandiae orientalis. De fiordo omnium peraltissimo*]. Ann. Hydrogr., LXIII, 7, 284-286. Berlin (1935). **a - 1005**

Letzte Ergebnisse der gründlichen Erforschung der Küsten Ostgrönlands mit besonderer Berücksichtigung des ausgedehntesten Fjordes der Erde, des Scoresbysundes, und des tiefsten Fjordes der Erde, des neuentdeckten Flyverfjords. Zusammenfassende Wiedergabe der Untersuchungen über die hydrographischen Verhältnisse der Fjorde, welche durch das Zusammenwirken der Bodengestaltung und der Verhältnisse längs der Aussenküste bestimmt werden.

**Loewe F.** - Hydrographische Untersuchungen in den Fjorden Westgrönlands [*Explorationes hydrographicae in fiordis Groenlandiae Occid.*]. (In Dtsch., Russ. Rés.). 2 Fig., 3 Tab., Arctica, III, 55-78. Leningrad (1935). **a - 1006**

Bericht über die Ergebnisse einiger ozeanographischen Untersuchungen, welche Vf. als landeskundiger Berater der Fanck-Universal-Grönlandexpedition im Rahmen derselben im Gebiet der grossen Eisfjorde des Umanaqbezirkes Westgrönlands (zwischen 70 und 72° n. Br.) im Sommer 1932 ausgeführt hatte. Die Messungen betreffen die Temperatur und den Salzgehalt in grösseren und kleineren Tiefenserien, sowie Sauerstoff- und Phosphatbestimmungen. Ausserdem hat Vf. Untersuchungen ausgeführt um zu bestimmen, ob es sich bei der Eisdrift um eine vorwiegende vom Wind oder von den Meeresströmungen bedingte Erscheinung handelt.

**Markin N.** - On the Exactitude of the Coordination of Soundings [*De exactitudine in scandaliis coordinandis*]. (In Russ.). Hydrogr. Ber. 2. Leningrad (1935). **a - 1007**

**Martonne (de) E.** - A propos du Congrès et de l'Exposition Internationale de Photogrammétrie [*Expositio Photogrammetrica Internationalis*]. Ann. de Géogr. 15 janv. 65-70. Paris (1935). **a - 1008**

**Matusevitsh N.** - Rectangular Coordinates and their Application in the Hydrography, Cartography and Navigation [*Coordinatae rectangulares earumque applicatio ad cartographiam, hydrographiam et navigationem*]. (In Russ.). Hydrogr. Ber. 2. Leningrad (1934). **a - 1009**

**Maximov G.** - Traité d'Hydrographie [*Tractatus de Hydrographia*]. 328 fig., 500 pp. Admin. Centr. Route Marit. du Nord. Léningrad (1935). **a - 1010**

**Maximov G.** - Sur le choix des points de repère dans la détermination des stations selon le problème de Pothenot au cours de travaux hydrographiques [*De eligendis punctis in determinandis stationibus ex problemate* Pothenot *operibus hydrographicis perdurantibus*]. (En russe). Sev. Morsk. Putj, II, 73-100. Leningrad (1935). **a - 1011**

**Maxwell P. S. E.** - Procédés modernes d'enregistrement de l'heure en usage au service hydrographique de la Marine Royale Britannique [*De modernis processibus pro registratione horarum quibus utitur Servitium hydrographicum Realis Classis Britannicae*]. 4 fig. h. t. Rev. Hydrogr. XIII, I, 34-38. Monaco (1936). **a - 1012**

**Medina M.** - Survey in Aguascalientes by Photogrammetric Methods [*Relevamenta, methodus photogrammetricae auxilio, in* Aguascalientes (*in Mexico*)]. 2 figs., 1 table. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 67-70. Washington D. C. (1935). **a - 1013**

Description in a brief form of the photogrammetric operations carried out in the State of Aguascalientes, which constitutes the first application that has been made in Mexico of terrestrial photogrammetry for putting contour lines on geographic maps.

**Miyadi M.** - On the Variation of Longitude [*De variatione longitudinis*]. (In Jap.). Astron. Observ. Rep., 2, 177-184; Mem. Astron. Soc. Jap., III, 191-198. Tokyo (1934). **a - 1014**

The wireless time signals received at Tokyo, Washington, and various places in Europe during 1929-31, were analysed for the effect of motion of the terrestrial pole, and the result was compared with the variation of longitude calculated from the results of the international latitude observations. The observed variation has in general greater range (Author).

**Miyadi M.** - Theory of the Axis of the Transit Instrument [*De axis ratione seu de apparatu transitibus praedito*]. (In Jap.). Astron. Observ. Rep., 2, 208-215; Mem. Astron. Soc. Jap., III, 266-273. Tokyo (1934). **a - 1015**

The irregularity of the pivots of the transit instrument being expressed by a Fourier series, the author has shown that its effect on the time observation may be expressed by the formula supposing the V's angle is 45° as usual

$$\Delta\alpha_\delta = \sec\delta\,(A\cos 2\zeta\sin\zeta + B\sin 4\zeta\cos\zeta + C\sin 4\zeta\cos 2\zeta)$$

in which $\delta$ is the declination of the observed star and $\zeta$ is its zenith distance. The coefficient B is a constant depending on the variation of the level reading, while A is independent of it, and C depends on the eccentricities of the pivots (Author).

**Miyadi M.** - The Meaning of $\Delta\alpha_\delta$ of the Time Observation in the Tokyo Astronomical Observatory [*De significatione formulae* $\Delta\alpha_\delta$ *quoad temporis observationem in Observatorio Astronomico* Tokio *constituto*]. (In Jap.). Astron. Observ. Rep., 2, 216-222; Mem. Astron. Soc. Jap., III, 274-280. Tokyo (1934). **a - 1016**

The error $\Delta\alpha_\delta$, statistically detected by Mr. R. Mizuno in the time observation of the Tokyo Astronomical Observatory is discussed, and it is shown that it may be due to the irregularity of the pivots of the transit instrument. The author obtained in fact the equation

$$\Delta\alpha_\delta = \sec\delta\,(-0^s.066\cos 2\zeta\sin\zeta - 0^s.007\sin 4\zeta\cos 2\zeta)$$

from the results of observations during 1927, 1931 and 1932, the mean error of the equation being $-0^s.007\sec\delta$. (Author).

**Niino H.** - On the Soundings from the Banks between the Oga Peninsula and Sado Island, in the Northeastern Part of the Japan Sea [*De scandaliis in vada inter pœninsulam* Oga *et insulam* Sado *in regione nordoccidentali Maris Japonici*]. 4 figs., 9 tables, 4 pls. Journ. Imp. Fish. Inst., XXXI, 1, 11-33. Tôkyô (1935). **a - 1017**

1. Introduction - 2. General features of the Banks, Islands and the Continental Shelf along the Mainland of Japan - 3. The bottom character protracted from Chart n° 145 - 4. Soundings from the banks and their environs - 5. Summary and conclusions.

**Nörlund N. E. & Spender M.** - Some Methods and Procedures Developed during Recent Expeditionary Surveys in South-East Greenland [*Rationes recentiores pro relevamentis topographicis novissimis expeditionibus perdurantibus in Groenlandiam sudorientalem*]. Geogr. Journ., LXXXVI, 4. London (1935).

( — ) Rev. Hydrogr., XIII, 1, 8, 90. Monaco (1936). **a - 1018**

**Ogilvie N. J.** - The Georgian Bay Section of Ontario Triangulation [*De operibus peractis a* Georgian Bay Section *quoad triangulationes lacus* Ontario]. 3 figs., Nat. Res. Counc., Amer.

Geoph. Un., Trans., 16th Ann. Meet., Apr., 25-26, 1935, I, 63-67. Washington D. C. (1935). **a - 1019**

Description of the work needed for the completion, in 1934, of the Georgian Bay Section of Ontario triangulation, which resulted in the closure of a loop having an axial length of about 800 miles. It consists of an arc of triangulation extending eastward from the north end of the Georgian Bay, through the Sudbury mining district and along the Ottawa river as far as Ottawa. From Ottawa, it is composed of part of the Southeastern and Southwestern Ontario net, extending southerly to the St. Lawrence, thence westerly along Lake Ontario and Lake Erie, thence northerly as far as Georgian Bay. The method and the circumstances of the triangulation are dealt with.

**Orlovskij P. V.** - Travaux hydrographiques en 1935 [*De operibus hydrographicis peractis A. 1935*]. (En russe). 1 photo. Sovj. Arkt., 2. 14-20. Leningrad (1935). **a - 1020**

**Orlovskij P. V.** - Travaux hydrographiques dans le Nord [*De operibus hydrographicis in regionibus septentrionalibus*]. (En russe). Za Osvojenije Arkt., 103-115. Leningrad (1935). **a - 1021**

**Paroli A.** - Sul calcolo numerico delle coordinate geodetiche rettangolari [*De calculo numerico coordinatarum geodeticarum rectangularium*]. R. Ist. Lomb. Sc. e Lett. Rendiconti, s. II, v. LXVIII, fasc. VI-X, 411-424. Milano (1935). **a - 1022**

**Patton R. A.** - Proposal for a Bathymetric Chart of the North Atlantic Ocean [*Ratio proponitur cuiusdam tabulae bathymetricae regionis Nordatlanticae*]. Nat. Res. Counc., Trans. Amer. Geoph. Un., 16th Ann. Meet., Apr. 25-26, 1935, Append. B, I, 14-16. Washington D. C. (1935). **a - 1023**

Author discusses the value and desiderability of a better bathymetric chart of the North Atlantic Ocean, considering this project in terms of the following five consecutive steps: 1) the determination of its feasibility, 2) organization of the effort, 3) collection of the data required, 4) study and analysis of the data, 5) publication.

**Perrier G.** - Travaux de l'Association Internationale de Géodésie [*De operibus peractis ab Associatione Internationali pro Geodesia*]. Cartes & ill., XI, 2 & 3. Paris (1934). **a - 1024**

Rapports Nationaux sur les Travaux Exécutés dans les différents Pays établis à l'occasion de la Cinquième Assemblée Générale - Lisbonne, 14-25 septembre 1933.

Fascicule 2:

Egypt: Summary of the Progress of Geodesy in Egypt 1930-1933.

Espagne: Rapports sur les travaux géodésiques exécutés par l'Institut Géographique Cadastral et de Statistique de 1930 à 1933.

U. S. A.: Geodetic Operations in the United States 1930-1932.

France: Service Géographique de l'Armée. Travaux Géodésiques exécutés de 1930 à 1933.

Madagascar: Travaux Géodésiques exécutés par le Service Géographique de Madagascar du 1er janvier 1927 au 1er janvier 1933.

India: Report on the Geodetic work of the Survey of India for the period 1930-33.

Netherlands East Indies: Geodetic and Astronomical operations in the Netherlands East Indies from January 1, 1930 until October 1, 1933.

Portugal: Instituto Geografico e Cadastral. Rapport sur les Travaux Géodésiques exécutés de 1930 à 1933.

Romania: Institut Géographique Militaire. Rapport sur les Travaux Géodésiques exécutés en Roumanie de 1930 à 1933.

Tchécoslovaquie: Rapport de la Commission Géodésique et Géophysique Tchécoslovaque.

Yougoslavie: Les Travaux de l'Institut Géographique Militaire du Royaume de Yougoslavie du 1er Janvier 1930 au 1er Janvier 1933.

Fascicule 3:

Argentina: Compte Rendu des Travaux Géodésiques et Astronomiques effectués dans la République Argentine de Juillet 1930 à Juin 1933.

Belgique - Congo Belge: Rapport sur les travaux exécutés en Belgique et au Congo Belge au cours des Années 1930, 1931, 1932.

Chile: Informe que presenta el Instituto Geografico Militar con motivo de la V Asamblea de la Asociacion Internacional de Geodesia de la Unione Geodesica y Geofisica Internacional Celebrada en Lisboa en Septiembre de 1933.

Finland: Geodetic operations in Finland in the years 1930-1932.

France: Rapport sur les travaux du service du nivellement général de la France en 1930, 1931 et 1932.

Hongrie: Les Travaux de l'Institut Géodésique de Hongrie depuis 1930 jusqu'à la fin de 1932. — Rapport sur les Travaux Géodésiques exécutés de 1930 à 1932 par le Bureau des Triangulations du Service Général du Cadastre Hongrois. — Travaux de l'Institut Géophysique Baron Roland Eötvös par le Directeur Désiré Pakar.

Japan: Reports presented by the National Committee for Geodesy and Geophysics. Report n° 2 Presented by The National Committee for Geodesy and Geophysics.

South Africa: Report of the Geodetic Work of the Trigonometrical Survey on the Union of South Africa from January, 1930, to January, 1933.

**Perrier G.** - La 8me Conférence de la Commission Géodésique Baltique. Tallin et Tartu, 20-23 août 1935 [*De VIIIa conferentia,* Tallin *et* Tartu *habita a Commissione Geodetica Baltica. 20-23 Augusti 1935*]. Bull. Géod., 48, 463. Toulouse-Paris (1935). **a - 1025**

**Poncelet L.** - Technique des sondages à deux théodolites [*Scandaliorum technica duobus theodolitibus*]. 4 fig., 59 pp. Comm. Belge Année Pol., 1932-33, Rapp. Bruxelles (1934). **a - 1026**

**Rust H.** - Mehrfach-Reflexionen beim Echoloten auf weichem Grund [*De repercussionibus in echoscandaliis cum fundus marinus mollis est*]. 4 Fig., Naturwiss. XXIII, 4, 387-389. Berlin (1935). **a - 1027**

Nach einer kurzen Beschreibung des Radiolots wird das Zustandekommen von Mehrfachreflexionen erörtert, wobei sowohl elektrische und akustische Störungen als die hohe Bestriebsfrequenz als Ursachen ausgeschieden werden. Es wird auf die Bedeutung des hohen empfindlichen piezo-elektrischen Dreischichtenträgers und des Anzeigeorgans hingewiesen. Vier Beispiele von Echo Anzeigen bei verschiedenen Meeresböden.

**Salistschev K.** - Travaux géodésiques de l'Institut Arctique en 1935 [*De operibus geodeticis ab Instituto Arctico peractis A. 1935*]. Bull. Arct. Inst., V, 5/6, 130-132. Leningrad (1935). **a - 1028**

Bref compte rendu des levés exécutés par les équipes de l'Institut Arctique sur la Péninsule de Tajmyr, dans la région Léna-Khatanga, et dans la région de Tchoukhotsk.

**Samojlovitsch G. G.** - Essai de déchiffrement du relief d'après les photographies aériennes [*De relevamentis determinandis per photographias aereas*]. (En russe). 6 fig., Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr.), LXVII, 2. 244-251. Moskva-Leningrad (1935). **a - 1029**

Brève description des levés exécutés dans la Sibérie Orientale, à l'aide de photographies aériennes, contenant des indications sur l'utilisation de ces photographies pour le traçage d'une carte du relief de la région survolée. Les données se rapportent à une région continentale montagneuse, mais peuvent être aussi utiles pour l'élaboration des cartes océanographiques.

**Schive J.** - Laplace-Azimuth on High Latitudes. [*De azimuth laplaciano, altis latitudinibus*]. 1 fig., Bull. Géod., 48, 432-434. Toulouse- Paris (1935). **a - 1030**

**Schreiber E.** - Praktische Verwendung des Schalles zur Messung der Meerestiefe [*De practica soni applicatione ad maris profunditates mensurandas*]. Hansa, 18. Hamburg (1936). **a - 1031**

**Schulz B.** - Die hydrographische Lage im Kattegat im August 1931 [*De hydrographicis condicionibus in* Kattegat, *mense Augusto 1931*]. 2 Tabellentaf., 6 Taf. a. T. mit 25 Abb. Ann. d. Hydrogr., LXIV, 6, 234-242. Berlin (1936). **a - 1032**

Erweiterte Wiedergabe eines am 6. VI. 1934 auf einer hydrographischen Sondersitzung der Internationalen Kommission für Meeresforschung in Kopenhagen gegebenen Berichtes (Rapp. Proc.-Verb. LXXXIX, p. 38. Copenhague 1934).

Kurzer Ueberblick über die meteorologischen Verhältnisse vom 6. bis 21. VIII. Hydrographische Verhältnisse: Querschnitte durch das nördliche, mittlere und südliche Kattegat, das westliche Arkona-Becken; Längsschnitte Kattegatt- Sund, Grosser Belt - Fehmarn - Belt - Kadet - Rinne, den kleinen Belt.

**Schwidefsky K.** - Fortschritte der Photogrammetrie in den letzen Jahren [*De progressibus in photogrammetriam, proximis annis*]. Abb., 39 S. K. Wittner. Stuttgart (1935). **a - 1033**

**Siadbey V. G.** - L'erreur de collimation dans les petits instruments méridiens [*De collimationis erroribus in parvis instrumentis meridianis*]. Ann. Scient. Univ. Jassy, XX, 5-9. Jassy (1935). **a - 1034**

**Sidorov K. V.** - The Topographical Knowledge of the Soviet Arctic [*Cognitio topographica regionis Arcticae Sovieticae*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 7, 191-192, 225. Leningrad (1935). **a - 1035**

A brief summary of the contents of the book of reference which will be issued by the Cartographic-Geodetical Section of the Arctic Institute in order to present available information on all topographic work carried out up to day. The first part of the work has already been published: it contains a map of the Soviet Arctic on the scale 1 : 2 500 000 and 1 : 10 000 000, and a brief review of the work of more than 120 Russian expeditions, during the period from 1760 to 1934.

**Simmons L. G.** - De quelques utiles tours de main en faisant une reconnaissance [*Notiones et praecepta in relevamentis agendis*]. 3 fig. Rev. Hydrogr., XIII, 1, 146-149. Monaco (1936). **a - 1036**

**Smith A. Jr.** - Recent Acoustic Work of the U. S. Coast & Geodetic Survey [*De operibus acusticis peractis ab* U. S. Coast & Geodetic Survey]. 8 fig. & 1 table. Field Engrs., Bull. No. 8, Dec., U. S. Coast & Geod. Surv. Washington (1934). **a - 1037**

**Smith P. A.** - The Accuracy of Soundings and Positions Obtained by Methods Used in the United States Coast and Geodetic Survey [*De cura scandaliorum et positionum ex methodibus quibus utitur* U. S. Coast and Geodetic Survey]. 5 figs., Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, Append., A, 1, 9-14. Washington D. C. (1935). **a - 1038**

This paper has been prepared in answer to repeated inquiries as to the accuracy of soundings, that is, the probable errors of soundings both in depth and in position. In order that the soundings of various hydrographic surveys may be interpreted with complete understanding of their weights, a brief description of the methods used in making such surveys by the Coast and Geodetic Survey is given and their limit of accuracy determined.

**Solaini L.** - Studio di alcuni strumenti topografici moderni [*De quibusdam instrumentis topographicis modernis*]. 7 fig., Riv. Catasto e Servizi Tecnici Erariali, III, 3, 232-255. Roma (1936). **a - 1039**

Risultati conseguiti presso l'Ist. di Topogr. e Geod. del Politecnico di Milano nello studio di strumenti topografici allo scopo di stabilire la precisione intrinseca degli strumenti stessi. Tacheometri e livelli.

**Stakheev V. I.** - Topographical and Astronomical Work of the Expedition of the Arctic Institute to the Anui River in 1933-1934 [*De operibus topographicis atque astronomicis peractis perdurante navigatione ad flumen* Anui *ab Instituto Arctico, A. 1933-34 suscepta*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 8, 249-250, 268-269. Leningrad (1935). **a - 1040**

Brief account of the work performed by the expedition sent out for the exploration of the little-known area, delimited in the west by the Kolyma River, in the south by the Anui River, in the east by the Chaun River and in the north by the Arctic Ocean, during its first year of activity.

**Stocks T.** - Die Fortschritte in der Erforschung der Tiefenverhältnisse des Atlantischen Ozeans 1854-1934 [*Investigationes in Oceani Atlantici profunditates earumque progressus*]. Geogr. Ztschr. 5. Leipzig (1935). **a - 1041**

**Stocks T.** - Erkundungen über Art und Schichtung des Meeresbodens mit Hilfe von Hochfrequenz-Echoloten [*De natura atque stratificatione fundi marini perpensis scandalii acustici alta frequentia auxilio*]. Naturwiss. 24. 383-387. Berlin (1935). **a - 1042**

**Strand E. & Ozolinš** - Hydrographische Untersuchungen der Hydrobiologischen Station im Rigaer Meerbusen und im Baltischen Meere. [*Investigationes hydrographicae a Statione hydrobiologica peractae in Sinu Cylipeno et Mari Baltico*]. (In Dtsch. u. Lett.). 1 Tab. Fol. Zool. et Hydrobiol., VIII, 2, 288-290. Riga (1935). **a - 1043**

Die Angaben beziehen sich auf die zweite Hälfte des Jahres 1934: Datum, Breite, Länge, Temperatur, S ‰.

**Swainson O. W., Mc Ilwraith G., Dyk K.** - The Velocity and Ray Paths of Sound Waves in Deep Sea Water [*De velocitate et directione undarum sonorarum in aquam marinam peraltam*]. Ills. U. S. Coast & Geod. Surv. Washington (1934). **a - 1044**

**Tschirikhin J.** - Matériaux pour les sondages entre les fleuves Lena et Kolyma (pour le bateaux de cabotage) [*Res collectae ad scandalia*

*ducenda inter flumen* Lena *et flumen* Kolyma]. (En russe). 36 pp. Ed. Glavsevmorpoutj (Admin. Centr. Voie Marit. Nord). Leningrad (1935). **a - 1045**

**Tschirikhin J.** - Conditions de nos connaissances de la Mer des Laptev et de la Mer Sibérienne Orientale au point de vue hydrographique, au commencement de 1935 [*Quae nobis cognitae erant circa Mare* Laptev *et Mare Siberianum orientale ex hydrographica scientia ineunte Anno 1935*]. (En russe). Sev. Morsk. Putj, II, 59-73. Leningrad (1935). **a - 1046**

**Tschirikhin J.** - Utilisation du poisson-sonde pour l'obtention d'échantillons du terrain du fond pendant la mesure des profondeurs [*Quo modo apparatu nomine pisce-scandalio utitur ad obtinenda terreni specimina pro altitudinum mensuris*]. (En russe). Sev. Morsk. Putj, II, 119. Leningrad (1935). **a - 1047**

**Tschirikhin J.** - Results of the Work Carried Out by the Aero-Photo-Survey Expedition of the Central Hydrographical Department of GUSMP (Chief Administration of the Northern Sea Route) [*Resultatus obtenti ex operibus peractis ad relevamenta aërophotometrica ducenda a Sectione Hydrographica Centrali quae pertinet ad Centralem Administrationem pro Via Maritima Nordica*]. (In Russ., Engl. Summ.). Bull. Arct. Inst., VI, 1, 24-25, 50-51. Leningrad (1936). **a - 1048**

Results of an aero-photometrical survey of the Lena River district from Jakutsk to Zhigansk showing the advantages of this method of survey; experiments have also been made in order to establish the possibility of surveying with the same method the submarine relief.

**Tuzi K.** - On the Figure of the Pivot of the Repsold Transit Instrument (Preliminary Report) [*Agitur de apparatu oculari* Repsold, *transitibus praedito, quoad formam eius fulcri*]. (In Jap). Astron. Observ. Rep., 2, 166-171; Mem. Astron. Soc. Jap., III, 180-185. Tokyo (1934). **a - 1049**

The pivot of the Repsold transit instrument of the Tokyo Astronomical observatory was examined by a hanging level, and an irregularity of the figure was determined, of which maximum amplitude is $0^{s}.02$. (Author).

**Tuzi K.** - On the Accuracy of the Longitude and Latitude Determinations at the Field [*De cura circa determinationes longitudinis et latitudinis in campo peractas*]. (In Jap.). Astron. Observ. Rep., 2, 191-200; Mem. Astron. Soc. Jap., III, 249-258. Tokyo (1934). **a - 1050**

As an example of the field observation, the author has taken his own observation of the longitude and latitude carried out at Kosagawa in 1934. The accuracy of the time observation by a transit instrument, the error of the accepted time of the wireless signal, the bisection error in the latitude observation by Talcott's method, etc. are discussed. (Author).

**Uda H.** - Hydrographical Studies Based on Simultaneous Oceanographical Surveys Made in the Japan Sea and in Its Adjacent Waters during May and June, 1932 [*Studia hydrographica in Japonia peracta et maribus propinquis a mense Majo ad Junium 1932*]. 13 Tab., 36 figs. Rec. Oceanogr. Works in Japan, VI (1934), 20-107. Tokyo (1936). **a - 1051**

**Vallaux C.** - Les sondages acoustiques en mer profonde [*De scandaliis acusticis in mare profundum*]. 6 fig. Rev. Marit., Nouv. sér., No. 184, 433-463. Paris (1935). **a - 1052**

**Vanssay (de) P.** - Carte générale bathymétrique des océans [*Tabula generalis bathymetrica oceanorum*]. C. R. Acad. Sc., CCI, 16, 631-632. Paris (1936). **a - 1053**

Brève information sur la publication par le Bureau Hydrographique International d'une troisième édition de la « Carte bathymétrique des Océans » dont les deux premières éditions ont été publiées par l'ordre de S. A. S. le Prince Albert I de Monaco; quelques précisions sur les principales caractéristiques de la nouvelle édition.

**Vasiljev B.** - Practical Remarks on the Application of the goniometrical Net in Soundings [*Observationes practicae quoad applicationem cuiusdam retis goniometricae ad scandalia*]. (In Russ.). Hydrogr. Ber., 3. Leningrad (1934). **a - 1054**

**Vignal J.** - Evaluation de la précision d'une méthode de nivellement [*Aestimatio exactitudinis cuiusdam rationis pro libellatione*]. Assoc. Géod. Un. Géod. & Géoph. Int., Bull. Géod., 49, 1-159. Toulouse-Paris (1936). **a - 1055**

Avant-Propos. - I. Position du problème. - II. Notations. - III. Erreur probable accidentelle, non expurgée de l'influence des erreurs systématiques. - IV. Hypothèse de M. Lallemand sur la nature des erreurs affectant les nivellements. - V. Evaluation directe de l'erreur probable systématique à partir des diagrammes des discordances cumulées. - VI. Erreur probable accidentelle expurgée de l'influence des erreurs systématiques. - VII. Formules de M. M. Lallemand et Rune pour l'évaluation de la précision d'une méthode de nivellement. - VIII. Hypothèses nouvelles sur la nature des erreurs affectant les nivellements. - IX. Formules nouvelles d'évaluation de la précision d'une méthode de nivellement. - X. Définition nouvelle des nivellements de haute précision et de précision. - XI. Projet de modification des résolutions internationales relatives aux nivellements de haute précision. - Conclusions.

**Vorobjov V. I.** - Matériaux sur les sondages dans la Baie Tazovskaja [*De scandaliis in baja* Tazovskaja]. (En russe). 6 tab., 1 diagr. h. t., 58 pp., Po Rabot. Zapadno-Sibirsk. Oupr. Ghidrogr. Slouzhby, Inst. Arct. Leningrad (1934). **a - 1056**

**Wedemeyer A.** - Winkeltreue Kartennetze und Abbildungen [*Retia pro tabulis et figuris similibus*]. Ztschr. f. Vermessungswes., 1. Mai, 267-273. Berlin (1935). **a - 1057**

**Wiese W.** - Tiefseestationen [*De profunditatibus maris. Observationes*]. Tab., 11 Fig. Trans. Arct. Inst., XXIX, 25-39. Leningrad (1935). **a - 1058**

Beobachtungen von 21 Tiefseestationen im Tschuktschenmeer, im Gebiet zwischen der Kolyma-Mündung und den Bären-Inseln im Ostsibirischen Meer, zwischen den Bären-Inseln und den Neusibirischen Inseln. Angabe von Tiefe, Temperatur, Salzgehalt und Sauerstoffgehalt.

**Wood W. A.** - The Wood Yukon Expedition of 1935. An Experiment in Photographic Mapping [*De navigatione A. 1935 ad insulam* Wood

*in* Yukon. *Experimentum ad relevamenta carthographica aërea ducenda*]. 22 figs. Geogr. Rev., XXVI, 2, 228-246. New York (1936). **a - 1059**

Account of the Wood Yukon expedition of 1935 whose purpose was to carry out a piece of research in photographic mapping. The area selected was in southwestern Yukon territory, and it was chosen because of its mountainous character, ideal for the type of survey to be used; for its proximity of well established control points - those of the International Boundary Commission's Survey - for its relative accessibility, and because it was an unmapped country.

**Zagroubskij N.** - Levés exécutés sur la Terre de François-Joseph en 1932-1934 [*Relevamenta peracta in Terra Francisci Josephi A. 1932-34*]. (En russe). 1 fig. Zap. po Ghidrogr. (Bull. Hydrogr.), 2, 35-42. Leningrad (1935). **a - 1060**

**Znamenskij K.** - Measuring of Distances on the Water by means of a Wire [*De mensuris in mari per filum actis*]. (In Russ.). Hydrogr. Ber., 2. Leningrad (1934). **a - 1061**

**Arctic Institute** - Lotungen ausgeführt von der « Lütke » - Expedition im Ost-Sibirischen Meer und im Laptev-Meere - Bojen ausgesetzt von der « Lütke » - Expedition 1934 [*De scandaliis peractis ab expeditione navis* « Lütke » *in mare Siberianum orientalem et mare* Laptev. *Signa fluctuantia in mare iacta ab expeditione navis* « Lütke », *A. 1934*]. (In Russ. & Dtsch.). 2 Tab. Trans. Arct. Inst., XXIX, Scient. Res. Exped. Icebr. « Lütke », 1934, 53-55. Leningrad (1935). **a - 1062**

**Bureau Hydrographique International** - Carte générale bathymétrique des océans. Feuille $A_1$, Océan Atlantique Nord. 1 : 10 mill. [*Tabula generalis bathymetrica Oceanorum. Folium* $A_1$. *Oceanus Atlanticus Nordicus*]. 7 pp. Monaco (1935). **a - 1063**

Voir récension par G. Schott dans: Ann. d. Hydrogr. 2, 65-68. Berlin (1936).

**Bureau Hydrographique International** - Le Navire Hydrographe Danois « Hejmdal » [*Navis hydrographica Danica nomine* « Hejmdal »]. 2 fig., h. t. Rev. Hydrogr., XII, 2, 10. Monaco (1935). **a - 1064**

Brève description.

**Bureau Hydrographique International** - Sondages hydrographiques de précision effectués avec le sondeur par chocs, système Marti [*De scandaliis hydrographicis accuratissimis per echoscandalium peractis e systemate* Marti]. 11 fig. Rev. Hydrogr., XII, 2, 54-62. Monaco (1935). **a - 1065**

Nouveaux détails des sondeurs Marti à l'aide desquels vient d'être augmentée la précision des résultats fournis par ces appareils.

**Deutsche Seewarte** - Teilnahme der Deutschen Seewarte an der Internationalen Längenvermessung 1933 [*Contributio in mensurationes internationales longitudinum ab institutione* Deutsche Seewarte *relata*]. Zahlr. Tab., 10 Fig. Aus d. Arch. Dtsch. Seew. (Astron. Gruppe), LIV, 5, 1-74. Hamburg (1936). **a - 1066**

Die Zeitbestimmungen. Die Zeitbewahrung. Die Signalaufnahmen. Die endgültigen Verbesserungen der aufgenommenen Funkzeitsignale.

**Hydrografischen Dienst** - Dieptekaart van O. I. Archipel. Schaal 1 : 5 000 000 [*Tabula profunditatum in archipelago Indiae Orientalis. Modulus 1 : 5.000.000*]. Snellius - exped.; II, part 2, ch. 2. 's-Gravenhage (1934). **a - 1067**

**Hydrographer of the Navy** - Report by the Hydrographer of the Navy on the Surveys Carried out by H. M. Surveying Service and on the Work of the Hydrographic Department for the Year 1935 [*Relatio ab hydrographo Regiae Classis redacta de relevamentis peractis a* Surveying Service *deque operibus quae peractae sunt a Sectione pro Hydrographia, A. 1935*]. 3 tabl. H. D. 325, i + vii, pp. Hydrogr. Dpt. London (1936). **a - 1068**

Brief summaries of the work performed by H. M. Naval Surveying Service and by the Hydrographic Department, which has been chiefly concerned by coastline surveys and soundings of area in home waters and foreign stations. An account is also given of work received from sources others than H.M. Surveying Ships, as well as a summary of charts, Notices to Mariners and books published by the Hydrographic Department, and new rocks and dangers notified by Admiralty Notices to Mariners in 1935 and during the preceding ten years.

**Hydrographic Department, Admiralty, London** - List of Oceanic Depths Received at the Admiralty During the Year 1935 [*Elenchus oceani profunditatum ad Classis Praefecturam relatus, A. 1935*]. Hydrogr. Dpt. Publ., 324, 1-14. London (1936). **a - 1069**

List of results of echo soundings in the North and South Atlantic, in the Mediterranean, in the Red Sea, in the North and South Indian Ocean, in the North and South Pacific, and in the Southern Ocean, containing data on latitude, longitude, depth in fathoms, nature of bottom, surface and bottom temperatures.

**Hydrographic Offices - Services Hydrographiques** - Work Carried Out - Travaux exécutés [*De operibus peractis*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 66-75. Monaco (1935). **a - 1070**

Japan: A) Surveys made during the period: 1st April 1934 to 31st March 1935; B) Charts or diagrams published, C) Books or publications issued. Work projected: Survey projected during period: 1st April 1935 to 31st March 1936.

Great Britain: Extract from the Report of the Hydrographer of the British Navy for the year 1934. Surveys made during the period: 1934.

**Istituto Idrografico di Genova** - Annali Idrografici [*Annales Hydrographici*]. Genova (1936). **a - 1071**

Volta L.: Differenze delle Longitudini radiotelegrafiche: Genova, Milano, Padova e Napoli nel 1922.

Romagna Manoia G.: Determinazioni astronomiche e geodetiche nel Mare Egeo nel 1924 e in Libia nel 1925.

Forni G.: Partecipazione della R. Marina Italiana alle operazioni internazionali di misure di longitudine in ottobre e novembre 1926. Mogadiscio.

Gherzi E.: Piccolo Atlante dei tifoni dei Mari della Cina.

Forni G.: Lo sviluppo conico conforme di Lambert come proiezione di lavoro per il rilievo idrografico della Sirte.

Vercelli F.: Nuove ricerche sulle correnti marine nel Mar Rosso (1928).

**Service Hydrographique de la Marine** - Recherches hydrographiques sur le régime des côtes [*Investigationes hydrographicae in litorum regimen*]. Ill., 206 pp., XXIII. Paris (1934). a - 1072

**J. D. N.** - Embarcations pour l'Hydrographie (suite) [*De naviculis ad investigationes hydrographicas idoneis*]. 1 fig. h. t. Rev. Hydrogr., XII, 2, 11. Monaco (1935). a - 1073

Plan de l'embarcation danoise la plus récente.

**An.** - Recherches hydrographiques sur les régimes des côtes (N° 24) 1926-28 [*Investigationes hydrographicae in litorum regimen*]. Ill., 291 pp. Impr. Nationale. Paris (1935). a - 1074

**An.** - Commission 9: Triangulations [*De operibus peractis a IX<sup>a</sup> Commissione pro triangulationibus*]. Bull. Géod., XLV, Janv.-Mars, 74-170. Toulouse, Paris (1935). a - 1075

Travaux de la Commission. Annexes.

**An.** - Commission 10: Nivellements de précision [*De operibus peractis a X<sup>a</sup> Commissione pro libellationibus*]. Bull. Géod., XLV, Janv.-Mars, 171-190. Toulouse, Paris (1935). a - 1076

Travaux de la Commission. Annexes.

**An.** - Commission 14: Arc de Méridien du Cap au Caire et sa jonction au réseau européen le long des côtes africaines de la Méditerranée. [*De operibus peractis a XIV<sup>a</sup> Commissione. De arcu Meridiano a Promunturio Bonae Spei ad urbem* Cairo *eiusque coniunctione cum rete europaea praeter litora africana mediterranea*]. Bull. géod., XLV, Janv.-Mars 192-193. Toulouse, Paris (1935). a - 1077

**An.** - Commission 15: Arc de Méridien de l'Océan Glacial Arctique à la Méditerranée prolongé jusqu'en Afrique [*De operibus peractis a XV<sup>a</sup> Commissione. De arcu Meridiano ab Oceano Glaciali Arctico ad Mare Mediterraneum usque ad Africam*]. Bull. Géod., XLV, Janv.-Mars, 194-204. Toulouse, Paris (1935). a - 1078

Travaux. Annexes.

**An.** - Commission 17: Arc de Méridien traversant le Siam et les pays limitrophes et jonction de l'Archipel Malais avec l'Australie et les Philippines [*De operibus peractis a XVII<sup>a</sup> Commissione. De arcu Meridiano per Siamensem regionem regionesque propinquas eiusque coniunctione cum Archipelago insularum Malesiae, cum Australia et insulis Philippinis*]. Bull. Géod., XLV, Janv.-Mars, 206-209. Toulouse, Paris (1935). a - 1079

**An.** - Wie arbeitet das Echolot? [*Quo modo utitur scandalio sonoro*]. 2 Abb., Dtsch. Fisch.-Rundschau, 5, 97-98. Bremerhaven (1935). a - 1080

Beschreibung des Baues und der Wirkungsweise des von Dr. A. Behm erfundenen Echolots.

**An.** - Sondages dans la Mer de Kara. II<sup>ème</sup> Partie: La Mer de Kara et la Novaja Zemlja [*De scandaliis in mare* Kara. *II Pars. Mare* Kara *et* Novaja Zemlja]. (En russe). Fig., 11 cartes et tabl., h. t., 429 pp., Ed. GO OUMS RKKA & Admin. Centr. Voie Marit. Nord. Léningrad (1935). a - 1081

**An.** - Surveying Vessels - U.S.S.R. - Navires hydrographes. - U.R.S.S. [*De navibus hydrographicis ad U.R.S.S. pertinentibus*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 56. Monaco (1935). a - 1082

Extract from the « Bulletin of the Arctic Institute », n° 8-9, 1934, Leningrad, containing the information on the beginning of the construction of three ice-breakers of 3720 tons displacement to the order of the Administration of the Northern Sea Route.

**An.** - Definition of the Words « Hydrographer » and « Hydrography » - Définition des mots « Hydrographe » et « Hydrographie » [*De nominibus « Hydrographus » atque « Hydrographia ». Definitio*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 56. Monaco (1935). a - 1083

(See: « Hydrographic Review », XI, 1, 1934, pp. 8-11). Comments forwarded by J. Z. Lindquist, Hydrographer of the Norwegian Navy with reference to the Directing Committee's request on p. 11 of the above mentioned Review.

**An.** - General Bathymetric Chart of the Oceans - Carte Bathymétrique Général des Océans [*Tabula bathymetrica generalis Oceanorum*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 57. Monaco (1935). a - 1084

Information on a grant of the American Philosophical Society, Philadelphia, which enables to accelerate the preparation of the successive sheets of the General Bathymetric Chart of the Oceans. Information on the sheets to be issued.

**An.** - Materials for Hydrography of Gulf of Riga - Matériaux pour l'étude hydrographique du Golfe de Riga [*Res collectae ad studendum Sinum Cylipenum e scientia hydrographica*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 60. Monaco (1935). a - 1085

Account of a summary, compiled by Professor L. Slaucītājs on geodetic and astronomical work carried on along the Latvian coast in the Gulf of Riga, and published in a booklet entitled « Materiâli pie Rigas jûras lîca hidrografijas » (Technikas Apskats n° 6 (36), 1931. g. Riga). Some of the data contained in the booklet complete the information published in special Publication n° 24 of the International Hydrographic Bureau, List of Geographical Positions.

**An.** - Report of the Marine Department of the Chinese Maritime Customs, 1934, Shanghai, 1935 [*Relatio redacta a Sectione maritima pro Servitio portorio Sinensi. A. 1934*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., IV, 76. Monaco (1935). a - 1086

Brief summary of the report which details the different branches of the Department's work in each district under its jurisdiction with reference to hydrography, the upkeep of navigational aids and moorings, pilotage and few aerial navigation installations; statistics concerning buoyage and lighting and the situation of wrecks in Chinese waters.

**An.** - General Bathymetric Charts of the Oceans – Carte Générale Bathymétrique des Océans [*Tabula bathymetrica generalis oceanorum*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., IV, 96. Monaco (1935). **a - 1087**

Information on the completion by the International Hydrographic Bureau of the preparatory work for sheet A' 1 of the General Bathymetric Chart of the Oceans (South Atlantic Ocean). The limits of this sheet are Latitude 0° to 46°40′ S. and Longitude 0° to 90° W.

**An.** - International Hydrographic Bureau. Exhibition of Instruments. Bureau Hydrographique International. Exposition d'Instruments [*Officium Hydrographicum internationale. Instrumentorum expositio*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., IV, 97-98. Monaco (1935). **a - 1088**

List of additional instruments received by the Bureau for its permanent exhibition.

**An.** - Use of Aircraft for Surveying – Emploi de l'aviation pour les levés [*De utenda aëronavigatione ad relevamenta ducenda*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Int. Hydrogr., V, 105-106. Monaco (1935). **a - 1089**

Brief account of a number of articles appeared on the use of photographs taken from the air for surveying purposes. The articles have been published in Germany, in Italy, in the Netherlands and in Great Britain.

**An.** - Bathymetric Chart – Atlantic Ocean – Carte bathymétrique-Océan Atlantique [*Tabula bathymetrica. Oceanus Atlanticus*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr., Int., V, 106-107. Monaco (1935). **a - 1090**

Description of the « Uebersichtskarte der Tiefenverhältnisse des Atlantischen Ozeans » (Synoptic Chart of the Depth Conditions of the Atlantic Ocean) published in the « Wissenschaftliche Ergebnisse der Deutschen Atlantischen Expedition auf dem Forschungs- und Vermessungsschiffe « Meteor », 1925-27 » and of which a copy has been sent to the International Hydrographic Bureau.

**An.** - Spanish Surveying Vessel – Navire hydrographe espagnol [*Navis hispanica pro hydrographia*]. (In Engl. & French). Int. Hydrogr. Bull., VI, 119. Monaco (1935). **a - 1091**

Information of the launching of the new Spanish surveying vessel « Malaspina », on 13th September 1935, at Cadiz.

**An.** - Deep-Sea-Soundings. Soundings in the North Atlantic – Sondages océaniques. Sondages dans l'Atlantique Nord [*De scandaliis in Oceano Atlantico Nordico*]. (In Engl. & French). 2 tables. Int. Hydrogr. Bull. – Bull. Hydrogr. Int., I, 2-3. Monaco (1936). **a - 1092**

Information on a complete list of the deep-sea soundings recorded by the Netherlands submarine K. XVIII during the 1934-35 cruises from the Netherlands to South America, the Cape of Good Hope, Australia and Batavia and the use made of it. Information on the soundings sponsored by the French Service Hydrographique in the North Atlantic.

**An.** - Geographical Positions – Positions géographiques [*Positiones geographicae*]. (In Engl. & French). Int. Hydrogr. Bull. – Bull. Hydrogr. Int., 11, 24. Monaco (1936). **a - 1093**

Brief report on observations for differences of astronomical longitudes carried out between Potsdam Observatory and Danzig and Kaunas.

**An.** - Proyección conforme. Coordenadas conformes de Gauss (Conclusión) [*Proiectio conformis. Coordinatae conformes ad* Gauss *pertinentes*]. Mem. Técn. Ejérc. Chile, III, 13, 1565-1578. Santiago (1935). **a - 1094**

En articulos anteriores l'A. desarrolla dos problemas: 1) Cálculo de las coordenadas planas $x$ e $y$ por medio de las coordenadas geográficas. 2) Cálculo de las coordenadas de $P_2$ $(x_2, y_2)$; dando las coordenadas $P_1$ $(x_1, y_1)$, la longitud, dirección de la linea geodésica $P_1 P_2$ y la latitud del origen del sistema X Y. Aquí l'A. desarrolla un tercer problema para mejor comprensión de la materia: 3) Calculo de las coordenadas geográficas $l$ y $\varphi$ por medio de las coordenadas planas $x$ e $y$.

**An.** - Consideraciones sobre Astronomia geodésica [*Considerationes de astronomia geodetica*]. 3 tabl. Mem. Tecn. Ejerc., Chile, III, 13, 1591-1608. Santiago (1935). **a - 1095**

Necesidad y objeto de las observaciones astronómicas de campaña en los trabajos geodésicos. - Empleo que se les dará a las observaciones astronómicas en el Instituto Geográfico Militar de Chile. - Métodos que empleará este Instituto en sus trabajos astronómicos. - Bibliografia y textos de consulta. - Métodos de Sterneck y Horrebow-Talcot de observaciones en el meridiano para determinación de latitudes. - Instrumentos y anexos necesarios. - Determinación de la hora y azimut por observaciones de estrellas en el vertical de Sigma Octantis. - Confección de un programa de observaciones; exigencias que éste debe cumplir; ejemplo de un programa.

**An.** - La Sección Levantamiento de la Carta en Magallanes [*Sectio tabula Magellanica delineanda*]. Mem. Tec Ejérc. Chile, IV, 14. Santiago (1936). **a - 1096**

Sobre la creación de la Sección que costituye una nueva actividad en orden a ejecutar trabajos geodésicos y topográficos en Magellanes, Patagonia Chilena.

**An.** - La Bouteille Isolante [*De buticula hydrographica*]. 2 fig. Rev. Hydrogr. XIII, 1, 122-125. Monaco (1936). **a - 1097**

Modèle en usage au Serv. Hydrogr. Britannique. Sert à mésurer les températures et à prendre des échantillons d'eau à des profondeurs moyennes.

**An.** - Une importante mission hydrographique sur les côtes de Provence [*De quadam missione hydrographica magni momenti in Litora Provincialia*]. Rev. Marit. Févr. 244-245. Paris (1935). **a - 1098**

**An.** - Unterwasserschallbeobachtungen mit dem Niederfrequenzverstärker [*Observationes peractae per scandalia sonora submarina amplificatoris auxilio demissa frequentia*]. 1 Tab. Seewart, IV, 3, 116-117. Hamburg (1935). **a - 1099**

Auszug aus einem Bericht von E. Willumsohn über Abhören der Unterwasser-Signale auf grosse Entfernungen (über 20 Sm), begleitet von einigen Anmerkungen der Schriftleitung von dem « Seewart » über die grossen Reichweiten der Unterwasserschall-Zeichen, die verschiedenen Faktoren, die das Abhören beeinflussen, sowie über die Anwendung des Elektrolots.

## Chartographia - Atlantes - Portulani.

**Almagià R.** - Intorno ad una carta di Bartolomeo Colombo (1513) [*De quadam tabula Bartolommaei* Colombo]. Riv. Geogr. Ital., I–III, 29-33. Firenze (1935). **a - 1100**

Nella Carta delle Grandi Antille e del Mar Caraibico di Pietro Martire d'Anghiera figura il contorno della costa della Florida, la cui ricognizione si attribuisce al viaggio di due anni posteriore di Ponce de Leon (1513). Lo Harrisse emise l'ipotesi che questa carta sia un'aggiunta posteriore. Sulla origine della carta getta luce la recente notizia che Bartolomeo Colombo aveva fatto una carta delle isole e l'aveva mandata al Re Ferdinando alla fine del 1512 o al principio del 1513.

**Baker J. N. L.** - Some original Maps of the East India Company [*Chartae quaedam geographicae ad* East India Company *pertinentes*]. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam LIII, 5, 665-667. Leiden (1936). **a - 1101**

Some information on a set of charts produced by Blaeu or by his firm for the Dutch East India Company and found in a College at Oxford. The charts cover the whole of a ship's course from South Africa to Japan and the East Indies.

**Belavine A. F. & Berzak D. S.** - Sur les cartes de la Région du Nord [*De tabulis quae regionem nordicam repraesentant*]. (En russe). Cartes et schémas (5 feuilles h. t.). 79 pp., Severn. Aerophotogeod. Trust, Arkhangheljsk (1933). **a - 1102**

Revue et classification des cartes existantes de la Région du Nord de l'URSS. Histoire de l'élaboration de la carte au 1/500 000 de cette région.

**Belfiore P.** - Cartografia coloniale ed impiego della fotogrammetria [*De chartographia coloniarum deque utenda photogrammetria*]. 22 fig., Riv. Catasto e Servizi Tecnici Erariali, III, 3, 215-231. Roma (1936). **a - 1103**

Vari tipi di carte. Procedimenti classici. Apparati di restituzione. Raffronti.

**Bowie W.** - Mapping the Country [*De chartographia in Americae Statibus Foederatis*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 61-62. Washington D. C. (1935). **a - 1104**

Importance of mapping for geophysicists, geodesists, geologists, and other scientists - Need for maps - Comprehensive plan for mapping the United States elaborated by the Federal Board of Surveys and Maps in October, 1934 - Geodetic surveys - Topographic maps.

**Bureus A.** - Orbis arctici nova et accurata delineatio. – (In Latin and Engl.). Malmö graf. anst. Malmö (1935). **a - 1105**

Facsimile edition of this old map of the North (1626) published by H. Richter and W. Norlind under the auspices of the Swedish Geographical Society. The work contains six folios with introduction in English.

**Eckert-Greifendorff M.** - Eine neue flächentreue (Azimutaloide) Erdkarte [*De nova quadam mappa mundi conformis*]. Peterm. Mitt. Juni. 190-192. Gotha (1935). **a - 1106**

**Eckert-Greifendorff M.** - Kartenkunde [*Chartographia*]. 66 Fig., 147 S. W. de Gruyter. Berlin, Leipzig (1936). **a - 1107**

**Frenzel K.** (Hrsg.) - Velhagen & Klasings Grosser Volksatlas. Das Jubiläumswerk des Verlages zum hundertjährigen Bestehen [*Atlas popularis editus a* Velhagen *et* Klasing *anno jubilari recurrente ab origine instituti*]. xii + 39 S. Text, 92 S. Karten, 112 S. Namenverzeichnis. Bielefeld & Leipzig (1936). **a - 1108**

Der Atlantische Ozean, der indopazifische Raum sowie die Polargebiete sind auf Sonderkarten dargestellt.

**Gernez D.** - Les Amstelredamsche Zeecaerten d'Aelbert Haeyen [*De Amstelodamensibus marinis chartis Alberto* Haeyen *auctore*]. 1 fig., 3 cartes, 1 carte h. t. 30 pp., Extr. « Compas d'Or », Bull. Soc. Biblioph. Anvers (1934). **a - 1109**

Résultats d'une étude au point de vue nautique des « Amstelredamsche Zeecaerten » d'Aelbert Haeyen, conservées au musée Plantin Moretus à Anvers. En outre l'A. réunit dans cet ouvrage tous les renseignements qu'il a pu trouver sur ce navigateur et cartographe dont la renommée dans les Pays-Bas a été très grande au XVI siècle.

**Hitchcock C. B.** - Physiography of the Cape Chidley Sheet [*De physiographia in tabula quae* Cape Chidley *repraesentat*]. Geogr. Rev., XXVI, 1, 56-58. New York (1936). **a - 1110**

Appendix II to the article by Alexander Forbes « A Flight to Cape Chidley », during which a map of the Cape district has been constructed from aerial photographs. In the present note some ideas on the nature of bedrock is expressed as has been gained from the study of the photographs of the region.

**Kawraisky W. W.** - Investigation in Mathematical Cartography [*Investigationes in chartographiam mathematicam*]. Ills. Allunion Cartographic Trust. Leningrad (1933).

(—) Mathematical Cartography. Ills. 276 pp. Allunion Cartographic Trust. Leningrad (1934). **a - 1111**

**Kovtun A.** - Cartographic and Astronomic Work in the Chaun Region in 1934-1935 [*De operibus chartographicis et astronomicis in regione* Tschaun, *A. 1934-35*]. (In Russ.). Bull. Arct. Inst., V, 11, 383-384. Leningrad (1935). **a - 1112**

Brief résumé of the exploration of the Chaun District during the Tschukhotsk Expedition of 1934-1935; as a result a map of the district on the scale of 1 : 500 000 instead of a map on a scale of 1 000 000, as first proposed, has been drawn, so that the program of cartographical work elaborated has been carried out in a higher measure as foreseen.

**Le Roux C. C. F. M.** - Boegineesche Zeekarten van den Indischen Archipel [*Tabulae marinae ad archipelagus Indianum pertinentes*]. 1 carte h. t. Tijdschr. Kon Ned. Aardr. Gen. Amsterdam, II, 5, 687-714. Leiden (1935). **a - 1113**

Description de trois cartes marines de l'Archipel Indien trouvées réspectivement dans la Bibliothèque de la Société Royale des Arts et Sciences à Batavia, au Musée naval, Madrid, et à l'Institut Géographique d'Utrecht. Discussion sur l'époque de leur origine, leur modèle et construction etc. Liste des noms géographiques.

**Levine M.** - Collection du matériel cartographique et des travaux ethnographiques de l'Extrême-Nord [*Collectio rerum chartographicarum et operum ethnographicorum regionum orientis extremi*]. (En russe). Sov. Krajeved. (Ethnogr. Sov.), 5, 17-19. Moskva (1935). **a - 1114**

**Lingel R.** - The Atlantic Neptune [*Collectio chartarum cuius titulus* The Atlantic Neptune]. 4 pls. Bull. New York Publ. Libr. XL, 7, 571-603. New York (1936). **a - 1115**

Investigation on the existing copies of « The Atlantic Neptune » published in 1780 and referred to as « the most splendid collection of charts, plates and views ever published ».

**Martonne (de) Ed.** - Cartographie coloniale [*Chartographia colonialis*]. 48 fig. 297 pp., Les Man. Colon., Larose. Paris (1935). **a - 1116**

Dans la première partie de son ouvrage l'A. examine, sous le titre « Les matériaux des cartes coloniales », les travaux définis sous la dénomination générique de « Topographie », depuis les opérations classiques de la géodésie jusqu'à la photo-topographie aérienne. La II^e^ partie est consacrée à la confection matérielle des cartes coloniales et dans la III^e^ partie sont illustrés tour à tour les différents types de cartes. La dernière partie traite de l'avancement présent de la cartographie coloniale officielle de France.

**Maurer H.** - Ueber die Stereodromo [*De stereodromo*]. 1 Abb. Ann. d. Hydrogr. XLIII, 12, 489-493. Berlin (1935). **a - 1117**

Kritische Bemerkungen zu dem von W. Immler (Ann. d. Hydrol. S. 275, 1935) gemachten Vorschlag, statt der bisherigen Merkator-Seekarten stereographische Karten und nach ihnen statt der loxodromischen Schiffahrt die stereodromische einzuführen.

**Messer P.** - Comparison of Navigation and Aviation Charts [*Comparatio inter tabulas pro navigatione et tabulas pro aeronavigatione*]. (In Russ.). Hydrogr. Ber. 3. Leningrad (1934). **a - 1118**

**Miller O. M.** - Notes on the Construction of the Cape Chidley Sheet [*De construendis tabulis ad* Cape Chidley *pertinentibus*]. 1 map. Geogr. Rev., XXVI, 1, 53-56. New York (1936). **a - 1119**

Appendix I to the article by Alexander Forbes « A Flight to Cape Chidley » describing the method employed in constructing the map of northernmost Labrador, of which Sheet n° I is published. The method is very much the same as in ordinary ground surveying except that the measurements are made from aerial photographs in which the horizon appears. Some specific details of the construction of the map are given, and the speed and accuracy of the work carried out emphasized.

**Morsier (de) P.** - Note sur la cartographie des Bancs de Terre-Neuve établie par l'Office des Pêches Maritimes [*De chartographia vadorum in Terra Nova constituta ab officio pro Piscatione maritima*]. Rev. Marit. Nov. 589-595. Paris (1935). **a - 1120**

**Motylev V.** - Programme et sujet des cartes du grand atlas universel soviétique [*Ratio et substantia tabularum quae pertinent ad atlantem universum a Sovietis redactum*]. 35 pp. C. R. Dél. Sov. Congr. Int. Géogr. Varsovie, Inst. Scient. Publ.Gr. Atl. Sov., Léningrad (1934). **a - 1121**

**Raab** - Kritik der Fehlergrenzen für die Oberflächendarstellung in Topographischen Karten [*De erroris limitibus in superficie tabularum topographicarum repraesentanda*]. Abb., 12 S., H. Wichmann. Berlin (1935). **a - 1122**

**Rothé E.** - Rapport sur les travaux effectués en vue de l'Atlas géophysique [*Relatio de operibus peractis ad atlantem geographicum redigendum*]. Bull. Géod. 46, 308-316. Toulouse-Paris (1935). **a - 1123**

**Serghievskij B. A.** - Matériel astro-géodésique comme base pour l'élaboration des cartes de la zone Obj-Enissej de la Mer de Kara [*Res astrogeodeticae quibus utitur ac base ad elaborandas tabulas circa regionem* Obj-Enissej *Maris Karensis*]. (En russe, rés. angl.). Sev. Morsk. Putj (Rec. Art. Hydrogr. & Navig.), I, 37-51. Leningrad (1934). **a - 1124**

**Serghievskij B. A.** - Nouvelles cartes de navigation des régions polaires [*Tabulae novae ad regiones polares navigandas*]. Sev. Morsk. Putj, II, 53-59. Leningrad (1935). **a - 1125**

**Tavares R.** - Corografia de la costa del Brasil [*Corographia Brasiliae litorum*]. Rev. Soc. de Geografia. XXXIX 1° y 2° sem. Rio de Janeiro (1934). **a - 1126**

**Wedemeyer A.** - Winkeltreue Kartennetze in elementarer Behandlung [*Retia chartographica, angulo perfecto praedita, quoad interpraetationem elementarem*]. 27 Fig., 1 Tab. Aus. d. Arch. Dtsch. Seewarte, LV, 2, 3-42. Berlin (1936). **a - 1127**

Aus dem normalen azimutalen Netze der stereographischen Karte, deren Winkeltreue bewiesen wird, lassen sich mit Hilfe der Loxodrome leicht die Halbmessergesetze der winkeltreuen zenitalen Netze ableiten. Die zenitalen Entwürfe bieten den azimutalen gegenüber den Vorteil die Zonen der Erde in einem einheitlichen Massstabe darzustellen, wodurch ihre praktische Brauchbarkeit wesentlich erhöht wird. Den gleichen Vorteil bietet auch der zenitale Merkatorentwurf. Alle Entwicklungen sind elementar durchgeführt. Statt des schwer zu rechnenden und zu zeichnenden Netzes der Weltkarte von August wird ein Lambertsches Kreisnetz vorgeschlagen, das leicht zu entwerfen ist und der Karte von August an Güte nicht nachsteht. (Aus Vf:s Rés.).

**Afdeeling Hydrografie van het Ministerie van Defensie** - Catalogus van Nederlandsche zeekarten en boekwerken [*Elenchus tabularum maritimarum atque libri*]. cartes, 47 pp. 's-Gravenhage (1936). **a - 1128**

**Comitato del decennale dell'annessione di Fiume all'Italia** - Carta plastigrafica della Costa Adriatica da Venezia a Sebenico [*Charta plastigraphica Hadriatici litoris a Venetiis ad* Sebenico]. Istituto Italiano d'Arti Grafiche, Bergamo, Compagnia Adriatica di Navigazione Edit. Venezia (1934). **a - 1129**

**Deutsche Seewarte** - Beiträge zur Küstenkunde-Hobart, Tasmanien [*Contributio in litora cognoscenda. Regio* Hobart *in* Tasmania]. 1 Taf. a. T., Seewart, IV, 3, 127-152. Hamburg (1935). **a - 1130**

Hobart: Landmarken und Untiefen an der Küste, im Derwent-Fluss, im D'Entrecasteaux channel; Nordende der West- und Ostseite; An-und Einsteuerung; Signalstellen; Küstenfunkstelle; Lotsenwesen; Schleppdampfer; Quarantäne; Zollbehandlung; Ankerplatz; Hafenordnung; »Wind, Wetter und Klima; Hafenunkosten; die Stadt Hobart; Schiffsausrüstung. - Der Derwent-Fluss oberhalb von Port Hobart und Dowsing Point.

**Ghidrografitcheskoje Upravlenije** (Service Hydrographique) - Carte de la Mer de Kara sur 2 feuilles en projection transversale cylindrique, correspondant à celle de Mercator, 1 : 1.000.000. [*Tabula Maris Karensis in duobus foliis cum projectione transversa cylindrica projectioni Mercatorianae simili. Modulus 1: 1.000.000*]. Ghidrogr. Upr. Glavsevmorputj. Leningrad (1934).
**a - 1131**

**Ghidrografitcheskoje Upravlenije** (Service Hydrographique) - Carte des Mers de Barents et de Kara en projection transversale cylindrique, correspondant à celle de Mercator, 1 : 2000000 [*Tabula Marium* Barents *nomine et* Kara *cum projectione transversa cylindrica, projectioni Mercatorianae conformi*]. Ghidrogr. Upr., Leningrad (1934). **a - 1132**

**Hydrografischen Dienst** - Zeekaart no. 183. Celebes-zee. Sangi-eilanden 1 : 200000 [*Tabula nautica N. 183. Celebes-mare* Sangi *insulae. Modulus 1 : 2.000.000*]. 's-Gravenhage (1935).
**a - 1133**

**International Hydrographic Bureau - Bureau Hydrographique International** - Catalogue of Original Charts (Pacific Ocean), Part III – Catalogue des Cartes originales (Océan Pacifique) IIIe Partie [*Catalogus chartarum originalium (Oceanus Pacificus) Pars IIIa*]. (In Engl. & French) 130 charts. Monaco (1935). **a - 1134**

This publication contains 130 index charts; it is corrected to the 1st February 1935. The three parts of this Catalogue together form with their Index a complete list of the original charts of use to seamen for navigation in all the seas and oceans of the whole world, with the exception of the Polar seas.

**Istituto Idrografico della R. Marina** - Portolano del Mediterraneo. Coste d' Italia da Capo Santa Maria di Leuca a Duino, incluse le Isole Tremiti, Pianosa e Pelagosa [« *Mediterranei maris portulanus* »: *De Italiae litoribus ex Sanctae Mariae Leucae promunturio ad Duinum, Diomedaeis itemque Planasia Pelagosaque insulis inclusis*]. (Seconda Edizione), N. 3016, Suppl. n. 2 al vol. 4o del Portolano del Mediterraneo. Genova (1934).
**a - 1135**

**Istituto Idrografico della R. Marina** - Supplemento all'elenco dei fari, fanali e segnali da nebbia. Mediterraneo, Mar Nero, Mar d'Azof, Mar Rosso, Golfo d'Aden e costa orientale d'Africa fino a Zanzibar [*Elenchus pharorum, lanternarum et signorum ad caliginem vitandam. Mare Mediterraneum. Pontus Euxinus. Palus Moeotidis Mare Rubrum, Sinus* Aden, *Litora orientalia Africana usque ad* Zanzibar]. 79 pp., Ist. Idrogr. R. Marina, Genova (1934). **a - 1136**

**Istituto Idrografico della R. Marina** - Carta del Mare Adriatico. Canali di Venezia. Dai rilievi originali del 1886 e da quelli successivi fino al 1934 [*Tabula Maris Hadriatici, A relevamentis A. 1886 usque ad relevamenta A. 1934*]. 1: 7.500. Genova (1935).

(—) Carta del Mare Adriatico. Italia, Porti di Rovigno e Orsera. Dai rilievi della Missione Idrografica [*Italia. Portus Arupinensis et* Orsera]. 1: 5.000. Genova (1935).

(—) Carta del Mare Adriatico. Italia. Porto di Ancona. Dai rilievi eseguiti dalla R. N. « Dardanelli » [*Portus Anconitanus*]. 1: 5.000. Genova (1935).

(—) Carta del Mare Adriatico. Italia. Venezia. Porto di Lido. Dai rilievi del 1931-34 [*Venetiae Portus*]. 1: 10.000. Genova (1935).

(—) Carta del Mare Mediterraneo. Italia. Riviera da Nervi a Voltri. Dai rilievi originali della R. N. « Washington » 1884 e da quelli successivi fino al 1934 [*Tabula Maris Mediterranei. Litus a* Nervi *ad* Voltri]. 1: 25.000. Genova (1935).

(—) Carta del Mare Tirreno. Italia. Golfo di Napoli. Dai rilievi originali della R. N. « Washington » 1883-86, e da quelli successivi fino al 1932 [*Tabula Maris Thyrreni. Sinus Neapolitanus*]. 1: 60.000. Genova (1935).

(—) Carta dell'Oceano Indiano. Somalia Italiana. Ancoraggio di Mogadiscio [*Tabula Oceani Indiani, Somaliae Italicae. Appulsus litoreus in* Mogadiscio]. Dai rilievi della Regia Nave « Staffetta » 1911, e da quelli successivi fino al 1924. 1: 7.500. Genova (1934).

(—) Carta dell'Oceano Indiano, Somalia Italiana. Ancoraggio di Hauf Sud. [*Tabula Oceani Indiani, Somaliae Italicae. Appulsus litoreus* Hauf Sud]. Dai rilievi della R. N. « Amm. Magnaghi » 1924. 1 : 20.000. Genova (1934). **a - 1137**

**Istituto Idrografico della R. Marina** - Carta del Golfo di Venezia, dalle Bocche del Po a Pola. [*Tabula Sinus Veneti*]. Dai rilievi originali del 1896 e da quelli successivi fino al 1934. 1: 160.000. Genova (1934).

(—) Carta del Mare Mediterraneo. Dalle Baleari a Malta, Bocche di Bonifacio e Stretto di Messina [*Tabula Maris Mediterranei. Ab insulis Balearibus ad Melitam. . .*]. Dai rilievi delle varie Nazioni 1934 1 : 1.000.000. Genova (1934).

(—) Carta del Mare Mediterraneo. Da Bengasi a Porto Said, e isole meridionali dell'Egeo (*A* Bengasi *ad Portum* Said. . .]. Dai rilievi delle varie Nazioni 1934, 1 : 1.000.000. Genova (1934).

(—) Carta del Mare Mediterraneo. Dal Golfo di Leone allo Stretto di Messina [*A Sinu* di Leone *ad fretum Siculum*]. Dai rilievi delle varie Nazioni, 1934, 1: 1.000.000. Genova (1934).

(—) Carta del Mare Mediterraneo. Dallo Stretto di Gibilterra alle Baleari. Europa da Cadice a Barcellona. Africa da Capo Sparki a Bongie [*A Freto Gaditano ad Baleares. Europa a Cadice ad Barcinonem*]. Dai rilievi delle varie Nazioni. 1 : 1.000.000. Genova (1934).

(—) Carta del Mare Mediterraneo. Da Tunisi a Derna. Canale di Sicilia e Golfo della Sirte [*A* Tunisi *ad* Derna]. Dai rilievi delle varie Nazioni 1934. 1 : 1.000.000. Genova (1935). **a - 1138**

**Istituto Italiano d'Arti Grafiche** - Rotte percorse dalle navi della Navigazione Libera Triestina [*Cursus maritimi navium quae pertinent ad Navigationem Liberam Tergestinam*]. Scala di 1 : 22.500.000. Bergamo (1935). **a - 1139**

Comunicazioni tra l'Italia e il Nord Pacifico, il Messico, il Nord Atlantico, il Sud Africa e tra l'Africa Occidentale e il Sud Africa.

**Kungl. Svenska Sjökarteverket** - Kalmar Sund. Södra delen. 1 : 100.000 [*Pars meridionalis isthmi* Kalmar]. Kungl. Sv. Sjök. v. 65 a. Stockholm (1934). **a - 1140**

**Kungl. Svenska Sjökarteverket** - Öresund. Södra delen. 1: 60.000 [*Regio* Öresund. *Pars meridionalis. Modulus 1 : 60.000*]. Kungl. Sv. Sjök. v. 271. Stockholm (1934). **a - 1141**

**Kungl. Svenska Sjökarteverket** - Stockholms skärgård Saltsjöbaden – Sandhamn – Huvudskär 1 : 50.000 [*Archipelagus Holmiense*]. Kungl. Sv. Sjök. v. 236. Stockholm (1934). **a - 1142**

**Oberkommando der Kriegsmarine** - Handbuch des Irischen Kanals. II. Teil. Westküsten Englands und Schottlands bis 56° N. 4. Aufl. [*Liber pro navigatione Canali hiberno. Pars IIª. Litora occidentalia Anglica et Scota usque ad 56° N. Editio IV*]. xvi + 408 S., 132 Abb. E. S. Mittler u. Sohn (Berlin, 1936). **a - 1143**

**Service Hydrographique Gusmp** - Carte de la Baie Sajaskaja (Mer des Frères Laptev) 1 : 2 000 000, parallèle 75° lat. N. [*Tabula bajae* Sajaskaja. *Mare cuius nomen est mare Fratrum* Laptev. *Modulus 1 : 2.000.000*]. Edit. Serv. Hydrogr. Adm. Centr. Voie Marit. Nord, Léningrad. (1934). **a - 1144**

**Service Hydrographique Gusmp & Ums Rkka** - Carte de la côte Sud de la Novaja Zemlja (Mer de Barents), 1 : 200 000, parallèle 76° lat. N. [*Tabula litorum meridionalium Novae Zemliae.* (*Mare Barentsium*) *Modulus 1 : 2.000.000*]. Edit. Serv. Hydrogr. Adm. Centr. Voie Marit. Nord. Léningrad (1934). **a - 1145**

**Service Hydrographique Gusmp & Ums Rkka** - Carte du détroit Malyghine (Mer de Kara) 1 : 200.000, parallèle 70° lat. N. [*Tabula quae repraesentat Fretum* Malyghin (*Mare Karense*) *Modulus 1 : 200.000*]. Edit. Serv. Hydrogr. Adm. Centr. Voie Marit. Nord. Léningrad (1934). **a - 1146**

**Service Hydrographique Gusmp & Ums Rkka** - Carte de l'embouchure du fleuve Kolyma du Cap Medvejij à la jetée Schalaourova, 1 : 50.000, parallèle 75° lat. N. [*Tabula quae accessum repraesentat ad flumen* Kolyma, *a promunturio* Medvezjii *ad molem* Schalurova. *Modulus 1 : 50.000*]. Edit. Serv. Hydrogr. Adm. Centr. Voie Marit. Nord, Léningrad (1934). **a - 1147**

**Service Hydrographique Gusmp & Ums Rkka** - Carte de la Mer Polaire Septentrionale, 1 : 3.000.000 sur le parallèle 75° [*Tabula maris polaris septentr. Modulus 1 : 3.000.000*]. 3 feuilles. Edit. Serv. Hydrogr. Adm. Centr. Voie Marit. Nord. Léningrad (1934). **a - 1148**

**Service Hydrographique Gusmp & Ums Rkka** - Carte de la Mer de Tchoukhotsk à partir du détroit de Long (Cap Billings jusqu'au Cap Lisbury, Alaska) 1.000.000, parallèle 69° lat. N. [*Tabula maris* Tschoukhotsk *a Freto* Long *et ultra regionem* Billings *usque ad promunturium* Lisbury (*in Alaska*) *Modulus 1 : 1.000.000*]. Edit. Serv. Hydrogr. Adm. Centr. Voie Marit. Nord. Léningrad (1934). **a - 1149**

**Service Hydrographique Gusmp & Ums Rkka** - Carte de la Mer Sibérienne Orientale depuis le détroit de Long jusqu'à l'embouchure du fleuve Kolyma 1 : 1.000.000, parallèle 69° lat. N. [*Tabula maris Siberiani Orientalis, a Freto* Long *usque ad accessum fluminis* Kolyma. *Modulus 1 : 1.000.000*]. Edit. Serv. Hydrogr., Adm. Centr. Voie Marit. Nord. Léningrad (1934). **a - 1150**

**Service Hydrographique Gusmp & Ums Rkka** - Carte des mouillages dans le Golfe de l'Enissejsk (baie Omoulevaja et baie Vazoutchjan), 1 : 2.000.000, parallèle 75° lat. N. [*Tabula quae appulsus litoreos in Sinu* Enissejsk *repraesentat. Modulus 1 : 2.000.000*]. Edit. Serv. Hydrogr., Adm. Centr. Voie Marit. Nord. Léningrad (1934). **a - 1151**

**Service Hydrographique Gusmp & Ums Rkka** - Plan des approches à l'embouchure de la rivière Tchaouna dans la Baie Tchaouna (Mer Sibérienne Orientale) 1 : 50 000, parallèle 69° lat. N. [*Tabula quae repraesentat appulsus ad faucem fluminis* Tschauna *in baja* Tschaunskaja (*Mare Siberianum Orientale*). *Modulus 1 : 50.000*]. Edit. Serv. Hydrogr. Adm. Centr. Voie Marit. Nord. Léningrad (1934). **a - 1152**

**Service Hydrographique Gusmp & Ums Rkka** - Plan de la Baie Prontschistscheva (Mer des Frères Laptev), 1 : 75.000 [*Tabula quae bajam* Prontschistscheva *repraesentat*]. Edit. Serv. Hydrogr. Adm. Centr. Voie Marit. Nord. Léningrad (1934). **a - 1153**

**Service Hydrographique Gusmp & Ums Rkka** - Plan du détroit entre l'Ile Rawtan et la péninsule de Pevek dans la Baie Tchaounskaja (Mer Sibérienne Orientale), 1 : 50.000, parallèle 69° lat. N. [*Tabula quae fretum repraesentat inter insulam* Rawtan *et paeninsulam* Pevek *in baja* Tschaunskaja (*Mare Siberianum Orient.*). *Modulus 1 : 50.000*]. Edit. Serv. Hydrogr. Adm. Centr. Voie Marit. Nord. Léningrad (1934). **a - 1154**

**L. G.** - Studi sulla storia della Cartografia portoghese [*De historia chartographiae Lusitanae*]. Universo, Nov., 969. Firenze (1935). **a - 1155**

**An.** - Commission 6: Projections [*De operibus a Commissione 6ª peractis. Projectiones*]. Bull. géod. XLV, Janv.-Mars, 50-71. Toulouse, Paris (1935). **a - 2156**

Travaux de la Commission. Annexes.

**An.** - Sailing Directions - Instructions nautiques [*Portulani*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 62. Monaco (1935). **a - 1157**

Information on a new edition of the « West Coast of Scotland Pilot » which includes the coast from the Mull of Galloway to Cape Wrath, with the Hebrides.

**An.** - New Books - Ouvrages nouveaux [*De novis operibus*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 62-63. Monaco (1935). **a - 1158**

Information on the publication by the Service Hydrographique de la Marine of a « Catalogue des cartes, plans et ouvrages qui composent l'hydrographie française au 1r janvier 1935; publication n° 11-7 » and on those by late prof. G. Magrini among which a vocabulary of the principal terms used in oceanography.

**An.** - Use of the Terms « New Edition », « Reprint », etc. - Emploi des expressions « Nouvelle édition », « Nouveau tirage », etc. [*De dictionibus* New Edition *etc. Quaestio de usu*]. Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 77. Monaco (1935). **a - 1159**

Reply of Yougoslavia to Bulletin 1934 Circular letter n° 1 referring to the use of the terms « New Edition », « Reprint », etc. by the Director of the Hidrografski ured Mornarice, Split » adopted by the Hydrographic Office of Yougoslavia for the purpose of distinguishing the different issues of editions of charts.

**An.** - Natural Scales of Charts - Echelles naturelles des cartes [*Tabularum moduli naturales*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 77-78. Monaco (1935). **a - 1160**

Reply of the Hydrographer of the British Navy to the note appearing in thick type on page 4 of the « International Hydrographic Bulletin » for March-April 1935 concerning the practical rules adopted for determining the Natural Scales of charts by the Hydrographic Department, London.

**An.** - Geographical Positions - Positions géographiques [*Positiones geographicae*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 79. Monaco (1935). **a - 1161**

Supplement to I. H. B. Special Publications n° 24 and 24*a*, concerned with the geographic position of Córdoba (Argentina) and the co-ordinates of the Military Geographical Institution at Santiago (Chile).

**An.** - Catalogues [*Catalogi*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 93. Monaco (1935). **a - 1162**

Information on the publication of catalogues by the Hydrographic Offices of Yougoslavia, Poland, and Siam.

**An.** - Index Charts - Cartes Index [*Tabularum indices*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 94. Monaco (1935). **a - 1163**

Information on a New Edition of the Division of Cartography of the Hydrographic Office of Finland, which terminates the series of Finland's coastal charts.

**An.** - Sailing Directions - Instructions nautiques. Canada. [*Praecepta nautica. Regio Canadensis*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 95. Monaco (1935). **a - 1164**

Information on a first edition (1934) of a volume of Sailing Directions entitled « Gulf of St. Lawrence Pilot (Canadian Edition), with the coasts of Quebec, New Brunswick, Prince Edward Island, Nova Scotia, Cape Breton Island and Newfoundland, bordering on the Gulf of St. Lawrence; including the Banks of Newfoundland and the Approaches to the Gulf by Cabot Strait, the Strait of Belle Isle, and the Strait of Canso ».

**An.** - New Charts - Cartes nouvelles [*Tabulae novae*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 98. Monaco (1935). **a - 1165**

List of charts recently received by the International Hydrographic Bureau from the British Admiralty; the charts are of the Solent and approaches, including Southampton, published on 25th June, 1935 on a natural scale of 1 : 20.000, and cancel the previous charts of the same numbers respectively.

**An.** - Use of the Terms « New Edition », « Reprint », etc. - Emploi des expressions « Nouvelle Edition », « Nouveau Tirage », etc. [*De dictionibus* New Edition *etc. Quomodo iis utitur*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., V, 103-104. Monaco (1935). **a - 1166**

Text of the reply given to the request appeared on page 20 of « Int. Hydrogr. Bull. », n° 11, 1934, in which the Hydrographer of Netherlands communicates to the International Hydrographic Bureau the equivalent names in the Netherlands languages of the definitions given by Great Britain and the U. S. A. in the above-named Bulletin.

**An.** - New Books. Cartographic Projections - Ouvrages nouveaux. Projections cartographiques [*Libri novi. Projectiones chartographicae*]. (In Engl. & Russ.). Int. Hydrogr. Bull. - Bull. Int. Hydrogr., V, 109-110. Monaco (1935). **a - 1167**

Brief account of two works published in U. S. S. R. dealing with cartographic projection and containing also a series of mathematical investigations of mathematical cartography.

**An.** - New Nautical Publications - Ouvrages nautiques nouveaux [*De novis operibus nauticis*]. (In Engl. & French). Int. Hydrogr. Bull., VI, 120. Monaco (1935). **a - 1168**

Information on publication of new Sailing Directions in France and Chile.

**An.** - New Charts. Antarctic - Cartes nouvelles. Antarctique [*Tabulae novae. Regio Antarctica*]. (In Engl. & French). Int. Hydrogr. Bull., VI, 121. Monaco (1935). **a - 1169**

Information on the publication in 1935 by the Norges Geografiske Opmåling of a series of four charts which show the entire periphery of the Antarctic situated between Lats. 50° S. and 73° S.

**An.** - New Charts - Cartes nouvelles [*Tabulae novae*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Int. Hydrogr., I, 1-2. Monaco (1936). **a - 1170**

Charts of the Russian coast - First Edition of Peruvian Chart n° 3 - Puerto del Callao - scale 1 : 10.000 - Sheet A III of the « Carte Aéronautique de base » published by the « Commission Internationale de Navigation Aérienne » based on transfers of the General Bathymetric Chart of the Oceans.

**An.** - Reports on the Work Carried Out and Projected by the Hydrographic Offices - Rapports sur les travaux exécutés et projetés par les Services Hydrographiques [*Relatio de operibus peractis et propositis a Servitiis Hydrographicis*]. (In Engl. & French). Tabl. Int. Hydrogr. Bull. - Bull. Hydrogr. Int., 11, 11-21. Monaco (1936). **a - 1171**

Work carried out: (A) Surveys made, (B) charts published, (C) books and publications issued, during the year 1935, and work projected: (a) surveys projected,

(b) charts or diagrams in hand, (c) books or publications in hand, for 1936 by the United States Hydrographic Office, and by those of Spain and Sweden.

**An.** - Coast Area Defined for Hydrography - Délimitation des zones côtières en vue de l'hydrographie [*Delimitatio regionum litorearum pro hydrographia*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., 11, 22. Monaco (1936). **a - 1172**

Definitions of coast areas to be adopted in all future Hydrographic Publications issued by the Hydrographic Department, China, and to be used when quoting locations in coastal waters of China.

**An.** - Symbols and Abbreviations - Signes conventionels et abréviations [*De symbolis et abbreviationibus*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., 11, 22. Monaco (1936). **a - 1173**

Information on the enclosure in a violet-coloured circle of the positions of Directions-finding stations on Netherlands charts.

**An.** - Special Fund for Keeping the General Bathymetric Chart of the Oceans up to Date - Dotations spéciales pour la tenue à jour de la Carte Générale Bathymétrique des Océans [*Fides pecuniaria specialis ad Chartam generalem Bathymetricam Oceanorum in dies redigendam*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., II, 24-26. Monaco (1936). **a - 1174**

Grants received - Utilisation of grants - Progress of the work (sheets completed during 1935-36).

**An.** - Maps Versus Charts [*Comparatio inter tabulas topographicas et tabulas hydrographicas*]. Milit. Engineer, Sept-Oct., 400. Washington (1935). **a - 1175**

Explanation of the principal characteristics of maps and charts.

## Maritimi Portus - Canales - Aestuaria.

**Adelborg F.** - Singapore, Asiens största hamnstad och porten till yttersta östern [*Asiae maximus omnium est portus* Singapore *qui considerari potest janua ad Extremi Orienti regiones*]. Jorden runt, 225-236. Stockholm (1934). **a - 1176**

**Antonov N. D.** - Amount of Heat Carried by the Rivers into the Kara Sea [*De summa calorica a fluminibus in Mare Karense relata*]. (In Russ., Engl. Summ). 2 figs., 12 tables, 1 map, Trans. Arct. Inst., XXXV, 23-50. Leningrad (1936). **a - 1177**

Results of a study of the basin of the Kara Sea with special regard to the amount of heat carried into it by the rivers, the area of the entire basin and the single rivers' basins, the total annual surface discharge into the Kara Sea, the characteristic of the thermal flow into the Kara Sea. The data communicated are to be considered as preliminary ones.

**Antral** - Porto. 3 fig. Mer et Outre-Mer. Octobre, 49-50. Paris (1935). **a - 1178**

Impressions d'une visite.

**Apolloni U.** - Barcellona [*Barcino*]. 6 fig., 4 pp. Sul Mare, XII, 1. Trieste (1936). **a - 1179**

**Appelberg S.** - I Hamburgs hamn och S:t Paul [*Portus Hamburgensis portusque Scti Pauli*]. Jorden runt. 367-380. Stockholm (1934). **a - 1180**

**Auerbach L.** - The White Sea Canal, being an Account of the Construction of the new Canal between the White Sea and the Baltic Sea [*Canalis Maris Albi. Relatio de novi canalis aedificatione inter Mare Album et Mare Balticum*]. Engl. ed. by A. William-Ellis. London (1935). **a - 1181**

**Bandeira de Melo R. C.** - O porto do Maranhao [*Portus* Maranhao]. Rev. Soc. Geogr. XXXVII, 178-204. Rio de Janeiro (1933). **a - 1182**

**Beltramini de Casati G. M.** - Le port de Fiume [*Portus urbis* Fiume]. 2 diagr. 4 tabl. Géogr., Terre-Air-Mer, LXV, 1, 1-24. Paris (1936). **a - 1183**

Situation de Fiume - les voies d'accès - le port - position géographique - fonctions portuaires - les répercussions économiques des traités. Tableaux du mouvement du port de Fiume: entrées et sorties selon les pays de provenance et de destination, principales marchandises entrées et sorties dans le port de Fiume de 1929 à 1934; mouvement de la navigation dans le port de Fiume pendant 1934, comparé avec celui de 1913, 1929, 1930, 1931, 1932 et 1933.

**Blosset M.** - Le port de Majunga [*Portus urbis* Majunga]. 4 fig., plans & phot. Le Monde Col. Ill., XII, août, 110. Paris (1934). **a - 1184**

**Bojtzov N. D.** - Travail de l'équipe hydrologique d'hiver de la Pjasina de l'Institut Arctique [*De operibus peractis a sectione hydrologica hiemali ad Institutum Arcticum pertinente in regione* Piasina]. (En russe). Bull. Arct. Inst., V, 11, 396-397. Leningrad (1935). **a - 1185**

Bref compte rendu des travaux qui avaient pour but l'étude du bassin du fleuve Piasina et du régime de son écoulement.

**Boldyrev E. & Ouspenskij V.** - La région Boulounskaja (Jakoutie, embouchure de la Léna) [*Regio* Bulunskaja (Jakutija *ad accessus fluminis* Lena)]. (En russe). Ill., 1 carte. Sov. Sever. 3/4, 130-144. Moskva (1935). **a - 1186**

**Bonvicini D.** - Sul regime delle foci lagunari [*De regimine accessuum lacunarium*]. 1 fig. Ingegnere, VIII, 17, 864-866. Roma (1934). **a - 1187**

Ripreso un recente studio del prof. U. Todaro sul moto provocato dalla marea nel canale emissario di una laguna, si perviene ad un'ipotesi particolarmente semplice a stabilire una semplicissima relazione approssimata fra le dimensioni della laguna e del canale, e le ampiezze dell'oscillazione di livello in laguna ed in mare.

**Canihac G.** - L'activité maritime de Barcelone [*Barcino eiusque activitas maritima*]. 18 fig. Rev. Géogr. Pyrénées etc., V, avril, 256-303. Tolouse (1934). **a - 1188**

**Chantepleure G.** - Escales Océaniennes. Nouvelle-Calédonie, Nouvelles-Hébrides [*Portus Oceanici. Nova Caledonia, Novae* Hebridi]. 215 pp. Calmann-Lévy. Paris (1935). **a - 1189**

**Cortez C. V.** - El nuevo puerto de Pizarro [*Portus novus* Pizarro]. « Boletin » Soc. Geogr. Lima, 30. Lima (1935). **a - 1190**

**Debesse M.** - Le port de La Rochelle [*Portus* La Rochelle]. 8 fig., 1 carte. La Nature, 2949, 256-260. Paris (1935). **a - 1191**

**Dei Gaslini M.** - Il Canale di Suez e l'Italia [*De Canali* Suez *atque Italia*]. Sezione del Nastro Azzurro, Editr. Milano (1936). **a - 1192**

Notizie storiche con rivendicazione all'Italia dell'idea del taglio dell'istmo. Notizie politiche ed amministrative.

**Desaunais A. & Simond P.** - Roanne et la Haute-Loire navigable [*De* Roanne *et Ligere superiore navigabili*]. Rev. Géogr. Région., Et. Rhodan., XI, 1, 39-52 (?). **a - 1193**

**Ermel A.** - Etude de l'évolution hydrographique de l'Escaut et de la Lys [*De evolutione hydrographica in regionibus* Escaut *et* Lys]. 2 fig. Ann. Soc. Géogr. Belgique, LVIII, 9/10, 239-252. Bruxelles (1935). **a - 1194**

( — ) Trav. Cercle Géographes liégeois, fasc. 26, Séminaire Géogr. Univ. Liège Trav., fasc. XLVI. Liège.

**Flamini R.** - Il porto di Venezia dalle origini ai nostri giorni [*Portus Venetiarum ab origine in hodiernum*]. 1 carta f. t. Riv. Cult. Mar., XI, 5/6, 454-470. Roma (1936). **a - 1195**

**Gaeta A.** - Il Porto di Trieste nell'Era Fascista [*Portus Tergestinus fascista aetate hodierna*] Tab., cartine, grafici. 540 pp. Off. Graf. Editoriale Libraria. Trieste (1936). **a - 1196**

Messe di notizie statistiche desunte dalle pubblicazioni annuali del Consiglio dell'Economia Corporativa di Trieste.

**Gavaldà (de) J. M.** - Mejoras en una antigua ruta maritima y habilitación de un nuevo puerto en la zona artica americana [*Cursus vetus maritimus in melius redditur. Portus novus aedificatur in regione arctica americana*]. 1 tabl. Bol. Soc. Geogr. Nac., LXXV, 7, 406-419. Madrid (1935). **a - 1197**

Esfuerzos para mejorar las condiciones naturales de la derrota por el estrecho y bahia de Hudson; faros y estaciones de telegrafia sin hilo y radio-goniométricas; la nueva ruta hacia Port Churchill; estracto de un informe acerca de las condiciones de la navegación por el estrecho y la bahia de Hudson durante la temprada de 1934, dado por el Capitán de la motonave francesa « Charles L. D. », Sr. A. Piriou, de el último Report publicado por el Ministerio de Marina del Canadá.

**Gorky M. (Pesjkoff A. M.), Auerbach L. & Firin S. G.** (ed. by), with introd. by **A. Williams-Ellis** - The White Sea Canal, being an Account of the Construction of the new Canal between the White Sea and the Baltic Sea [*De canali Maris Albi. Relatio de novo quodam canali aedificando inter Mare Album et Mare Balticum*]. Ill., map., 356 pp. William Ellis. London (1935). **a - 1198**

**Hanley W. M.** - The Suez Canal [*Canalis* Suez]. Geogr. Rev., XXVI, 1, 158-159. New York (1936). **a - 1199**

On hand of several articles by E. M. Wilson, A. Solletty, C. W. Hallberg, and Sir Arnold T. Wilson, author describes the main characteristics of the Suez Canal and gives some evidences which show that there is a real tendency to divert traffic from the Suez to the Panama Canal route and in part to benefit the United States trade in the Orient at the expense of European countries.

**Hitch M. A.** - The Port of Tientsin and Its Problems [*Portus* Tientsin *quaestionesque ad eum pertinentes*]. 9 figs., 2 tables. Geogr. Rev., XXV, 3, 367-381. New York (1935). **a - 1200**

After a brief introduction, summarizing the navigational and other problems of the port of Tientsin, author deals in particular with the flood problem, the trade of the port, which is illustrated by two tables of which one gives the value of trade and the other the record draft of vessels reaching Tientsin for the years 1910-1933; then Author treats the Hai Ho Conservancy Board and finally recalls the attention to the silting which represents the gravest problem of the port. To conclude, author gives an account of the palliative scheme for the solution for both flood and silt problems and a summary of the proposed permanent scheme put forth by the engineers of the North China River Commission, which could enable Tientsin to become a truly great port.

**Jaja G.** - Il Porto di Genova [*Portus genuensis*]. Num. ill. carte tav., 506 pp. Anonima Romana Editoriale. Roma (1936). **a - 1201**

Descrizione del Porto. Notizie statistiche. Monografia condotta sui piani della geografia delle comunicazioni e della circolazione. Bibliografia.

**Kautz E. A.** - Der Hafen von Vlissingen [*Portus* Vlissingen]. 5 Karten, x + 401 S. G. Fischer. Jena (1934). **a - 1202**

Seine Stellung und Entwicklungsaussichten im internationalen Verkehr.

**Laktionow A. F.** - Navigationsverhältnisse im Russischen Hafen [*De navigationis conditionibus in portu Russico*]. (In Russ.). 1 Karte. Scient. Res. Arct. Exp. « Lomonossow », 1931, Trans. Arct. Inst., XVIII, 105-106. Leningrad (1935). **a - 1203**

Beschreibung des Russischen Hafens auf dem nordwestlichen Ufer von Nowaja Zemlja mit besonderer Berücksichtigung der Navigationsverhältnisse und der besten Ankerstellen.

**Milone F.** - Il porto di Napoli [*Portus Neapolitanus*]. Atti Soc. It. Progr. Sc. (XXIII Riunione, Napoli, 10-17 ottobre 1934–XII), v. II, 1935, p. 28-43. Roma (1935). **a - 1204**

Attraverso l'esame dei dati statistici l'A. cerca di impostare il problema portuale di Napoli nella sua realtà, indicandone le correnti di navigazione che è prevedibile abbiano a svilupparsi di più in avvenire, mettendo in rilievo la stretta indipendenza tra il porto ed il suo retroterra, avvertendo ancora quali industrie del retroterra lascino prevedere un loro naturale sviluppo. Con l'analisi del movimento viaggiatori del porto, l'A. sfronda le cifre di tutto il traffico secondario, che assai poco contribuisce all'economia del porto e si ferma ad esaminare il traffico con l'estero. Passa, quindi, allo studio del retroterra, che distingue in *reale* e *potenziale*, e prospetta la funzione spiccatamente regionale del porto di Napoli.

**Morsier (de) P.** - Le port d'Abidjan et les transports maritimes de la Côte d'Ivoire [*Portus* Abidjan *et subvectiones maritimae in* Côte d'Ivoire]. Photos & cartes. L'Afr. Franç. XLIV Sept., Oct. 547-553, 589-595. Paris (1934). **a - 1205**

**Parde M.** - Le régime de la Garonne [*De regimine Garumnae fluminis*]. 43 fig., 2 cartes h. t. Rev. Géogr. Pyrénées & Sud-Ouest, VI, 2/3, 105-262. Toulouse (1935). **a - 1206**

**Pelli A.** - L'Adriatico e la sua funzione nell'economia italiana [*De Mari Hadriatico eiusque functione quoad oeconomiam Italicam*]. Le Tre Venezie, XI, 3, 118-126. Venezia (1935). **a - 1207**

Il sistema portuale adriatico dal punto di vista dell'economia nazionale. Cenni sui porti jugoslavi. I porti regnicoli più importanti: Bari, Ravenna, Fiume, Trieste, Venezia.

**Philbin G.** - Port Churchill and the Hudson Bay Railway [*Portus* Churchill *et ferrivia in baja* Hudson]. 2 phot. Journ. of Geogr. XXXIII, March, 98-104. Chicago (1934). **a - 1208**

**Pilant P.** - Les Ports de Calais et de Dunkerque en 1933 et 1934 [*Portus* Calais *portusque* Dunkerque *A. 1933 et 1934*]. Géogr., Terre Air Mer. LXVI, 1, 47-49. Paris (1936). **a - 1209**

Activité des ports. Étude de caractère économique.

**Plate M.** - L'aménagement du Weser inférieur et de son estuaire [*De adaptatione fluminis* Weser *eiusque aestuarii*]. 1 fig., 3 pl., 1 carte h. t. Bull. Assoc. Intern. Perm. Congrès de Navig., X, 19, 7-14. Bruxelles (1935). **a - 1210**

**Ponceau Michelle** - Ibiza [*Portus* Ibiza]. 1 carte h. t., 10 fig., Mer et Outre-Mer. Septembre 7-11. Paris (1935). **a - 1211**

Notes historiques, description du port et de la ville.

**Sandiford R.** - Il Canale di Suez e il suo regime internazionale [*Canalis* Suez *eiusque regimen internationale*]. Riv. Maritt. LXVIII, 11, 133-156. Roma (1935). **a - 1212**

**Sibinga Mulder J.** - De geschiedenis van het Panamakanaal [*Historia canalis Panamensis*]. Onze Aarde, 501-514. Amsterdam (1935). **a - 1213**

**Sibinga Mulder J.** - Het Panamakanaal 20 jaar in gebruik; zijn geschiedenis [*Canalis Panamensis 20 recurrente anno ab apertione. Historia*]. Tjidschr. Kon. Ned. Aardr. Gen. Amsterdam LIII, 2, 296. Leiden (1936). **a - 1214**

Conférence avec des projections lumineuses tenue à la Haye le 19 décembre 1935 à la réunion des Sociétés: « Notre Flotte » et « La Marine néerlandaise ».

**Spalikowski E.** - Le Havre [*Portus* Le Havre]. Fig. dess. pl. phot., 182 pp. G. Orobitg. Le Havre (1934). **a - 1215**

**Stevens L.** - Rise of the Port of Vancouver, British Columbia [*De progressibus in portu* Vancouver *in Columbia Britannica*]. Econ. Geogr., XII, 61-70. Worcester (1936). **a - 1216**

**Wallace F. W.** - Canadian Ports and Shipping Directory [*De portibus Canadensibus deque Praefectura navigationis*]. 3 maps on pl., num. figs., 320 pp. Nat. Business Publ., Ltd. Gardenvale, Que. (1935). **a - 1217**

A manual of essential information on Canadian ports and shipping services principally for trade.

**Waltjen K.** - Stadt und Hafen von Bristol. Eine stadt- und wirtschaftsgeographische Untersuchung [*De urbe atque portu* Bristol. *Studium geographicum et oeconomicum*]. Veröff. Geogr. Inst. Albertus-Univ. zu Königsberg, N. F., R. Geogr. 8. Königsberg (1935). **a - 1218**

**Williams Owen Maynard** - The Suez Canal: Short Cut to Empires [*Canalis* Suez *via brevissima ad regiones imperii*]. 1 map, 19 figs. Nat. Geogr. Mag. LXVIII, 5, 611-632. Washington D. C. (1935). **a - 1219**

On hand of numerous illustrations the A. here gives a vivid description of the everyday life and traffic along and through the Suez canal as well as some information concerned with its construction, different projects from about 1300 B. C. to the completion, and some prescriptions and international conventions.

**Wollebaek A.** - Gjennem Panamakanalen [*Canalis Panamensis*]. 1 map, 4 figs. Norsk Geogr. Tidsskr. VI, 2, 86-94. Oslo (1936). **a - 1220**

History; description of the Canal seen from a steamer; hygienical conditions.

**Zajkov B. D.** - The Outflow of the Rivers into the Laptev and East-Siberian Seas and the Amount of Heat Carried by the Rivers into These Seas [*De efflussu fluminum in mare* Laptev *et mare Sibiricum Orientale. Agitur etiam de summa calorica quae fluminibus in haec maria fertur*]. Trans. Arct. Inst., XXXV, 51-84. Leningrad (1936). **a - 1221**

Results of observations on the river outflow in the seas mentioned in the title; influence of the climate and of the permanent congelation on this outflow; the irregularity in the distribution of the outflow during the year due to the physical-geographical particularities of the territory; approximate data on the number of calories discharged yearly by the rivers into the Laptev and the East-Siberian Sea.

**Istituto per gli Studi di Politica Internazionale** - Il Canale di Suez nella storia, nella economia, nel diritto [*Canalis* Suez. *Historia, oeconomia, ius*]. 14 ill., 2 tav. f. t. Milano (1935). **a - 1222**

Ambiente fisico. Storia. Amministrazione. Traffico. Avvenimenti politici.

**L. Br.** - Le Canal de Suez. Trafic et travaux récents [*Canalis* Suez. *Frequentia mercium atque opera recentiora*]. 3 tabl. Rev. gén. Sc. pures et appl., XLVI, 22, 613-614. Paris (1935). **a - 1223**

Données extraites du rapport annuel présenté par le Conseil d'administration du canal concernant la répartition des traversées par rapport au tirant d'eau, marche effective et séjour des navires et mouvement du transit et des passagers.

**V. C.** - Chemins de fer et ports marocains [*Viae ferratae portusque maritimi mauretanici*]. Rev. Scient., LXXIII, 5, 168. Paris (1935). **a - 1224**

Bref aperçu du développement des ports maritimes marocains et de leur importance relative pour la vie économique du protectorat; les voies ferrées marocaines qui desservent les ports.

**An.** - Trafic des ports maritimes français en 1934. Trafic comparatif du Rhin et du réseau fluvial français pendant les années 1910-1913 et 1919-1934. Activité des ports fluviaux [*Frequentia mercium quae pertinet ad portus maritimos francogallicos A. 1934*]. 1 pl. La Navig. du Rhin, XIII, 4, 115-118, 120-129. Paris (1935). **a - 1225**

**An.** - L'activité des ports français en janvier 1935 [*Activitas Gallicorum portuum mense Januario A. 1935*]. 1 tabl. Rev. Scient., LXXIII, 8, 288. Paris (1935). **a - 1226**

Données statistiques.

**An.** - I porti adriatici ed il loro attrezzamento [*De portibus maris hadriatici eorumque muneribus*]. 32 fig. Le Tre Venezie, 3, 136-154. Venezia (1935). **a - 1227**

Venezia, Trieste, Fiume, Pola; costa Istriana, Zara: litorale fra Monfalcone e Brindisi.

**An.** - Un puente sobre el Pequeño Belt [*De ponte in Parvo* Belt]. Iberica, XXIII, 1112, 185. Barcelona (1936). **a - 1228**

Información sobre la construcción para los ferrocarriles del Estado danese de un puente sobre el Pequeño Belt para unir la Jutlandia con la isla de Fjonia.

**An.** - El canal Adolfo Hitler entre el Oder y la Alta Silesia [*Canalis Adolphus* Hitler *inter* Oder *et Slesiam Superiorem*]. Ibérica, XXIII, 1117, 262. Barcelona (1936). **a - 1229**

Étant donné que les derniers travaux ont rendu le fleuve Oder navigable pour des vaisseaux de 800 tonnes, le Gouvernement allemand a cru opportun de réunir la région houillière de la Haute Silésie à ce fleuve à l'aide d'un canal de 50 km., dont la construction sera terminée en 1938. Dans la présente note sont données les caractéristiques principales du canal projeté.

**An.** - Il Canale di Suez nella storia, nella economia, nel diritto [*Canalis* Suez. *Historia, Oeconomia, Ius*]. Fotogr., tav. e 2 f. t., documenti, 104 pp. Ist. Studi Polit. Int. Milano (1936). **a - 1230**

Storia degli avvenimenti dalla campagna napoleonica in Egitto al taglio dell'istmo e all'ultimo allargamento del canale; dei contrasti d'interesse fra le Potenze principali.

# CHEMIA ET PHYSICA MARIS

## Chemia et Physica - Salsedo et temperatura - Transparentia - Densitas - Evaporatio - Aquae chemici componentes.

**Abe T.** - Seasonal Variations in the Chemical Elements of Sea Water at the Mouth of Singawa-Wan [*De variationibus pro anni tempore in elementis chemicis aquae marinae ad accessum fluminis* Singawa-Wan]. (In Jap). 11 figs., 1 table. Journ. Oceanogr., VIII, 1, 137-154. Kobe, Jap. (1935). **a - 1231**

**Allen W. E.** - « Yellow Water » in la Jolla Bay in 1935 [*De aqua flava in* Jolla Bay, *A. 1935*]. Science, LXXXII, 2127, 325-326. New York (1935). **a - 1232**

Some information on the phenomenon noticed during the last week of July and the first week of August, due to Flagellates of which, however, no satisfying identification was found.

**Attimonelli R.** - Ricerche sull'inquinamento dell'acqua di mare della zona costiera di Bari [*Investigationes in inquinationem aquae marinae ad litora Barii*]. 1 fig. Ig. Mod., XXXIII, 7, 311-316. Genova (1935). **a - 1233**

L'A. ha determinato a mezzo della ricerca del colititolo l'inquinamento dell'acqua di mare della zona costiera di Bari, ha delimitato approssimativamente la zona di autodepurazione ed ha messo in evidenza le cause dell'inquinamento facendo accenno ai provvedimenti tecnici adatti a meglio proteggere la costa dal pericolo infettivo e putrefattivo.

**Bein W.** - Physikalische und chemische Konstanten des Meerwassers [*De constantibus physicis et chemicis aquae marinae*]. 7 Abb., 5 Taf. Veröff. Inst. Meeresk., N. F., A. Geogr.-naturw. Reihe, 28, 36-190, Berlin (1935). **a - 1234**

I. Erfahrungen über die Unzulänglichkeit der bisherigen Dichtebestimmungen von Meerwasserproben - II. Neue Tafeln der Dichte und des spezifischen Volumens von Meerwasser - III. Die zu ermittelnden Konstanten des Kompensators für Meerwasser - IV. Die optischen Konstanten des Meerwassers als Grundlage für die Eichung des Interferometers - V. Der elektrische Widerstand des Meerwassers in einem Schwingungskreis und einer Kurbelwiderstandsbrücke - VI. Die Ergebnisse.

**Bein W., Hirsekorn H. G. & Möller L.** - Konstantenbestimmungen des Meereswassers und Ergebnisse über Wasserkörper [*De determinatis constantibus aquae marinae deque resultatibus obtentis a studiis massarum aquosarum*]. 45 Abb., 14 Taf. Veröff. Inst. Meeresk., N. F., A. Geogr.-naturw. Reihe, 28, iii-viii, 1-239, Berlin (1935). **a - 1235**

Bericht über die im Anschluss an die « Meteor » - Expedition von 1928 bis 1934 in Zusammenarbeit zwischen der Physikalisch-Technischen Reichsanstalt und dem Institut für Meereskunde ausgearbeiteten Methoden zur Bestimmung der Meereswasserdichte, über die für die Berechnung der Beobachtungsergebnisse ermittelten notwendigen Konstanten und die aufgestellten Tafeln für die Reduktionen. An Hand von Analyse der aus verschiedenen Teilen des Ozeans erhaltenen Wasserproben ist auch ein Beitrag zur Lösung der Frage einer geographischen Verschiedenheit der Konstanten und der dadurch möglichen Charakterisierung von Wasserkörpern gegeben.

**Bigelow H. B. & Sears M.** - Physical Oceanography of the Waters on the Continental Shelf, Cape Cod to Chesapeake Bay [*De oceanographia physica quoad aquas plateae continentalis a* Cape Cod *ad* Chesapeake Bay]. Woods Hole Oceanogr. Inst., App. Rep. 1934, 19. Woods Hole, Mass, (1935). **a - 1236**

Information on the completion of the report on salinity, based on station-data of « Albatross II » and of « Atlantis ».

**Blinov L. K.** - Expedition Potentiometer [*De apparatu, nomine potentiometro*]. (In Russ., Engl. Summ.). 4 figs., 1 table. Bull. State Oceanogr. Inst. U. S. S. R., 18, 27-36. Moskva (1934). **a - 1237**

Description of a simple arrangement constructed by the author for EMF determinations on board of ship (one of the most important problems of marine hydro-

chemistry) and which eliminates the great sensitivity of electric registration instruments to the swinging and vibration of the ship. It is a common compensatory arrangement, into the secondary circuit of which a telephone-tube is inserted instead of the commonly used null-instruments.

**Brandt (v.) A.** - Hydrographische Untersuchungen des Fischerei-Instituts der Universität Königsberg Pr. im Jahre 1935 in der mittleren Ostsee [*Investigationes hydrographicae in mari Baltico centrali ab Instituto pro piscatione peractae ad Universitatem Kœnigsbergensem pertinente, A. 1935*]. Ann. d. Hydrogr., LXIV, 3, 115. Berlin (1936). **a - 1238**

Kurze Notiz über die für das Studium der Wanderungen der Küstenlachse durchgeführten Untersuchungen der chemisch- physikalischen Verhältnisse.

**Bravo G. A.** - L'elettrodo ad antimonio per le misure di pH [*De elettrodo cum antimonio ad mensuras peragendas formulae* pH]. 521-523. La Chim. e l'Ind., 8. Milano (1935). **a - 1239**

Viene studiato il comportamento dell'elettrodo ad antimonio a varie temperature ed in presenza di sali diversi; e vengono dati alcuni suggerimenti pratici per ottenere la massima precisione possibile.

**Broujevitch S.** - L'aspect hydro-chimique de la Caspienne méridionale [*Aspectus hydro-chemicus regionis Caspicae meridionalis*]. (En russe). 1 carte, 27 tabl. Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr. Etat), LXVIII, 1, 5-34. Leningrad-Moskva (1936). **a - 1240**

Après une brève énumération des particularités physico-géographiques de la Mer Caspienne, l'A. communique les résultats des observations océanographiques faites à bord du vaisseau « Sextant » dans la partie méridionale de cette mer au mois d'août 1933. Sont communiqués les résultats des observations sur la température, la salinité, la réaction active, l'alcalinité, le contenu en $CO_2$ libre, en $O_2$, en $H_2S$, en sels ammoniacaux, en ammoniaque albuminoïde, en nitrite, en nitrates, en phosphates, en acide silicieux; l'A. décrit aussi la composition des couches d'eau voisines au fond de la mer, les oscillations journalières de $O_2$ et de pH, illustre la réaction active (pH) des terrains du fond de la mer et leur potentiel acidifiant et reconstituant; il donne en outre, un calcul hydro-chimique de la productivité du phytoplankton et, pour conclure, indique les caractéristiques hydro-chimiques essentielles qui distinguent la partie considerée de la Mer Caspienne. Les observations se rapportent essentiellement à deux sections latitudinales, à voire; section de l'Ile Jiloj au Cap Kouli selon 41° 4′ N, et section du rocher Kourinskij à l'Ile Ogourtchinskij, à 39°50′ N environ.

**Chauchard P.** - Les facteurs de variation du pouvoir réducteur de l'eau de mer (Etude comparative de la teneur des eaux marines en matières organiques dissoutes). [*De variatione potentiae reductricis aquae marinae. Studium comparatum quoad tenorem aquae marinae in substantiis organicis solutis*]. 10 fig., nombr. tabl. Ann. Inst. Océanogr., XV, 3, 329-410. Paris (1935). **a - 1241**

I. Les matières organiques dissoutes dans l'eau de mer. L'appréciation de la teneur en matières organiques dissoutes. - II. Technique de la mesure du pouvoir réducteur de l'eau de mer. Expression des résultats. - III. Variations du pouvoir réducteur de l'eau d'une station type. - IV. id. dans la région de Saint-Servan. - V. id. dans d'autres régions. - VI. id. des eaux de la Baie de Villefranche (Alpes-Maritimes). - VII. L'évolution des matières organiques dissoutes dans l'eau de mer. - VIII. Le pouvoir réducteur et les autres facteurs du milieu marin. - Conclusions. - Bibliographie.

**Chokalski J.** - Océanographie de la Mer Noire [*De oceanographia Ponti Euxini*]. 15 pp. C. R. Dél. Sov. Congr. Int. Géogr. Varsovie, Inst. Scient. Publ. Gr. Atl. Sov. Léningrad (1934). **a - 1242**

**Chokalski J.** - Les travaux océanographiques sur les mers de l'U. R. S. S. [*De operibus oceanographicis in U. R. S. S.*]. 7 pp., C. R. Dél. Sov. Congr. Int. Géogr. Varsovie; Inst. Scient. Publ. Atl. Sov. Léningrad (1934). **a - 1243**

**Dakin W. J. & Colefax A. N.** - Plankton Production and the Nitrate Nitrogen and Phosphate Cycles in the Pacific Ocean off New South Wales [*De productione planctonica eiusque correlatione cum quantitate nitrati nitrogenii et phosphori in Oceano Pacifico apud* New South Wales]. Nature, CXXXVI, 3435, 339. London (1935). **a - 1244**

Short note on records concerning relation between the amount of nitrate nitrogen and phosphate and plancton production in European seas and the Pacific Ocean.

**De Buen & Navarro F. De P.** - Condiciones oceanográficas de la costa catalana entre la frontera francesa y el Golfo de San Jorge [*De condicionibus oceanographicis litorum Catalanorum inter fines gallos et sinum St. Georgii*]. 20 fig., tav., 1 lam. Trab. Inst. Españ. Oceanogr., 14, 5-47 Madrid (1935). **a - 1245**

Discusion de los resultados obtenidos en 1933: 1° Régimen térmico superficial; 2° Salinidad del agua superficial: 3° Régimen térmico, salino y de densidades entre la superficie y 500 metros de profundidad. 4° El régimen de corrientes en la costa Catalana. Resultados obtenidos en 1934: Comparacion del régimen marino superficial en Cataluña con el de otras regiones del Mediterraneo occidental.

**De Las Heras A. R.** - Tablas para el cálculo de la densidad del agua de mar a 0° C., partiendo de las lecturas en el refractómetro de immersión a diferentes temperaturas [*Tabulae ad calculandam densitatem aquae marinae 0° C. Calculi ducuntur ex perscriptionibus apparatus refractometrici immergibilis, variis temperaturis*]. Tabl.. Inst. Esp. Oceanogr., Notas Resúm., II, 81, 1-23 Madrid (1934). **a - 1246**

Amplación de las tablas de Vaurabourg publicadas en el « Bulletin de l'Institut Océanographique », Monaco, n° 934, 1921, para obviar el inconveniente del procedimiento refractométrico, calculando los valores de la densidad de agua de mar correspondientes a décimas de división de la escala del refractómetro.

**Ercegovic A.** - Recherches sur l'alcalinité et l'équilibre de l'acide carbonique dans les eaux côtières de l'Adriatique oriental moyen [*Investigationes in alcalinitatem et aequilibrium acidi carbonici in aquis litoreis maris Hadriatici orientalis*]. 27 fig., tabl. Acta Adriatica, 7, 1-83. Split (1935). **a - 1247**

L'importance du calcaire et de l'acide carbonique pour les phénomènes géochimiques comme pour ceux biologiques. Première partie: Recherches sur l'alcalinité: Discussion des résultats (les causes de variations de la teneur relative et absolue en carbonate de chaux et de la teneur en borates). Deuxième partie: Recherches sur l'équilibre de l'acide carbonique. Discussion des résultats (les causes de variations du pH et de la tension de $CO_2$ et les causes de variations de l'acide carbonique total et de ses composantes. Aperçu sommaire des résultats. Bibliographie. Tableaux.

**Espil L.** - Chimie de l'eau de mer et des algues marines [*Chemica aquae marinae et algarum marinarum*]. Tables. Bull. Stat. Biol. Arcachon, XXXI, 81-100. Bordeaux (1934). **a - 1248**

Résultats de recherches effectuées au cours des années 1931–1932 au laboratoire de l'École des Hautes Études, à Arcachon, sur la composition de l'eau de mer (1) au point de vue minéral et (2) au point de vue organique, ainsi que des tissus des algues. L'étude de la composition en ions minéraux a permis de mettre en lumière les variations très nettes des rapports ioniques entre les cations principaux, tandis que l'étude du carbone organique a permis d'établir que les quantités de matière organique dans l'eau de mer sont relativement importantes.

**Frezouls J.** - Le dosage du brome dans l'eau de mer par colorimétrie avec le réactif de Denigès-Chelle [*De bromo eiusque gradatione in aqua marina per colorimetriam cum reagente* Denigès-Chelle]. 2 tabl. Stat. Océan. Salammbô, Notes 28, 3-15. Tunis (1934). **a - 1249**

Méthodes de dosage de petites quantités de brome combiné en présence d'un excès de chlorures. Méthode colorimétrique de Denigès-Chelle. Action de l'acide de Caro sur les bromures et chlorures en solution. Recherche et dosage du brome. Résultats obtenus avec quelques échantillons d'eau de mer. Conclusions: l'A. propose la substitution de l'acide de Caro au mélange sulfo-chromique pour la libération du brome en vue de sa recherche et de son dosage avec la méthode Denigès-Chelle. Cette méthode colorimétrique donne des résultats plus exacts que les autres méthodes exposées, car elle supprime l'influence perturbatrice des chlorures sur le dosage.

**Gamba P.** - Sulla temperatura superficiale dell'acqua del mare nei suoi rapporti con l'afflusso idrico dal retro-terra e con le condizioni meteorologiche locali [*De temperatura ad superficiem aquae marinae pro afflussu hydrico retroterrae et condicionibus meteorologicis localibus*]. Mem. R. Uff. Centr. Meteorol. & Geofisica, Serie III, v. V, 1-20. Roma (1935). **a - 1250**

Esame di dati ricavati nella stazione balnearia di Grado, nella quale sono state organizzate e si compiono regolarmente osservazioni meteorologiche, come in altre stazioni balneari italiane.

**Goedecke E.** - Der Kalkgehalt im Oberflächenwasser der Unterelbe und Deutschen Bucht [*De continentia calcica in aqua ad superficiem fluminis* Elbe *inferioris et in* Deutsche Bucht]. 4 Taf. a. T. Aus d. Arch. Dtsch. Seew., LV, 1, 1-37. Hamburg (1936). **a - 1251**

Der Begriff Alkalinität und Kalkgehalt. Aufgabe der Untersuchung. Methodik. Verteilung des Kalkgehalts. Die Beziehungen zwischen Kalkgehalts- und Planktonverteilung.

**Granqvist G.** - Regular Observations of Temperature and Salinity in the Seas around Finland July 1934-June 1935 [*Observationes temperaturae et salsedinis marium quae Finlandiam circumdant a mense Julio 1934 ad mensem Junium 1935 peractae*]. 42 pp. Merentutk. laitoks. Julk. (Havsforskn. inst. skr.), 105. Helsinki (1935). **a - 1252**

General survey: Localities of observation, observations and instruments, computation of observations and arrangement of tables. Depth- and surface observations at year- and summer-stations.

**Hirsekorn H. G. & Möller L.** - Methoden und Instrumente zur Meerwasser-Dichtebestimmung [*Rationes et instrumenta ad aquae marinae densitatem determinandam*]. 6 Taf., 9 Abb., 5 Taf. Veröff. Inst. Meeresk., N. F., A. Geogr.-naturw. Reihe, 28, 8-32. Berlin (1935). **a - 1253**

I. Die optischen Methoden und Instrumente (v. H. G. Hirsekorn): A. Die Hallwachs-Methode, B. Die Interferenz-Methode, C. Das Meerwasser-Interferometer. - II. Die elektrische Leitfähigkeits-Apparatur (H. G. Hirsekorn): 1. Die Methode, 2. Die Instrumente. - III. Die Chlortitrationsmethode (L. Möller).

**Hoeven (van der) J.** - Hoe brak wordt het Ijsselmeer? Naschrift door J. Th. Thijsse [*Quantum Mare* Ijssel *fit salmacidum?*]. 3 Abb. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam, LII, 6, 778-787. Leiden (1935). **a - 1254**

Einige Bemerkungen zum Artikel von J. Th. Thijsse « Die ersten Jahre vom Ijsselmeer » (diese Ztschr. 4, 481-507) mit besonderer Berücksichtigung des künftigen Salzgehaltes des Ijsselmeeres und des Einflusses, den die Senkung sowie ein eventuelles nordöstliches Eindeichen auf den Salzgehalt haben können. Erwiderungen von Thijsse in der Nachschrift.

**Kaljanov V. P.** - Geomorphological and Hydrological Observations on the Research-Vessel « Albatross » during the Summer 1932 in the Obj-Enissejskaja Bay and the adjacent Area of the Kara Sea [*Observationes geomorphologicae et hydrologicae in navi* « Albatross » *aestate 1932 in baja* Obj- Enissejskaja *et in adiacente regione Maris Karensis*]. (In Russ., Engl. Summ.). 17 figs. Zemlevedenije, XXXVI, 3, 211-258. Moskwa-Leningrad (1934). **a - 1255**

**Kimura K.** - Hydrographical Observation near Awasime Isle situated at the North-eastern End of Suruga Bay. (Further Note I). Daily Records in 1933 and 1934 [*De observatione hydrographica apud insulam* Awasime *in extrema regione nordorientali* Suruga. *Nota additicia Iª* (*Registrationes diuturnae, A. 1933 et 1934*)]. (Jap. Text., Engl. Rés.). 5 tabl., 2 diagr. Bull. Jap. Soc. Scient. Fish., IV, 1, 54-60. Tokyo (1935). **a - 1256**

Temperatures, salinities, transparence of water, currents, plankton etc. for two periods, the convection period from mid-April to early October, and the stratification period for the rest of the year.

**Kimura K.** - Hydrographical Observations near Awasima Isle situated at the North-eastern End of Suruga Bay. (Further Note II). Variations of and Mutual Relations among Water Temperature, Salinity and Transparency [*De observationibus hydrographicis apud insulam* Awasima *in extrema regione nord–orientali* Suruga. *Nota additicia IIª* (*Variationes et correlationes mutuae quoad aquae temperaturam, salsedinem et transparentiam*)]. Tabl., 7 figs. Bull. Jap. Soc. Scient. Fish., IV, 5, 339-352. Tokyo (1936). **a - 1257**

The remarkable changes in the temperature of the lower layers of water observed in July 1933 and August 1934 seem to be in relation with the tidal currents coming from the bottom of the wider north eastern area of Suruga Bay. The quality of the water is determined by the proportion of mixing of different water-layers and river water.

**Kondyrev N. V.** - Chemical Analysis of Water of the Japan Sea [*Analysis chemica aquae Maris Japonici*]. (In Russ., Engl. Summ.). 9 tabl. Bull. Pacif. Comm. Acad. Sc. USSR., 3, 9-16. Leningrad (1934). **a - 1258**

During the Oceanographical Expedition of the Pacific Committee of the Academy of Science of the USSR organized in 1928 jointly with the Hydrographic Department

of the Navy for the study of the Japan Sea, four samples of water were taken especially for the chemical analysis from the depth of 10 meters at different hydrological stations in the northern part of the Japan Sea. In the present paper author deals with the detailed analysis undertaken on these samples, and illustrates the method applicated and the results obtained.

**Laktionow A.** - Tiefseebeobachtungen [*De observatione aquarum perallarum*]. (In Russ. - Dtsch. Rés.). 27 Fig., zahlr. Tab. Scient. Res. Arct. Exped. « Lomonosow » 1931. Trans. Arct. Inst., XVIII, 5-63. Leningrad (1935). **a - 1259**

Ergebnisse der hydrologischen Tiefseebeobachtungen während der Expedition auf dem Schiffe « Lomonossow » im Jahre 1931 nach dem nördlichen Teile des Karischen Meeres. Temperatur, Salzgehalt, Sauerstoffgehalt, Alkalinität, Wasserstoffionen-Konzentration und Phosphatgehalt. Bei den Beobachtungen wurden Wasserschöpfer System Nansen und Kippthermometer Richter und Wiese benutzt.

**Laktionow A.** - Beobachtungen über die Oberflächenschicht des Barents-Meeres im Jahre 1931 [*De observatis stratis superficialibus Maris* Barents *nomine A. 1931*]. (In Russ., Dtsch. Rés.). 2 Fig., Tab. Scient. Res. Arct. Exp. « Lomonossow », 1931, Trans. Arct. Inst., XVIII, 65-84. Leningrad (1935). **a - 1260**

Messungen der Temperatur der oberen Wasserschicht und Bestimmungen von Salzgehalt und Alkalinität. Die Temperatur wurde während der ganzen Strecke annähernd alle 10 Meilen gemessen und die Bestimmung des Salzgehaltes und der Alkalinität ungefähr alle 20 Meilen gemacht.

**Laktionow A.** - Hydrochemische Untersuchungen während der « Sibirjakow » - Expedition 1932 [*Investigationes hydrochemicae peractae perdurante navigatione navis* « Sibirjakov », *A. 1932*] (In Russ., Dtsch. Rés.). 6 Fig., 2 Tab. Trans. Arct. Inst., XXXIII, 65-74. Leningrad (1936). **a - 1261**

25 Tiefseestationen wurden ausgeführt mit Temperatur- und Salzgehalt-Beobachtungen (über die im Band X der « Trans. Arct. Inst. » bei W. Wiese berichtet worden ist), sowie Beobachtungen über Sauerstoffgehalt, Alkalinität, Phosphatgehalt, Azot und pH. Die Ergebnisse dieser letzteren Beobachtungen sind hier wiedergegeben.

**Lavrentjev** - Sur les travaux hydrologiques dans les Karskija Vorota [*De operibus hydrologicis peractis in regione nomine* Karskija Vorota]. (En russe). 1 carte. Bull. Arct. Inst., V, 11, 395-396. Leningrad (1935). **a - 1262**

Bref compte rendu de l'expédition des bateaux à moteur « Pakhtousov » et « Arktik », envoyés par la Section Hydrologique de l'Institut Arctique dans le but d'étudier les courants de marée, les conditions thermiques et chimiques des eaux du détroit Karskija Vorota entre la Mer de Kara et la Mer de Barents. Le résumé des principales sections hydrologiques effectuées est aussi donné. Les travaux avaient surtout un caractère préparatoire en vue de l'étude de l'échange des eaux entre les deux mers qu'unit le détroit exploré.

**Liebman E.** - Oceanographic Observations on the Palestine Coast [*Observationes oceanographicae peractae apud litora Palestinae*]. 2 graphs, 1 tabl. Rapp. Pr. - Verb. Cons. Expl. Scient. Méditerranée, IX (n. sér.), 181-186. Paris (1935). **a - 1263**

These observations are the result of two years' investigations undertaken by the A. during his work in the Fisheries Service of the Palestine Government. Methods of work. Temperature. Salinity. Plankton.

**Ljvov I. I.** - Observations sur les couches superficielles de l'eau dans la Mer de Kara en 1934 [*Observationes de stratis superficialibus aquae Maris* Kara]. (En russe). « Sadko » pod Sov. Flag. (« Sadko » sous Band. Sov.), 57-72. Ed. Glavsevmorputj. Leningrad (1935). **a - 1264**

**Lotze F.** - Die Herkunft der Salze im Weltmeer [*De sale oceanico eiusque origine*]. 2 Abb. Natur u. Volk, LXVI, 2, 71-78. Frankfurt a. M. (1936). **a - 1265**

Als Gesamtergebnis seiner Betrachtung stellt Vf. fest, dass die Metall- Ionen der Meeres- Salze den festen Primärgesteinen entstammen, wogegen die Bestandteile der Säurereste fortlaufend durch den Vulkanismus geliefert werden. (Vf.).

**Lumby J. R.** - Salinity and Temperature of the English Channel. Book and Atlas of Charts. [*Salsedo et temperatura Freti Britannici*]. Many fig. & tables. Fish. Invest., Ser. II, vol. XIV, 3, 1-58. London (1935). **a - 1266**

Estimation of mean values for the upper water layer for the 25- Year Period 1903-1927. The atlas of charts is separate.

**Maiorca V.** - Saline siciliane [*De salinis siculis*]. Ann. Merceol. Sicil., II, 102-144. Catania (1932-34). **a - 1267**

Delle saline marittime in generale; impianto di una salina e utilizzazione delle acque madri. La piscicoltura nelle saline. Importanza terapeutica delle saline. L'esportazione di sal marino. Le saline di Trapani. Le saline di Augusta e di Magnisi. La questione del monopolio.

**Maldura C. M.** - Ricerche chimiche sulla laguna di Orbetello in rapporto alla biologia. Nota I [*Investigationes chemicae in lacuna orbetellana pro biologia. Nota I*ª]. Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Mat. Nat., ser. 6, XXII, 1-2, 64-68. Roma (1935). **a - 1268**

Nella presente nota vengono prese in considerazione le variazioni stagionali della temperatura, della salinità, del rapporto solfati-cloruri e dell'ossigeno delle acque della laguna di Orbetello. L'A. mette in evidenza come certe apparenti anomalie siano in rapporto con i fenomeni vitali della laguna.

**Maldura C. M.** - Ricerche chimiche sulla laguna di Orbetello in rapporto alla biologia. Nota II [*Idem. Nota II*]. Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Mat. Nat., ser. 6, XXII, 3-4, 140-145. Roma (1935). **a - 1269**

A seguito di una precedente nota l'A. prende in esame il contenuto in azoto ammoniacale, nitroso e nitrico, in fosforo e in silice delle acque della laguna di Orbetello. Dei suddetti composti viene anche seguito l'andamento stagionale in rapporto allo sviluppo della vegetazione. Quindi l'A. mette in relazione con i fenomeni fotosintetici i valori del pH e dell'alcalinità, osservati mensilmente, e considera l'influenza che detti valori possono avere sulla presenza e lo sviluppo di certi molluschi riscontrati nelle acque di Orbetello.

**Maldura C.** - Sull'unificazione dei metodi di analisi dei sali nutritivi e della silice in soluzione nell'acqua di mare [*De unificandis rationibus pro analysi salis quod alimentum praebet atque analysi silicis solutae in aqua marina*]. Boll. Pesca Piscicolt. e Idrobiol., XI, 424-433. Roma (1935). **a - 1270**

L'A. passa in rassegna i metodi analitici in uso per la determinazione dei sali nutritivi nell'acqua di mare, e cioè quello di Denigès modificato da Atkins per i fosfati, quello di Denigès modificato da Harvey per i nitrati, quello

di Griess-Ilosvay, per i nitriti, quello di Nessler per l'ammoniaca e quello di Diénert e Wandenbulke riesaminato da Atkins per i silicati. Nota come analisi simili siano assai scarse per il Mediterraneo, e come queste ricerche assumano un carattere di particolare attualità in vista della prossima riunione plenaria a Bucarest della Commissione Internazionale per l'esplorazione del Mediterraneo.

**Maldura C. M.** - Etude de la valeur du stock biologique de la Méditerranée, en relation avec les quantités de nitrates et phosphates dissous [*De aestimatione quoad* stock *biologicum maris Mediterranei pro nitratis et phosphatis*]. 7 pp. Rapp. Réun. Scient. Comm. Int. Expl. Mer. Assemblée Bucarest, 1935. Paris (1935). **a - 1271**

**Matsudaira Y.** - Report of the Surface Observations Along the Route of the 18th Cruise of the Training Ship « Shintoku Maru » [*Relatio de observationibus praeter cursum maritimum XVIII$^{ae}$ navigationis speculatoriae a navi* « Shintoku Maru »]. (In Jap. Engl. Abstr.). 1 fig., 1 table, 1 pl. Journ. Oceanogr., VIII, 1. 3-4 & 113-136, Kobe, (1935). **a - 1272**

Account of the surface observations taken along the route across the North Pacific Ocean from Kobe to San Diego and then down in the South Pacific Ocean to Auckland, New Zealand. The cruise started on May 10th and finished on October 15th 1933. In this report meteorological observations are added to the oceanographical ones; they show the conditions of the seas during the so-called « north-summer », and emphasize above all the annual changes in the North Pacific.

**Matsue Y.** - On a Colorimetric Method for the Determination of Hydrogen Ion Concentration of the Sea Water by using Palitzsch's Buffer Solutions and Phenolphthalein [*De methodu quadam colorimetrica ad concentrationem ionhydrogenicam aquae marinae determinandam*]. (In Jap., Engl. Rés.). 2 figs. 4 tabl. Bull. Jap. Soc. Scient. Fish. II, 5, 251-256. Tokyo (1934). **a - 1273**

A. has studied the relation between colour ratio and its corresponding pH-value of the seawater as determined by Brandes with Palitzsch's buffer solution (boric acid-borax mixtures) and found that pH of it is a logarithmic function of $\alpha$ within a range 8.08-8.60 but not a linear one as obtained by Brandes.

**Mazure J. P.** - Onderzoekingen betreffende de op het Ijsselmeer te verwachten chloorgehalten [*Investigationes de continentia chlori quae a mari* Ijssel *obtineri potest*]. Water, Bodem, Lucht 25, 9. Amsterdam (1935). **a - 1274**

**Mc Donald W. F.** - Seasonal Variation in North Atlantic Surface-Temperatures [*De variatione pro anni tempore temperaturarum ad superficiem Oceani Atlantici Sept.*]. 11 figs. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 228-239. Washington D. C. (1935). **a - 1275**

The author illustrates the seasonal variation in North Atlantic surface-temperatures on hand of data discussed in the paper and reported on 11 charts, which reproduce the annual range of temperatures, the average monthly temperature curves, the epoch of maximum temperatures, those of inception of rising temperatures, the annual summary of temperature departures from latitude normals, the average frequency of larger anomalies (annual basis - June to November), the temperature departures experienced in January 1932, the distribution of larger anomalies (autumn 1932 and 1933), the two-year summary of larger anomalies for 1932-33. In his conclusions author claims that the causes and meaning of the demonstrated departures from the normal are entirely unexplored and constitute problems that invite further study in the hope of finding significant relations between atmospheric events and extensive variations in ocean-surface temperature.

**Mitchell P. H.** - Buffer Capacity of Sea Water [*De peculiaritate aquae marinae quae anglice dicitur* Buffer Capacity *idest capacitas occludendi*]. Woods Hole Oceanogr. Inst., App. Rep. 1934, 24. Woods Hole, Mass. (1935). **a - 1276**

Summary of investigations carried out in 1934 in order to test the accuracy and the applicability of recently published methods of determination of the specific buffer capacity and the pH of sea water.

**Möller L.** - Ueberblick über Methoden direkter und indirekter Dichtebestimmungen des Meerwassers [*Conspectus rationum pro determinatione directa et indirecta densitatis aquae marinae*]. Veröff. Inst. Meeresk., N. F., A. Geogr.-naturw. Reihe, 28, 1-7. Berlin (1935). **a - 1277**

Kurze Uebersicht der entwickelten Methoden, um aus der Wasserschichtung, d. h. der Anordnung seiner Dichte, Rückschlüsse auf Bewegung der Wasserschichten ziehen zu können.

**Möller L.** - Zur Charakteristik der Wasserkörper des Atlantischen Ozeans [*De peculiaritatibus massarum aquosarum Oceani Atlantici*]. 28 Abb., 2 Tab. Veröff. Inst. Meeresk., N. F., A. Geogr.-naturw. Reihe, 28, 191-239. Berlin (1935). **a - 1278**

Bericht über den Versuch die Dichte des Ozeans in vertikalen Kurven und Schnitten auf Grund der durch Messungen mit dem Interferometer und durch Chlortitration erhaltenen Werte darzustellen, mit besonderer Berücksichtigung des Wasserkörpers des Atlantischen Ozeans in den äquatorialen und den nördlichen Breiten. Ausserdem sind die Ergebnisse einer gleichzeitigen Bestimmung von Chlorgehalt und Dichte einiger atlantischen Wasserproben mitgeteilt.

**Mosby H.** - Scientific Results of the Swedish Norwegian Arctic Expedition in the Summer of 1931. Part XIII. Physical Oceanography [*Resultatus scientifici ex navigatione ad regiones arcticas a Suetiis et Norvegis peracta, aestate 1931. Pars XIII. Oceanographia physica*]. 4 figs. Geogr. Ann., XVIII, 1, 20-29. Stockholm (1936). **a - 1279**

103 hydrographical stations with determinations of temperature and salinity, in most cases also of oxygen, hydrogen ion concentration and phosphates at different depths have been taken north of West Spitsbergen and North East Land, in Hinlopen Strait and adjacent fiords, in the northern Barents Sea between North East Land and Franz Joseph Land and in Cambridge Channel, Franz Joseph Land. Soundings and current measurements.

**Namekawa T.** - A Theory of the Annual Variation of Temperature of Ocean and Lake. [*De variatione annua temperaturae oceani et lacus*]. 1 fig., 1 table. Mem. Coll. Sc., A. XVIII, 239-245. Kyoto (1935). **a - 1280**

Author adds to L. F. Richardsons's equation of eddy transfer of heat for mean state, a new term of the upward flux of heat due to the spontaneous mixing occurring only in the cooling stage of water, and in such a way obtains approximately the annual variations of water temperature in ocean and lake. He verifies the solution obtained by an actual example and gives also a physical explanation of the vertical distribution of the annual mean temperature and a new method of deriving the mean value of eddy diffusivity.

**Navarro F. de P.** - Nuevos datos sobre la continua variaciòn de la temperatura de las aguas submarinas en la bahia de Palma de Mallorca [*De variatione continua temperaturae aquarum submarinarum in sinu Majorchino*]. 10 fig., 11 quadr. Inst. Españ. Oceanogr., Notas y Resum., II, 90, 1-30. Madrid (1935). **a - 1281**

I. Antecedentes. — II. Exposiciòn de los resultados adquiridos (1934). — III. Conclusiones.

**Okada T.** - Report of the Oceanographical Observations Taken on Board R. M. S. « Syunpû Maru » in the Ômura-Wan in November and December 1931 [*Relatio de observationibus oceanographicis in navi peractis* « Syunpû Maru » *in* Ômura-Wan, *mensibus Novembri et Decembri* 1931]. (In Jap. Engl. Abstr.). 6 tables, 50 pls. Journ. Oceanogr., VIII, 1, 1-64. Kobe (1935). **a - 1282**

Results of oceanographical observations taken in Ômura-wan, which is an almost enclosed basin situated in the neighbourhood of Nagasaki and connected with the East China Sea by means of two narrow channels. The data of the oceanographical and meteorological observations are recorded on tables and plates annexed to the report.

**Okada T.** - Report of the Oceanographical Observations Taken on Board R. M. S. « Syunpû Maru » in Osaka-Wan in April 1935 [*Relatio de observationibus oceanographicis in navi peractis* « Syunpû Maru » *in* Ômura-Wan *mense Aprili 1935*]. (In Jap.). Tabl. & pl. Journ. Oceanogr. VIII, 3, 265-312. Kobe (1936). **a - 1283**

**Okada T.** - Note on the Oceanographical Observations in Nagoya Harbour, December, 1932, with Special Discussions on the Chemical Properties of the Water in the Harbour [*De observationibus oceanographicis in portu* Nagoya *mense Decembri 1932. Agitur particulatim de peculiaritatibus chemicis*]. (In Jap.). Tabl. & pl., Journ. Oceanogr. VIII, 3, 313-332. Kobe (1936). **a - 1284**

The description chiefly concerns the distribution of chemical elements and variation of these elements during the period indicated. As an appendix, the results of oceanographical and meteorological observations in the route from Kobe to Nagoya are given.

**Okada T.** - Note on the Correlative Oscillations of the Surface Water Temperature of the Oyasio and the Kurosio [*De oscillationibus correlativis quoad temperaturam aquae superficialis in* Oyasio *et* Kurosio]. 1 map, 5 tables. Mem. Imp. Mar. Observ., VI, 2, 97-103. Kobe (1936). **a - 1285**

In order to examine the validity of the arguments, showing the influence upon the northern Japan temperature of the north equatorial current or the Kurosio and of the Oyasio current, author has compared the departures of water temperatures observed in the vicinity of these currents.

**Orr A. P.** - Physical and Chemical Conditions in the Sea in the Neighbourhood of the Great Barrier Reef [*De maris condicionibus physicis et chemicis apud* Great Barrier Reef]. 7 figs. Great Barrier Reef (Queensl). Exp. 1928-1929. Scient. Rep. Brit. Mus. (Natur. Hist.), II, 3, 37-86. London (1933). **a - 1286**

Analysis of seasonal changes in temperature, salinity, density, turbidity and plant nutrient salts and influencing factors; effect of the hydrographic conditions on plant life and corals; comparison with the conditions in temperate waters. Discovery of upwelling deep water on the seaward edge of the Barrier.

**Oster R. H.** - Measurements of the Penetration of the Red, Green and Violet Components of Daylight into Atlantic Waters [*De mensuris quoad componentes rubros virides et violaceos lucis diurnae in aquis Oceani Atlantici relate ad penetrationem*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 24. Woods Hole, Mass (1935). **a - 1287**

Brief account of measurements of penetration of the three components of daylight into the sea, made in coastal areas near Woods Hole, in the Gulf of Maine, and in the Sargasso Sea. A comparison between the velocity of penetration of the red, green, and violet components of daylight has also been made in coastal areas, as well as in inshore waters.

**Parr A. E.** - Report on Hydrographic Observations in the Gulf of Mexico and the Adjacent Straits made during the Yale Oceanographic Expedition on the « Mabel Taylor » in 1932 [*Relatio de observationibus hydrographicis in Sinu Mexicano et in fretis adiacentibus peractis perdurante navigatione oceanographica Yalensi in navi* « Mabel Taylor », *A. 1932*]. 33 fig., Bull. Bingham Oceanogr. Coll. V, Art. 1, 1-93. New Haven, Conn. (1935). **a - 1288**

Waters above 800 meters depth. Observations in the Gulf of Mexico proper: vertical profiles, horizontal distributions. Evidence of seasonal changes. Temperature-salinity correlations. Individual sections. General characteristics of Gulf waters, with comments upon method of computing average temperature-salinity correlations for special ocean areas. Observations in the Straits of Florida and in the Yucatan Channel.

**Peau E.** - Observations océanographiques faites de Barry (Angleterre) à l'Archipel de Kerguelen (12 Octobre-2 Décembre 1923) (à suivre) [*Observationes oceanographicae a* Barry *peractae in Archipelago* Kerguelen (*a die 12 Octobris ad diem 2 Decembris 1923*)]. Bull. Soc. Amis. Inst. Océanogr., XVII, 49, 4-5. Le Havre (1935). **a - 1289**

Compte rendu des observations faites du 27 au 29 novembre 1923 sur le trajet Barry - Cap de Bonne Espérance.

**Picotti M.** - Refrattometria dell'acqua marina e tavole per la misura della salinità [*De refractometria aquae marinae deque tabulis ad salsedinem mensurandam*]. 31 pp., 7 fig., 2 tav., Mem. CCXXI del Comitato Talassografico Ital., Ferrari. Venezia (1935). **a - 1290**

Si descrive una sistemazione strumentale atta a dare le determinazioni refrattometriche con la massima precisione di misura consentita dal refrattometro ad immersione. Precisate le varie cause d'errore, vengono determinate a diverse temperature le variazioni dell'indice di rifrazione.

**Picotti M. M.** - Développement et approximation de la réfractométrie de l'eau de mer. [*De refractometria aquae marinae. Quaestio de evolutione et approximatione*]. 8 pp. Rapp. Pr.-Verb. Comm. Int. Expl. Mer. Paris (1935). **a - 1291**

**Picotti M.** - I fattori chimici essenziali, e «al minimo» determinanti per lo sviluppo e la capacità biologica marina ed il loro controllo immediato [*Factores chemici maxime necessarii ad investigandam capacitatem biologicam marinam*]. Rapp. Réun. Scient. Assemblée Bucarest, 1935. Paris (1935). **a - 1292**

Il controllo dei componenti nutritivi «al minimo» dell'acqua marina è da estendere ai composti: 1° Sostanza organica disciolta o colloidale da determinare con il permanganato potassico in ambiente alcalino e rititolazione in ambiente acido, secondo Natterer. 2° Ammoniaca e sali ammoniacali valutabili molto esattamente senza distillazione, usando il trattamento preventivo di Witting e successiva nesslerizzazione. 3° Ammoniaca ex azoto proteico-valutabile al 90 % circa a titolo di controllo, con permanganato sec. Wanklyn, Chapman e Smith. Quando tale controllo risulti opportuno è consigliabile pure in parallelo. 4° Determinazione dell'azoto totale combinato, con il metodo di Kjeldahl, modificato secondo Jodlbauer e ciò per la contemporanea presenza di nitriti e nitrati. 5° Determinazione dell'acido nitroso con il reagente di Griess - Ilosvay. 6° Determinazione dell'acido nitrico con il metodo di Harvey alla stricnina ridotta. 7° Determinazione dell'ione fosforico a mezzo della reazione ceruleo-molibdica di Denigès. 8° Determinazione della silice solubile, secondo Atkins, a mezzo della colorazione gialla con molibdato ammonico in ambiente di pH = 2. (Autore).

**Rakestraw N. W.** - Physical Chemistry of Sea Water [*De chemica-physica aquae marinae*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 27-28. Woods Hole. Mass (1935). **a - 1293**

Account of the results of chemical analysis made on water samples from 270 stations in the Gulf of Maine during the year 1933-1934, on ten different cruises covering an interval of fifteen months. Extention of the work on nitrite in sea water; application of the method worked out before for the determination of the dissolved inorganic iron in sea water; improvement of the method of determination of the content in cupper of the sea water; determination of the content of dissolved inert gases (helium and neon) in water-samples.

**Redfield A. C.** - Chemistry of the Gulf of Maine [*De chemica aquarum ad Sinum* Maine *pertinentium*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 28. Woods Hole, Mass (1935). **a - 1294**

Summary of the work performed on the chemistry of the water of the Gulf of Maine and the results of the analysis of the data obtained with a view to get an accurate picture of the distribution of substances important in the nutrition of animals and plants throughout the year.

**Sandström J. W.** - Geophysische Untersuchungen im Nordatlantischen Meer [*Investigationes geophysicae in oceano atlantico septentr.*]. Gerl. Beitr. Geoph. IV, Mitt., 45, 1-4. Leipzig (1935). **a - 1295**

**Seiwell H. R.** - Phosphate in the Western Basin in the North Atlantic [*De phosphato in regione occidentali Oceani Atlantici septentr.*]. Nature, CXXXVI, 3432, 206-208. London (1935). **a - 1296**

After having examined the transfer and amount of phosphate in different layers and factors concerned with it the A. comes to conclusions opposed to previous ideas that, throughout in the entire basin of the western North Atlantic, regardless of existing vertical density gradients, there is a significant eddy transfer of phosphate from the rich mid-strata to the impoverished surface layers.

**Seiwell H. R.** - The Cycle of Phosphorus in the Western Basin of the North Atlantic. I. Phosphate Phosphorus [*De phospori cyclo in parte occidentali Oceani Atlantici Sept.*]. Pap. Phys. Oceanogr. & Meteor. III, 4. Cambridge, Mass. (1935). **a - 1297**

**Seiwell H. R.** - Oxygen and Phosphorus Contents of Water and Sediments of the Western Basin of the North Atlantic [*De aquae oxygeno et phosphoro in aqua atque etiam in sedimentis regionis occidentalis Oceani Atlantici Sept.*]. Woods Hole Oceanogr. Instit. App., Rep. 1934, 29. Woods Hole, Mass (1935). **a - 1298**

Summary of the studies of the biological relationships of oxygen and phosphorus contents of water and sediments, especially dealing with (1) the oxygen, phosphorus and organic phosphorus content of the western basin of the North Atlantic; (2) the phosphorus and carbon contents in relation to the physical composition of marine sediments; (3) the chemical analysis of the marine plankton; (4) the theoretical interpretation of the biological significance of the results.

**Slocum G.** - Sea-Surface Temperature. Summary for the Northwestern Gulf of Mexico, 1912-1933 [*Marinae superficiei temperaturae in regione nordoccidentali Sinus Mexicani*]., 2 tabl. Monthly Weath. Rev., LVIII. Washington D. C. (1935). **a - 1299**

Monthly and annual mean sea-surface temperatures given in tables.

**Smith H.** - Physical Oceanography of Davis Strait, Labrador Sea and Grand Banks [*Oceanographia physica ad Fretum* Davis, *mare Labradoricum, et magna vada* (*anglice* Grand Banks) *pertinens*]. Woods Hole Oceanogr. Instit., App. Rep. 1934, 30. Woods Hole, Mass (1935). **a - 1300**

Account of surveys carried out by the U. S. Coast Guard vessels «Marion» and «General Green» in the years, 1928, 1931, 1933, and 1934 during which an observational material has been collected for a study of the distribution of temperature and salinity, and the prevailing circulation in the waters around the Grand Banks, and northward between Labrador and Greenland, to the 17th parallel of latitude.

**Soule F. M.** - Physical Oceanography of the Grand Banks Region and Labrador Sea [*Oceanographia physica quae pertinet ad regionem* Grand Banks *et mare Labradoricum*]. Woods Hole Oceanogr. Instit., App. Rep. 1934, 30-31. Woods Hole, Mass (1935). **a - 1301**

Account of the cruises of different vessels in the Grand Bank region and Labrador Sea, during which dynamic topographic charts of the region have been supplied, three current surveys of the critical area made, 172 oceanographical stations occupied and the temperature and salinity measurements extended to dephts of 1500, and where the depth of water permitted, to 2000 and 2500 meters. Other incidental data have been gathered, consisting of barograms, seawater surface thermograms and 969 sonic soundings, as well as of vertical sections of temperature, salinity and density.

**Tait J. B.** - Recent High Salinity Records from the Northern North Sea [*De maxima salsedine Maris Nordici. Recentiores registrationes*]. 5 tables, 1 fig. Rapp. Pr-Verb. Cons. Expl. Mer. XCIV. Appendices (1934-1935). 60-65. Copenhague (1935). **a - 1302**

Methods of determination used, and their validity. Dates (day, month), depths and salinities from 1930 to 1934 expressed graphically and in tables. The bearing of these results on the general question of hydrological anomaly.

**Thijsse J. Th.** - De Ontzilting van het Ijsselmeer in 1935 [*De salina deminutione in* Ijsselmeer *A. 1935*]. 2 fig., Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam LIII, 3, 369-370. Leiden (1936). **a - 1303**

Fortschreitende Verminderung des Salzgehaltes im Winter 1935-1936 dank der grossen Zufuhr vom Rhein: leichte Erhöhung im Februar, mit einem mittleren Salzgehalt von O. 39 Gr. pro Liter, was nur die Hälfte des entsprechenden Gehaltes von April-Mai 1935 ausmacht.

**Thompson H. & Wilson A. M.** - Hydrographic Conditions in 1934 [*Condiciones hydrographicae A. 1934*]. 2 tables. Rep. Newfoundl. Fish. Res. Labor., II, 3, 15-19. Newfoundland (1935). **a - 1304**

After a brief description of the temperature conditions of the Newfoundland waters, author lists, for comparative purpose, in a table the approximate mean temperatures derived from an inspection of the isothermic charts published at the end of the Report of the Newfoundland Fishery Research Laboratory, and in another table the ranges of salinity, determined by inspection of the hydrographic charts. In a chapter he discusses the features of the chief courses taken by the drift bottles liberated during 1934, as well as during previous years (1931-33).

**Thompson Th. G. & Wilson Th. L.** - The Occurrence and Determination of Manganese in Sea Water [*De manganese in aqua marina. Agitur etiam de eius determinatione*]. 3 tabl., Journ. Amer. Chem. Soc., LVII, 233, 233-236. Easton, Pa. (1935). **a - 1305**

Method for the quantitative determination; variations in the manganese content of sea water; importance for plancton growth; samples from bottom muds.

**Urry W. D.** - Helium-Neon Content of Ocean Waters [*De helio-neon quod continetur in aquis oceanicis*]. Amer. Chem. Journ. 57, 657-659. Easton & Baltimore (1935). **a - 1306**

The variation of the helium-neon content of ocean waters measured. Possibility of fixing a base line for the oxygen content on such data as well as tracing the history of the present oxygen or the water masses involved.

**Utterback C. L.** - Submarine Illumination [*De illuminatione submarina*]. 6 figs., 4 tables. Nat. Res. Counc. Amer. Geoph. Un. Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 250-256. Washington D. C. (1935). **a - 1307**

The data presented in this paper are those of a series of studies on the penetration of several spectral bands of visible solar radiation into the inshore and ocean-waters of the Pacific Northwest. At two stations a series of monthly observations were made during the year 1934 for the purpose of determining any seasonal changes in the transparency of the water throughout the year. Several hundreds of total vertical absorption-coefficients have been determined for the Pacific Northwest waters.

**Wattenberg H.** - Aufgaben der chemischen Meeresforschung [*Proposita ad investigationes chemicas aquae marinae pertinentia*]. Ztschr. f. d. ges. Naturwiss. VI. Berlin (1935). **a - 1308**

**Wattenberg H. & Timmermann** - Ueber die Sättigung des Seewassers an $CaCO_3$ und die anorganogene Bildung von Kalksedimenten [*Quaestio de saturatione in aqua marina $CaCO_3$ deque formatione anorganogena sedimentorum calcii*]. 1 Tab,. 6 Abb., Ann. d. Hydrogr. LXIV, 1, 23-31. Berlin (1936). **a - 1309**

Es soll untersucht werden, ob sich im Meere durch rein chemische Ausfällung Ablagerungen von $CaCO_3$ bilden. Dies müsste der Fall sein, wenn kalkübersättigtes Seewasser mit festem $CaCO_3$ in Berührung kommt. Es wird daher durch Löslichkeitsbestimmungen von $CaCO_3$ in Seewasser der Sättigungszustand in der Natur als Funktion von Salzgehalt, Temperatur und $CO_2$ – Druck bzw. pH neu festgelegt. Auf Grund dieser Daten wird die Möglichkeit der anorganogenen Bildung von Kalksedimenten und der Kreislauf des Kalziumkarbonats im Weltmeer diskutiert. (Vf. Zus.).

**Wiese W. J.** - Ein Beitrag zur Hydrologie des Karischen Meeres [*Contributio in hydrologiam Maris* Kara]. (In Russ. Dtsch. Rés.). 1 Tab. Expl. Mers URSS, 14, 19-26. Inst. Hydrol., Léningrad (1931). **a - 1310**

Ergebnisse der in 1920 während der Rettungs-expedition des Eisbrechers « Swjatogor » (heute « Krassin ») ausgeführten hydrologischen Beobachtungen. Die Beobachtungen auf den vier Tiefseestationen sind vom besonderen Interesse, da sie sich auf eine Jahreszeit beziehen, wo das Karische Meer schwer zugänglich ist (Monat Juni). Ausserdem betreffen sie das Jahr 1920, welches den Anfang einer bis heute fortdauernden Periode von erhöhtem Temperaturzustande des Barentsmeeres bezeichnet.

**Wiese W. J.** - Temperatur und Salzgehalt des Oberflächenwassers [*De temperatura et quantitate salina in aqua ad superficiem*]. (Russ. Text, Dtsch. Rés.). 1 Abb. Trans. Arct. Inst., XXIX, 7-24. Leningrad (1935). **a - 1311**

Diese Beobachtungen sind während der Fahrt des « Lütke » von der Bering-Strasse bis Murmansk ausgeführt worden und sind hier in Tabellen mit Angabe von Monat, Anzahl, Stunde, Breite und Länge, Temperatur und Salzgehalt mit Bemerkungen über Eisverhältnisse wiedergegeben. Vergleich mit den Ergebnissen anderer Expeditionen.

**Wiese W. J.** - Tiefseestationen [*Observationes aquarum peraltarum*]. (In Russ. Dtsch. Rés.). 11 Fig., 2 Tab. Trans. Arct. Inst., XXIX, Scient. Res. Exped. Icebr. « Lütke », 1934, 25-39. Leningrad (1935). **a - 1312**

Bericht über die Tiefseestationen, welche während der Nordostdurchfahrt des Eisbrechers « Lütke » ausgeführt worden sind, und zwar 7 - im Tschuktschen-Meer, 3 - im Gebiet zwischen der Mündung des Flusses Kolyma und den Bären-Inseln, 11 - im Ostsibirischen Meere, zwischen den Bären-Inseln und den Neusibirischen Inslen. Es sind Isothermen und Isohalinen gezogen worden, und es wird ausserdem über den Sauerstoffgehalt im Ostsibirischen Meere berichtet.

**Wirth H. E., Thompson Th. G. & Utterback C. L.** - Distribution of Isotopic Water in the Sea [*De distributione marina aquae isotopicae*]. 3 figs., 3 tabl. Journ. Amer. Chem. Soc., LVII, 400, 400-404. Easton, Pa (1935). **a - 1313**

Apparatus and methods. Differences in density between water distilled from tap water and 21 samples water from different seas. Vertical distribution of isotopic water. Comparison of sea-samples.

**Wüst G.** - Fortschreitende Salzgehaltsabnahme im Suezkanal [*De continua deminutione salina in canali* Suez]. 2 Tab., 3 Abb., Ann. d. Hydrogr., LXIII, 10, 391-395. Berlin (1935). **a - 1314**

Die hier durch wiederholte Untersuchungen bestätigte fortschreitende Salzgehaltsabnahme ist offenbar eine Folge der fortschreitenden Auflösung der am Grunde des Grossen Bittersees befindlichen Salzlager. Praktische Folgen dieser Abnahme.

**Yasui Z.** - On the Lag of Deep-Sea Reversing Thermometers [*De retardatione thermometrorum reversibilium maris profunditatum causa*]. 1 fig., 4 tables. Mem. Imp. Mar. Observ., VI, 1, 33-41. Kobe (1935). **a - 1315**

Author carried out experimental observations on the lag of reversing thermometers in a metal tank filled with water, with 10 reversing thermometers Richter-Wiese and Negretti-Zambra. He found that the decaying modulus is nearly 1.53 and that the sufficient time interval from immersing the thermometers in the water is 6 minutes, considering every possible condition which might occur in oceanographic observations throughout the four seasons.

**Zarins E. & Ozolins J.** - Untersuchungen über die Zusammensetzung des Meerwassers im Rigaschen Meerbusen und an der lettländischen Küste des Baltischen Meeres [*Investigationes in compositionem aquae marinae in* Sinu Riga *et in litoribus Lettonicis Maris Baltici*]. 2 Abb. zahlr. Tab. Journ. Cons. Expl. Mer. X, 3, 275-301. Copenhague (1935). **a - 1316**

Die Vf. Vf. haben Untersuchungen gemacht, die einen grösseren Einblick in die im Rigaschen Meerbusen herrschenden Wasserverhältnisse geben und gestatten, einige allgemeine Schlüsse zu ziehen. Die Terminfahrten, für die den Vf. Vf. der Staatsdampfer « Hidrografs » zur Verfügung stand, fanden in den Jahren 1932-1934 statt.

**Zorell F.** - Beiträge zur Hydrographie der Deutschen Bucht auf Grund der Beobachtungen von 1920 bis 1932 [*Contributio in studendam hydrographiam in* Deutsche Rucht *ex observationibus peractis ab A. 1920 usque ad A. 1932*]. Tab., 24 Taf. a. T. 69 S. Aus d. Arch. Dtsch. Seewarte LIV, 1. Hamburg (1935). **a - 1317**

Das Beobachtungsmaterial: Deutsche, dänische und holländische Feuerschiffsbeobachtungen, die Beobachtungen der Biol. Anstalt Helgoland, Dampferrouten mit hydrographischen Beobachtungen, Reisen des R. F. D. « Poseidon » seit Kriegsende, Sonderbeobachtungen anlässlich der « Poseidon » Reisen, Sonderfahrten des Helgoländer Stationsschiffes « Augusta ». Abgrenzung und Tiefenverhältnisse der Deutschen Bucht. Die Temperatur und Salzgehaltsverhältnisse bei den Feuerschiffen. Die Helgoländer Terminfahrten und die hydrographischen Verhältnisse bei der Insel Helgoland. Die Fahrten des R. F. D. « Poseidon » 1920 bis 1932 und ihre Ergebnisse. Tabellenanhang über verschiedene Temperatur- und Salzgehaltsangaben (Monatsmittel, monatl. Maxima und Minima, Abweichungen usw.), Wasserführung der Elbe und der Weser nach verschiedenen Pegelständen.

**Conseil Permanent International pour l'Exploration de la Mer** - Bulletin hydrographique pour l'année 1934 [*Bulletinus hydrographicus pro A. 1934*]. 7 cartes, 4 diagr., iii + xvi + 121 pp. Bureau du Cons., Serv. Hydrogr., Copenhague (1935). **a - 1318**

Température t° et salinités S ‰ de l'eau de surface et de profondeur: du Golfe de Bothnie et de la Baltique - du Secteur de Transition (le Cattégat) - de la Mer du Nord - de la Manche - de l'Atlantique. Chimie et physique. Déterminations de l'oxygène, de l'azote des différentes compositions, du phosphate, de l'alcalinité et des qualités optiques. Hauteurs moyennes mensuelles. Appendice. Errata: 1932, 1933, 1934.

**Deutsche Seewarte (Spiess F.)** - Meereskundliche Beobachtungen auf deutschen Feuerschiffen der Nord- und Ostsee. Jahr 1934 [*Observationes oceanographicae peractae in germanicis navibus pharum ferentibus in navigando per Mare Nordicum et Mare Balticum*]. 2 Kart., 4 Tab., Taf. a. T. iii-vii, 1-62 S., Hamburg (1935). **a - 1319**

Das vorliegende Heft ist das zehnte der 1928 begonnenen Reihe und enthält ein Verzeichnis der Beobachtungsschiffe mit ihrer geographischen Lage, der Missweisung und dem Datum des Beginns der Beobachtungen. Es folgt eine Zusammenfassung der an Bord angestellten Beobachtungen betreffend den Wind, das Wetter, den Seegang, den Strom, die Stromkenterungszeiten, die Temperatur und den Salzgehalt, sowie die Oberflächentemperaturmessungen.

**Ghidrografitscheskoje Oupravlenije** - Observations hydro-bathymétriques pendant 1928-1929 [*Observationes hydrobathymetricae peractae A. 1928-29*]. (En russe). 128 pp. Gloubokov. Ghidrol. Nabljoud. Ghidrogr. Exped. (Observ. Hydrol. Bathym. Expéd. Hydrogr.), VIII. Ghidrogr. Oupr. Léningrad (1934). **a - 1320**

Compte rendu des résultats des observations hydrologiques des grandes profondeurs exécutées par les différentes expéditions organisées dans l'URSS au cours de 1928-29.

**Imperial Marine Observatory Kobe, Japan** - The Temperatures and Densities of Sea Water Along the Japanese Coasts (Sept.-Dec., 1934) [*Temperatura atque densitas aquae marinae praeter litora Japonica (A mense Septembri ad Decembrem 1934)*]. Tabl., Journ. Oceanogr., VIII, 1, 65-92. Kobe (1935). **a - 1321**

**Imperial Marine Observatory Kobe, Japan** - The Temperature and Densities of Sea Water along the Japanese Coasts (Jan.-April, 1935) [*Temperatura atque densitas aquae marinae praeter litora Japonica (A mense Januario ad Aprilem 1935)*]. Journ. Oceanogr., VIII, 2, 213-240. Kobe (1935). **a - 1322**

**An.** - Trasparencia del agua del mar [*De aquae marinae perluciditate*]. Iberica, XXIII, 1106, 86. Barcelona (1935). **a - 1323**

Descripción de dos nuevos aparatos que proporcionan un sencillo medio para determinar y situar las « nubes » de partículas orgánicas, tan interesantes para los biólogos, en la agua del mar y para el estudio de la trasparencia del agua a grandes profundidades.

**An.** - The Temperatures and Densities of Sea Water along the Japanese Coasts (May-Dec. 1935) [*Temperatura atque densitas aquae marinae praeter litora Japonica (A mense Maio ad Decembrem 1935)*]. Journ. Oceanogr. VIII, 3, 333-388. Kobe (1936). **a - 1324**

## Energia marium - Penetratio energiae solis radiantis.

**Biquard P.** - Sur l'existence d'une diffusion des ondes ultrasonores dans les liquides [*De diffusione in liquidos undarum sonorarum*]. 2 fig. C. R. Acad. Sc., CCII, 2, 117-119. Paris (1936). **a - 1325**

L'A. décrit une expérience qu'il a faite et qui lui a permis de constater l'existence d'une diffusion de son analogue à celle de la lumière et de confirmer l'existence d'une diffusion des ondes ultrasonores dans les liquides.

**Claude G.** - Sur l'énergie thermique des mers [*Marium energia thermica*]. C. R. Acad. Sc., CC, 993-997. Paris (1935). **a - 1326**

**Claude G.** - Mes travaux sur l'énergie thermique des mers [*De operibus ab ipso auctore huius notae peractis de energia thermica marium*]. 7 fig. 1 portr. Rev. Marit. Nouv. sér. CXCVII, mai. 577-594. Paris (1936). **a - 1327**

**Dufour** - L'électrification de la Bretagne et de la Normandie est-elle possible au moyen d'usines marémotrices ? [*Num electrificatio Britanniae et Normandiae fieri potest, officinarum auxilio quae a maris aestibus vim capiunt?*]. Rev. Gén. Electr. 25 Août, 267-268. Paris (1934). **a - 1328**

**Fontaine M.** - La pénétration des rayons ultra-violets solaires dans le milieu marin [*De penetratione in mare radiorum ultraviolaceorum*]. 1 fig. Bull. Soc. Océanogr. France, XVI, 88, 1521-1527. Paris (1936). **a - 1329**

Après avoir mis en relief le rôle important qu'ont assumé, parmi les divers rayons lumineux, les rayons ultraviolets dans différents travaux et recherches scientifiques et après avoir constaté que les opinions les plus contraires ont été émises quant à la pénétration de ces rayons dans le milieu marin, l'A. définit tout d'abord les rayons ultraviolets, avec référence spéciale à l'ultra-violet solaire et enfin étudie et illustre les résultats des différentes observations et des nombreux travaux sur la pénétration de l'ultraviolet solaire dans l'océan.

**Kamiya S.** - The visible Distance of Objects immersed in Sea-water. 1. [*Res immersae in aqua marina. Agitur de maxima et minima earum visibilitate*]. 5 figs. Bull. Jap. Soc. Scient. Fish. IV, 6, 365-373. Tokyo (1936). **a - 1330**

A. Law of similarity in Optical systems: Superficial light source. Voluminal light source. Surface with diffuse reflection or diffuse transmission. Point source. Diffusing medium. Light experienced several scattering in surfaces or in media. Surface with regular reflection or refraction. Fluorescent surface or medium. Application to the colour of sea-water. Application to the study of the visible distance of objects immersed in sea-water. B. Observations of visible distance in sea-water.

**Katzaurov L. I.** - Sur la question de la propagation de la lumière dans l'eau de mer [*De lucis propagatione in aquam marinam*]. (En russe). 8 fig., Ztschr. f. Techn. Phys. (Zhurn. Tekhn. Fisiki), V, 1, 169-173. Leningrad (1935). **a - 1331**

L'A. décrit un dispositif construit pour les mesures de la luminosité volumétrique de la lumière diffuse dans les eaux de la Mer Noire. Les mesures exécutées démontrent que la luminosité volumétrique de l'eau de mer augmente avec la profondité de pénétration. On n'a pas pu parvenir aux profondités de la luminosité volumétrique maximum, parce que les expériences ont été faites dans une zone où l'eau était particulièrement claire. On a pu toutefois observer clairement l'augmentation de la pente de la courbe représentant la luminosité volumétrique avec l'augmentation du coefficient de diffusion de l'eau de mer.

**Millikan R. A. & Neher V. H.** - Geographic Distribution of Sea-level Cosmic Ray Intensities [*De distributione geographica radiorum cosmicorum ad maris livellum*]. Science, LXXXII, 2137, 574. New York (1935). **a - 1332**

Paper presented at the autumn meeting 1935 of the National Academy of Sciences (U. S. A.). Account of a precision survey of the variation of cosmic-ray intensities with both latitude and longitude obtained with Neher self-recording electroscopes sent on ten different ships to different parts of the globe.

**Steinhauser F.** - Ueber die Ergebnisse der bisherigen Strahlungsmessungen im Mittelländischen und Roten Meer, im Indischen Ozean und im Südchinesischen Meer [*Da radiationis mensuris adhuc peractis mari Mediterraneo, Mari Rubro, Oceano Indiano, Mari Sinensi meridionali*]. Meteorol. Ztschr., 52, 284-288. Braunschweig (1935). **a - 1333**

# MARIS DYNAMICA

## Circulatio oceanica - Currentiae.

**Alexeev N. N.** - Contribution aux matériaux sur les courants dans le détroit Jougorskij Char [*Contributio in studendas currentiarum materias in strictu* Jugorskij Schar]. (En russe). Sev. Morsk. Putj, II, 51-53. Leningrad (1935). **a - 1334**

**Arakawa H.** - On the General and Secondary Circulations of the Ocean [*De oceani circulatione generali et secundaria*]. 6 figs. Mem. Imp. Mar. Observ., VI, 1, 43-62. Kobe (1935). **a - 1335**

In former papers (S.: H. Arakawa: « On the General Circulation of the Atmosphere and its Seasonal Variations », Ch. VI, The Oceanic Circulation, Geophys. Mag., 8, p. 284, 1935; H. Arakawa & S. Ooma: « On the General Circulation of the Ocean », Geophys. Mag., p. 83, 1935) author had illustrated the main features of the general circulation caused by the distribution of density *in situ* of sea water on the globe; he confined himself to the circulation that would exist if the earth were covered with water everywhere to a uniform depth. In the present paper he considers the modifications of this theoretical scheme and sees in what ways it is changed by the distribution of land and ocean. He discusses therefore the general circulation of the ocean caused by the distribution of the density of sea water and the secondary circulation of the ocean produced by winds.

**Arakawa H. & Ooma S.** - On the General Circulations of the Ocean [*De oceani circulatione generali*]. Geophys. Mag., IX, 1, 83-104. Tokyo (1935). **a - 1336**

Examination of the circulation due to varying density on a rotating globe. Equations to give a scheme of oceanic circulation.

**Barlow E. W.** - Currents in the South Pacific Ocean, South of Latitude 34°S, During the Southern Summer [*De currentiis in Oceano Pacifico merid. in regione meridionali latitudinis 34°S, aestate australi*]. Mar. Obs., XIII, 122, 57. London (1935). **a - 1337**

Brief account of the Southern Ocean drift, other currents and the greatest drifts recorded in the South Pacific Ocean during the southern summer, November to April.

**Chevey P. & Carton P.** - Les courants de la mer de Chine Méridionale et leurs rapports avec le climat de l'Indochine [*De currentiis maris sinensis meridionalis earumque correlationibus cum climate indosinensi*]. 8 pl., 13 pp. Inst. Océanogr. Indochine, Stat. Marit. Cauda, Note 26. Hanoï (1935). **a - 1338**

**Clowes A. J. & Deacon G. E. R.** - The Deep-Water Circulation of the Indian Ocean [*De aquae profundae circulatione in Oceano Indiano*]. 4 figs. Nature, CXXXVI, 3450, 936-938. London (1935). **a - 1339**

Former and actual work with a special reference to the observations of the R. R. S. Discovery II during her voyage from the Antarctic to the Gulf of Aden in 1935 as to the extent, volume and origine of the north Indian current, its temperature, salinity and oxygen content.

**Defant A.** - Der Aequatoriale Gegenstrom [*De contracurrentia aequatoriali*]. Sitz-ber. Preuss. Akad. Wiss. Phys. Math. Kl. XXVIII. Berlin (1935). **a - 1340**

**Dietrich G.** - Aufbau und Dynamik des südlichen Agulhasstromgebietes [*Constitutio et dynamica currentiarum in regione meridionali* Agulhas *nomine*]. 66 Abb., u. Tab. 80 S., Mittler & Sohn. Berlin (1935). **a - 1341**

Geschichtliche Uebersicht der über das Agulhasstromgebiete angestellten Forschungen mit Angabe der zugrunde liegenden Quellen und der Forschungsmethoden des Vf. Die vom Vf. gezogenen Schlussfolgerungen beziehen sich auf das Vorkommen von Wassermassen verschiedener Dichtigkeit in der Nähe des südafrikanischen Kontinental-Schelfes, ihre Bewegungen und deren Ursachen. Eine Skizze zeigt die Oberflächenströmungen für Februar.

**Ertel H.** - Ueber die Beziehung Zwischen Tangentialdruck des Windes und Oberflächenstrom in V. W. Ekman's Theorie Stationärer Triftströme [*Agitur de correlatione quae notari potest inter ventorum pressionem triangularem et currentiarum declinantium superficialem currentiam relate ad theoriam* V. W. Ekman]. Gerl. Beitr. Geophys. XLIV, 225-228. Leipzig (1935). **a - 1342**

**Ganzhinov S. J. & Ljvov I. I.** - La dérive du « Sadko » dans la Mer de Kara en 1934 [*Declinatio navis* « Sadko » *in Mare Karense*]. (En russe). « Sadko » pod Sov. Flag. (« Sadko » sous Band. Sov.), 27-42. Ed. Glavsevmorpoutj. Leningrad (1935). **a - 1343**

**Hachey H. B.** - The Circulation of Hudson Bay Water as indicated by Drift Bottles [*De aquae circulatione in baja* Hudson *per buticulas fluitantes indicata*]. Science, LXXXII, 2125, 275-276. New York (1935). **a - 1344**

Of five hundred drift bottles released in 1930 twenty six have been returned in July 1935. Particulars are reported here in tables and graphs showing the general circulation to be in anticlockwise direction.

**Haight F. J.** - A Rotary Wind Current off the Florida Coast [*De currentia quadam rotatoria longe a litoribus Floridae*]. 1 fig., Geogr. Rev., XXVI, 3, 485-488. New Kork (1936). **a - 1345**

**Hansen W.** - Die Strömungen im Barents-Meer im Sommer 1927 auf Grund der Dichteverteilung [*De currentiis maris* Barents *aestate 1937 ex densitatis distributione*]. 43 Abb. a. 4 Taf., 41 S. Aus d. Arch. Dtsch. Seew. LV, 5, Hamburg (1936). **a - 1346**

Die Wasserbewegungen im Barents-Meer in ihrer Bedingtheit durch die Dichteverteilung: 1. Theoretische Grundlagen für die Berechnung der Geschwindigkeit des Wassers. 2. Die Geschwindigkeitsverteilung in meridionalen Schnitten auf 19°, 26°, 30°, 33 ½° und 38° östlicher Länge. 3. Die Darstellung der Wasserbewegung im westlichen Barents- Meer in Horizontalschnitten. - Spezielle Untersuchungen: Der Einfluss der oberflächennahen 50 Meter mächtigen Schicht auf die Gesamtbewegung. Die Zustände an der polaren Grenzfläche. Die Beobachtungen an den Dauerstationen.

**Mueller F. W.** - Salzgehalts- und Strömungsverhältnisse des Greifswalder Boddens [*De currentiis et salinitate in* Greifswalder Bodden]. 27 Fig., 14 Tab., 1 Karte a. T. Mitt. Naturwiss. Ver. Neuvorpommern & Rügen in Greifswald, LXI, 3-119. Greifswald (1934). **a - 1347**

Aufgabe vorliegender Arbeit ist eine Untersuchung der Strömungs- und Salzgehaltsverhältnisse des Greifswalder Boddens, der ein 514 km² grosses Teilbecken der mittleren deutschen Ostsee mit einer durschnittlichen Tiefe von 5.60 m. und einem Volumen von 2878. 106 m² ist. Nach einer kurzen Beschreibung des Untersuchungsgebietes und einer raschen Zusammenfassung der bisherigen Arbeiten über die hydrographischen Verhältnisse des Boddens, bespricht Vf. das Ergebnis der von ihm unternommenen Bearbeitung der hydrographischen Verhältnisse des Boddens. Die täglichen Salzgehalts- und Temperatur-Beobachtungen, Salzgehaltsschwankungen. Untersuchungen der Stromverhältnisse; Einfluss der Strömungen auf die Gestaltung des Bodenreliefs.

**Ogura S.** - The Analysis of the Result of Current Observations Made at Two Stations in the Northern Part of the Tung Hai [*De resultatibus ex observationibus currentiarum peractis in duabus stationibus in* Tung Hai *septentrionali*]. (In Jap.). 3 pls. Suiro Yôhô (Hydrogr. Bull). XIII, 431-440, 471-484. Tokyo (1934). **a - 1348**

Results of the observations of tidal currents made at two stations about 20 miles apart from each other, lying between Chusan Archipelago and Saisyû Tô in the northern part of the Tung Hai (East China Sea). The observations have been repeated for 24 hours at intervals of about one hour at various depths below the surface of the sea. The harmonic constants of the currents, previously decomposed into the north and east components, are given and the internal friction of sea-water about the time of maximum velocity to the north and to the east has also been calculated.

**Parr A. E.** - Hydrographic Relations Between the So-called Gulf Stream and the Gulf of Mexico [*Correlationes hydrographicae inter* Gulf Stream *et Sinum Mexicanum*]. 6 figs. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935. I, 246-250. Washington D. C. (1935). **a - 1349**

The present is an abbreviated report on hydrographic observations in the Gulf of Mexico, of which a full account is published in « Bulletin of the Bingham Oceanographic Collection », vol. V, article 1.

**Ratmanov G. E.** - Sur les courants dans la région du camp de l'équipage du « Tchéljouskine » dans la Mer de Tchoukhotsk [*De currentiis in regione in qua nautae navis* « Tcheljuskin » *castra posuerunt*]. (En russe, rés. angl.). Sev. Morsk. Poutj (Rec. Art. Hydrogr. & Navig.), I, 13-18. Leningrad (1934). **a - 1350**

**Rossby C. G.** - Dynamics of Drift Currents [*Dynamica currentiarum declinantium*]. Woods Hole Oceanogr. Inst., App., Rep. 1934, 28–29. Woods Hole, Mass (1935). **a - 1351**

Author has elaborated a theory for the velocity distribution in pure wind currents in the open ocean, which leads to reasonable values for the ratio between the surface current and the surface wind. Starting from these theoretical investigations, it seems possible to offer an adequate explanation for the great difference between the values of the ice drift obtained by Sverdrup on the North Siberian shelf and by Brennecke in the Antarctic deep water.

**Rossby C. G. & Montgomery R. B.** - The Layer of Frictional Influence in Wind and Ocean Currents [*De influentia quoad venti fricationem cum currentiis oceanicis*]. Pap. in Phys. Oceanogr. and Meteorol. III, 3. Cambridge, Mass. (1935). **a - 1352**

**Tchirikhine J.** - Sur la découverte en Norvège d'une autre bouteille mise à l'eau dans la Mer des Frères Laptev en 1927 [*De inventa buticula in Norvegia jam in mare* Laptev *iacta, A. 1927*]. (En russe). Sev. Morsk. Putj (Rec. Art. Hydrogr. & Navig.), I, 109. Leningrad (1934). **a - 1353**

**Thomsen H.** - Entstehung und Verbreitung einiger charakteristischen Wassermassen in dem Indischen und Südlichen Pazifischen Ozean [*De origine et distributione aliquarum aquae massarum in Oceano Indiano et Oceano Pacifico Meridionali*]. 1 Abb., 1 Taf. a. T. 1 Tab. Ann. d. Hydrogr., LXIII, 8, 293-305. Berlin (1935). **a - 1354**

Die Bildung von charakteristischen Wassermassen, auf welche die Gleichartigkeit der T- und S- Kurven beruht, muss immer auf die von der Oberfläche stammenden Komponente zurückgeführt werden. Beschreibung der für den Indischen und den Pazifischen Ossan charakteristischen Wassermassen: Bodenwasser, Antarktisches Zwischenwasser, südl. subtropisches Wasser, Äquatorialwasser (gemeinsam für beide Ozeane); Rotes Meer-wasser, nördl. subtropisches Wasser und Golfwasser (für den Indischen Ozean).

**Thorade H.** - Beständigkeit und Streuung bei Strömen [*De currentiarum calculis. Perfectio et oscillatio valorum*]. 2 Taf., 4 Abb. Ann. d. Hydrogr. LXIV, I, 13-23. Berlin (1936). **a - 1355**

An einem Beispiel wird gezeigt, dass der Wert einer einzelnen Strommessung äusserst gering war. Nur durch Häufung von Beobachtungen liessen sich die zahlreichen Schwankungen ausschalten. Zur Bewertung der Beobachtungen reichte der Begriff der Beständigkeit nicht aus. Verteilen sich die Beobachtungen gemäss dem Fehlergesetze, so wird zur Kennzeichnung der Streuung der « Streukreis » vorgeschlagen, in den etwa 2/3 aller Beobachtungen hineinfallen. Ausschaltung der Fehler bei Berechnung von Geschwindigkeit und Richtungswinkel. (Aus. Vf.: s Zus).

**Thorade H.** - Strombeobachtungen am Nordausgange des Kattegats [*De observatis currentiis in accessu septentrionali* Kattegat]. 4 Taf., 15 Abb. Ann. d. Hydrogr. XLIV, 6, 243-253. Berlin 1936). **a - 1356**

Am 19. August 1931 beobachtete « Poseidon » am Nordausgange des Kattegats an vier Punkten den Strom in je zwei Reihen mit Tiefenabständen von zwei Metern. Es wird gezeigt, dass die durch die Kürze der Beobachtungszeit entstehende Ungewissheit sich ausgleichen lässt, da sich mehrere Tiefen zu einem Mittelwerte zusammenfassen lassen. Die beobachteten Ströme sind durchaus uneinheitlich und lassen ein starkes Ueberwiegen von Mischbewegungen über das Zirkulationsschema erkennen, das vermutlich durch einen grossen Wirbel auf einen schmalen Streifen vor der schwedischen Küste eingeengt wird (Vf.).

**Tully J. P.** - Drift of the Japanese Current. [*De currentiae Japonicae declinatione*]. Western Fish. Fishing News, XI, 2 ? (1935). **a - 1357**

**Uda M.** - Oceanic Currents estimated from the Records of Plying Drift-nets and Longlines in Fishing [*De currentiis oceanicis perpensis ex differentibus positionibus retium piscatoriorum fluctuantium*]. (In Jap., Engl. Rés.). 3 figs., 1 table Bull. Jap. Soc. Scient. Fish. III, 2, 93-99. Tokyo (1934). **a - 1358**

By using the simple method described here A. has investigated the currents in the Kurosiwo-area, the Oyasiwo-area and the intermediate area between them as well as the currents in the Japan Sea along the west coast of Hokkaido. The results agree well with those obtained by scientific methods.

**Vallaux C.** - Les courants océaniques de surface et les girations secondaires [*De currentiis oceanicis ad superficiem et secundariis volutationibus*]. Rev. gén. Sc. pures et appl., XLVI, 8, 237-248. Paris (1935). **a - 1359**

Observations et méthodes. Schéma général des courants de surface: les streams et les drifts. Rapports de la circulation de surface et de la circulation profonde. La non-miscibilité des eaux marines. Lignes de convergence et girations secondaires. Le Kuroshio, d'après le capitaine de frégate S. Kisindo. La section du Sognefjord, d'après B. Helland-Hansen.

**Veen (van) J.** - Eenige opmerkingen over het zandtransport van stroomen [*De observationibus quoad sabulae subvectionem currentiarum causa*]. 7 Abb. Tijdschr. Kon. Ned. Aardr. Gen. Amsterdam LIII, 2, 161-172. Leiden (1936). **a - 1360**

Frühere Vorstellungen von der Transportfähigkeit der See- und Flussströme; gegenwärtige Messungen der Seesandströme in der Nordsee zwischen Holland und England, ihre Entstehung, kritische Schnelligkeit und Sandansammlung.

**Watson E. E.** - Physical Oceanography of the Bay of Fundy and Gulf of Maine [*De oceanographia physica in baja* Fundy *et Sinu* Maine]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 38. Woods Hole, Mass. (1935). **a - 1361**

Account of the data obtained in the Bay of Fundy for the International Passamaquoddy Fisheries Commission, with special regard to the behaviour of bodies of homogeneous water such as occur in parts of the region under consideration, and of the rôle of the supply of fresh water for the existence of such bodies.

**Wattenberg H.** - Kalkauflösung und Wasserbewegung am Meeresboden [*Decompositio calcica atque motus aquae in fundo marino*]. 1 Tab. Ann. d. Hydrogr. LXIII, 10, 387-391. Berlin (1935). **a - 1362**

An Hand eines Beispieles wird versucht, die Abgabe des aus dem Sediment gelösten Kalzium-karbonats zur Berechnung des Massenaustausches über dem Boden zu verwenden, um damit zur Geschwindigkeit des Bodenstromes zu gelangen. Reservierende Schlussbemerkungen vom Vf.

**Wellman F.** - Oestliche Stromversetzung an der südostafrikanischen Küste im Juli [*De mutatione in regione orientali currentiae quae fluit ad litora Africae meridionalis, mense Julio*]. 3 Abb., Seewart V, 2, 72-73. Hamburg (1935). **a - 1363**

Bericht über eine am 18. Juli 1935 vom D. Baden bei einer Ansteuerung von Durban beobachtete, in dieser Gegend ganz ungewöhnliche, Stromversetzung. Folgt eine Anmerkung der Schriftleitung mit drei die Stromvorgänge veranschaulichenden Karten.

**Wendler O. H.** - Die Oberflächenbewegungen des Guineastromes [*De Guineae currentia eiusque motu superficiali*]. Gerl. Beitr. Geophys, XLIV, 176-198. Lepzig (1935). **a - 1364**

**Wiese W. J.** - Drift of Buoy from Kara Sea to Lofoten Islands [*De signis fluctuantibus quae declinant a mari* Kara *ad Insulas* Lofoten]. (In Russ. & Engl.). Bull. Arct. Inst., V, 7, 204-205, 229-230. Leningrad (1935). **a - 1365**

Some comments and conclusions concerning the buoy n. 5 (cast on August 1st, 1934 by the cargo icebreaker « Sedov » in latitude 79°16′ N and longitude 80°40′ E, east of Wiese Island) and found - three miles west of Andenes Lighthouse (Lofoten Islands), off the north-western coast of Norway, ten months later, i. e. on June Ist 1935. This drift indicates that a veritable « eruption » of ice had taken place in the Polar Basin through the gate between Greenland and Spitsbergen. Short information of the finding of two other buoys off the north-west shores of Norway.

**Wiese W.** - The Drift of Buoys from the Kara Sea to the Coasts of Norway [*De signis fluctuantibus quae declinant a Mari* Kara *ad Norvegiam*]. (In Russ. & Engl). 1 table. Bull. Arct. Inst., V, 9, 290 & 309-310. Leningrad (1935). **a - 1366**

Brief account of buoys discovered on the north-western coast of Norway; the buoys have been cast adrift in 1934 by the expedition of the « Sedov ».

**Wiese W.** - Drift of Buoys from the Laptev Sea to the Coasts of Groenland [*De signis fluctuantibus quae declinant a Mari* Laptew *ad litora Groenlandica*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 10, 340-341, 367-368. Leningrad (1935). **a - 1367**

Drift of a buoy cast adrift by the Expedition on the « Sibirjakov » in the Laptev Sea on August 24th, 1932, 74°53′ N. and 122°20′E., and picked up on August 27th, 1935 in the sea 3 kilometres to the West of the village Lichtefels (south-west Greenland). This drift confirms the fact of a vigorous process of the clearing of the ice from the parts of Arctic bordering on the Atlantic during the last two years.

**Wrage W.** - Beobachtungen an Strombänken. Dritter Beitrag zur Kenntnis der Morphologie des Niederelbewatts [*De observatis vadis fluviatilibus. Contributio tertia in cognoscendam morphologiam accessuum* Elbe *inferioris*]. 1 Taf. Ann. d. Hydrogr., LXIV, 4, 168-173. Berlin (1936). **a - 1368**

Besprechung einer besonderen Form von Strombänken, die sich an einer im Niederelbelauf befindlichen schlickigen, zum Teil künstlich durch Baggersand aufgespülten, Insel befinden. Es sind sehr niedrige Sandbankbildungen, die erst bei Niedrigwasser auftauchen. Durch die Beobachtungen dieser Bänke versucht Vf. Strombau und Landgewinnung, sowie auch die Frage der Wanderung zu klären.

**Wüst G.** - Die Tiefenzirkulation im Raume des Atlantischen Ozeans [*De circulatione profunda in Atlantico*]. Naturwiss. XXIII, 47, 805-806. Berlin (1935). **a - 1369**

Vortrag gehalten an der Sitzung der Gesellschaft für Erdkunde, Berlin, am 20. Mai. 1935. Darstellung der neuen Untersuchungsmethode, der sog. Kernschichtenmethode, die sich auf die vertikale statt der horizontalen Verteilung der Wasserschichten bezieht. Richtung und Bewegung der Schichten auf Grund der Form der Isobathen. Versuch zum Entwurf eines Zirkulations-schemas. Verhältnisse zwischen Tiefenstrom und Bodenstrom.

**Wüst G.** - Humboldt-Strom, nicht Peru-Strom [*Currentia* Humboldt *non Currentia Peruviensis*]. 1 Abb., Peterm. Mitt. 12, 439. Gotha (1935). **a - 1370**

**British Meteorological Office** - Currents in the Southern Portion of the South Pacific [*De currentiis in regione meridionali Oceani Pacifici*]. 6 charts. Mar. Obs., XIII, 121, append., H. M. Stat. Off. London (1936). **a - 1371**

Charts showing the result of regular observations of ships for the British Meteorological Office, 1910-1935, indicating the currents observed in November, December, and January in the Southern portion of the South Pacific (Western, Middle, and Eastern).

**Deutsche Seewarte** - Westliche Stromversetzungen im Golfstrom [*De variationibus currentiarum in parte occidentali eius currentiae cuius nomen* Golfstream]. Seewart, IV, 4, 182-183. Hamburg (1935). **a - 1372**

Auszug aus dem von der Schiffsleitung des Dampfers Raimund erstatteten Bericht über die vom 17. bis 20. Juli beobachtete Stromversetzung, die eben das Gegenteil der gewöhnlichen Stromrichtung aufweist. Erläuternde Bemerkung der Schriftleitung.

**Deutsche Seewarte** - Stromversetzung bei Kap Guardafui im September [*De variationibus currentiarum ad promunturium* Guardafui *mense Septembri*]. Seewart IV, 4, 185-186. Hamburg (1935). **a - 1373**

Beobachtung einer Besteckversetzung im September 1933, welche für diesen Monat ungewöhnlich gross ist. Ursache.

**Deutsche Seewarte** - Treibkörpertriften [*De corporibus fluctuantibus eorumque velocitate*]. Seewart, IV, 6, 264-266. Hamburg (1935). **a - 1374**

Bericht über die in den Indischen und Nordatlantischen Ozeanen ausgesetzten und wieder gefundenen Flaschenposten. Erörterung ihrer Triften.

**Japanese Hydrographic Department** - Reports on Picked-up Current Bottles [*Relatio de collectis buticulis fluctuantibus*]. (In Jap.). Suiro Yôhô, (Hydrogr. Bull.). Vol. XIII. Tokyo (1934). (—) Id. Id. Suiro Yôhô, XIV. Tokyo (1935). **a - 1375**

The Hydrographic Department is throwing adrift several thousands of current bottles every year in the adjacent seas of Japan and at various places in the Pacific Ocean for the purpose of studying ocean currents. 297 bottles picked-up in the recent time are tabulated in the report, by the following data: Date and place of throwing overboard. Name of ship thrown from. Date and place where picked up. Name of finder. (S. Ogura).

**Japanese Hydrographic Department** - On the Currents in the Vicinity of Mikomoto Sima in Summer [*De currentiis apud* Mikotomo Sima *aestate*]. (In Jap.). 7 pls. Suiro Yôhô (Hydrogr. Bull.), XIII, 391-398. Tokyo (1934). **a - 1376**

The currents in the vicinity of Mikomoto Sima, off the Idu peninsula on the South coast of Honsyû, were observed during 11 days, excluding night time, from July 11th to July 28th, 1928. Three fishing boats were used to follow the current floats which were made so as to give the current 2.5 meters below the surface. The observations have been made in the sea areas, SE–SW–and NE– ward from the island, within a radius of 10 sea miles therefrom. In the present paper the results of these observations are summarized and the mean state of currents during day-time is derived.

**U. S. Department of Commerce** - Tide and Currents Surveys Methods, Instruments and Purposes [*Rationes instrumenta et proposita ad relevamenta ducenda currentiarum et aestuum*]. U. S. Govmt. Print. Off., Ser. n. 280, 1-16. Washington D. C. (1934). **a - 1377**

Tidal work of the Coast and Geodetic Survey which had its origin in the necessity of reducing to a common level or datum plane soundings taken at different stages of the tide during hydrographic surveys. Bench marks. Tide tables and tidal prediction of the Service. Types of tide and tidal theory. In the part dealing with the survey of currents the importance of them for navigation is emphasized and the various types of currents are dealt with. In the last additional part of the booklet other activities of the Coast and Geodetic Survey are briefly described.

**E. Rr.** - Bewegung von Flaschenposten in der Ostsee [*Buticularum amotiones mari Baltico*]. 1 Karte. Seewart V, 3/4, 104-108. Hamburg (1936). **a - 1378**

Im Jahre 1934 zwischen 54° und 56°, N. 10° und 20° O, sind im östlichen Halbkreis 63. 8 v. H. und im westlichen Halbkreis 36. 1 v. H. Flaschenposten beobachtet worden. Die Richtung der Triften und ihr Zusammenhang mit den Jahreszeiten. Erörterung einiger einzelnen bewerkenswerten Flaschenpostentriften.

**V. V.** - Finding of a Buoy [*De reperto quodam signo fluctuante*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 5/6, 150 & 180. Leningrad (1935). **a - 1379**

Account of the finding of a buoy on May 27th, 1935, on the southern tongue of Vstrechyj Island (Preobrazhenije), which confirms the supposition of the existence, at the eastern shores of Tajmyr peninsula of a current, trending from N to S.

**V. V.** - Another Find of a Buoy of the Expedition on the « Sedov » in 1934 [*De reperto novo quodam signo fluctuante ab expeditione navis* « Sedov », *A. 1934*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 11, 399-400, 420-421. Leningrad (1935). **a - 1380**

Account of the finding of a buoy of the expedition of the « Sedov » cast out on August 22nd, 1934 in lat. 79° 19′ N., and long. 74°42′ E. The buoy has been found on July 7th, 1935 in lat. 71°03′ N., 26°13 E. in the sea near Nordcap.

**An.** - Drift of a Bottle in the Kara Sea [*De buticulae cuiusdam declinatione Mari Karensi*]. (In Russ.). Bull. Arct. Inst., V. 12, 559. Leningrad (1935). **a - 1381**

Brief account of the finding on August 11th, 1935 on the shore of Wilkitzy Island in the vicinity of the point 73°32′ N., 75°55′ E. of a bottle thrown on September 25th, 1929 from the ship « Swinemünde » at lat. 73°18′ N., long. 70°38′ E.

**An.** - Finding of Two Buoys Cast Out in the Kara Sea [*De repertis duobus signis fluctuantibus jam in Mare Karense iactis*]. (In Russ. & Engl.). Bull. Arct. Inst., VI, 1, 32-52. Leningrad (1936). **a - 1382**

Information on the finding of two buoys which had been cast out respectively by the expedition of the « Sedov » on August 13th in lat. 78°37′ N, long. 91°58′ E. and by the expedition of the « Krassin » on October 1st, 1933, in lat. 75°58′ N., long. 71°46′ E.

**An.** - L'étude des courants transatlantiques [*Studium currentiarum transatlanticarum*]. Bull. Soc. Amis Inst. Océanogr., XIV, 51, 7. Le Havre (1935). **a - 1383**

Information sur la trouvaille sur la plage de l'Ile d'Oléron d'une bouteille jetée à la mer par l'Office Hydrographique de Washington, suivie de quelques considérations sur le temps qu'il lui a fallu pour traverser l'océan au gré des courants.

**An.** - The Current Matter of Greatest Interest [*Res collectae majoris momenti de currentiis*]. Mar. Obs., XIII, 122, 44. London (1936). **a - 1384**

Brief account of the activity of the Marine Division of the Meteorological Office regarding the charting of the currents of the South Pacific, of which at present less is known than either of those of the Indian and Atlantic oceans.

**An.** - Starke Stromversetzungen während der Ostafrikafahrt [*De observatis notabilibus variationibus currentiarum perdurante navigatione trans Africam orientalem*]. 2 Tab. Seewart, I, 5, 155-156. Hamburg (1936). **a - 1385**

Bericht über die im November 1935 auf einer Reise von Aden nach Mombasa sowie im Mozambik-Kanal beobachteten Stromversetzungen. Allgemeiner Charakter dieser Strome.

## Aestus et apparatus mareographici - Maris livellus.

**Baulig H.** - The Changing Sea Level [*Variatio maris livelli*]. 11 figs., xii + 46 pp. Inst. Brit. Geographers, Publ. 3. George Philip & Son, Ltd. London (1935). **a - 1386**

Four lectures given at the University of London in November 1933 chiefly concerning French and English researches: 1. Critical review of early investigations. 2. New method of research (see Baulig's book: Le plateau Central de la France, 1928). 3. Changes of sea level. 4. Methods used in the investigations. See Rev. by D. Johnson in: Geogr. Rev. XXVI, 2, 299-301. New York (1936).

**Berezkin V.** - Ueber cotidale Karten des Barentsmeeres [*De tabulis cotidalibus maris* Barents]. (In Russ., Dtsch. Rés.). 2 Fig. Expl. Mers URSS, Inst. Hydrol., 14, 5-18. Leningrad (1931). **a - 1387**

Die Bedeutung der cotidalen Karten für die Untersuchungen von Ebbe und Flut. Besprechung einiger von verschiedenen Gelehrten zusammengestellten cotidalen Karten des Barentsmeeres sowie einer vom Vf. im Jahre 1930 über dasselbe Gebiet ausgearbeitete Cotidalkarte, welche auf die Prinzipien Schuleikins und Huygens' ruht und gute Ergebnisse aufgewiesen hat. Bedarf einer Karte der Isoamplituden für das Studium der Flutwelle.

**Billmyer J. H. S.** - An Empirical Method of Tidal Prediction [*Methodus empirica ad aestuus providendos*]. U. S. Nav. Inst. Proc., LXI, 393, 1609-1611. Annapolis, Md. (1935). **a - 1388**

The Author demonstrates how it is possible to construct a chart of tides in a port extrapolating the data of observations during several months.

**Chapman S.** - The Lunar Atmospheric Tide in the Azores, 1894-1932 [*De aestu atmosphaerico lunari in insulis* Azores *1894-1932*]. 7 tables. Quart. Journ. R. Meteorol. Soc., LXII, 263, 41-45. London (1936). **a - 1389**

This paper continues a series dealing with the lunar atmospheric tide in which determinations have been previously given for 19 stations. It determines the lunar atmospheric tide at two stations in the Azores, namely, Ponta Delgada (38° N., 26°W.) and Santa Cruz (39° N., 31° W.), from 39 and 26 years bi-hourly data (all days) for barometric pressure. The probable errors of the obtained mean results are 1.6 and 2.2 microbars. The harmonic coefficients for the first four components of the solar diurnal variation are also given.

**Everdingen (van) E.** - Raz de marée aux Pays-Bas et leur prévision [*De marismotibus in Hollandia eorumque provisione*]. 4 fig. Un. Géod. & Géoph. Int., Ann. Comm. Etude Raz de Marée, 4, 116-129. Paris (1934). **a - 1390**

L'A. communique l'institution en Hollande en 1916 d'une Commission de l'Etat pour rechercher les causes des crues extraordinaires qui se produisent dans les Pays-Bas et leur rapport éventuel avec les travaux exécutés dans l'intérêt de la navigation sur la rivière entre Rotterdam et la Mer du Nord (Nieuwe Waterweg). Au cours de ses

recherches, la Commission avait réuni un grand nombre de données sur les augmentations du niveau, causées par le vent, dont un extrait compose le présent ouvrage, avec référence spéciale à (I) l'augmentation du niveau de la mer, sur la côte ouest de la Hollande, causée par des vents de diverses directions, au (II) calcul de l'influence du vent dans un complexe de canaux de profondeur variable et à (III) la prévision des raz de marée causés par des tempêtes.

**Ferraton J. L.** - Note sur un envahissement du litoral à Mazagan (Maroc) le 18 mars 1934 [*De alluvione in* Magazan (*Mauretania*) *die 18 Martii, 1934*]. 1 fig., 1 pl. Un. Géod. & Géoph. Int., Ann. Comm. Etude Raz de Marée, 4, 90-93. Paris (1934). **a - 1391**

Brève description des caractéristiques du Port de Mazagan, dont la rade se distingue par une chaussée sous-marine de 2,5 milles de longueur environ, dite « épi de Mazagan » qui l'abrite mal vers le Nord-Ouest. Illustration d'un envahissement de la côte qui semble avoir été dû à plusieurs rouleaux de houle d'une amplitude exceptionnelle et dont les effets se sont composés, étant donné que l'envahissement a été favorisé par le fait que la mer était haute, le coefficient de la marée élevé et la côte très basse.

**Fontsere E.** - Les seixes de la costa catalana [*Sessae in litoribus Catalanis*]. Diagr. Serv. Meteorol. Catalunga, Notes Estudi, 58, 1-12. Barcelona (1934).

( — ) Les seiches de la côte catalane. Un. Géod. & Géophys. Int., Ann. Comm. Etude Raz de Marée, 4, 54-60. Paris (1934). **a - 1392**

Description des variations soudaines du niveau de la mer sur la côte catalane mentionnées dans les mémoires de la Commission des Raz de Marée au Port de Barcelone et dans la presse locale. L'A. ne s'occupe dans la présente note que des variations de niveau à période relativement courte, de ½ à 2 heures. Dans les deux graphiques qui illustrent la note, sont reportées les oscillations de la pression atmosphérique et la tendance périodique de l'allure du vent coïncidant avec les seiches dans le Port de Barcelone.

**Frolow V.** - Sur le mouvement du niveau moyen de la mer à Brest et à Marseille [*De motibus maris livelli medii*, Brest *et Massiliae*]. C. R. Acad. Sc., CCII, 11, 908-910. Paris (1936). **a - 1393**

Après un bref aperçu sur les deux séries des variations du niveau moyen de la mer à Brest et à Marseille, l'A. déduit que ces deux séries doivent être étudiées séparément: il indique qu'une partie des mouvements du niveau moyen de la mer, tant à Brest qu'à Marseille, est due toutefois à une suite de variations périodiques élémentaires, mais il signale quelques particularités de ces mouvements, pour lesquelles l'hypothèse d'une influence de l'écoulement fluvial, agissant sur la tenue du niveau moyen en plus de la pression atmosphérique et de la température, peut fournir une explication.

**Gomojunov K. G.** - Emploi de marégraphes construits avec les moyens locaux dans l'Arctique [*De mareographis qui constructi fuerunt in regione Arctica expeditione quadam perdurante*]. (En russe). 2 fig. Bull. Arct. Inst., V, 12, 429-431. Leningrad (1935). **a - 1394**

Bref compte rendu sur l'emploi, le fonctionnement et les résultats obtenus à l'aide de deux marégraphes construits avec des matériaux locaux et avec application de deux mécanismes d'horlogerie de deux bathographes non complètement en ordre. A l'aide de ces deux dispositifs on a pu obtenir au cours de la Deuxième Année Polaire Internationale des indications suffisamment exactes sur les oscillations du niveau des marées dans la baie Rousskaja Gavanj et au Cap Schmidt.

**Grace S. F.** - The Principal Semidiurnal Constituent of Tidal Motion in Bay of Biscay [*De praecipuo constituente semidiurno quoad aestus motum in* Bay of Biscay]. 4 figs. R. Astron. Soc., M. N. Geophys. Suppl., III, 7, 274-285. London (1935). **a - 1395**

History. Notation and formulae. Expressions for the elevation. Observational data and solution. Exhibition and discussion of results.

**Heck N. H.** - Report of Special Committee on Cooperation with International Commission for the Study of Tidal Waves [*Relatio redacta a Comitatu speciali de operibus, consociatis rationibus peractis cum Commissione internationali undis aestuum studendis*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 18. Washington D. C. (1935). **a - 1396**

Information on the composition and the organization of the work of the Committee; it has the permanent function to collect all available information regarding unusual invasions of the shore by the sea; it collaborates with the International Commission for the Study of Tidal Waves.

**Hidaka K.** - Seiches Due to a Submarine Bank (Bank Seiches). [*Sessae quae formatae sunt a vado submarino*]. (In Engl., Jap. Summ.). 1 fig., 1 table. Mem. Imp. Mar. Obs., VI, 1, 1-8. Kobe (1935). **a - 1397**

The present paper deals with the problem if the existence of a coast is absolutely essential for seiches, and shows that seiches or stationary oscillations can take place in complete absence of the coasts when we suppose a sub marine bank.

**Hidaka K.** - A Theory of Shelf Seiches [*Sessae quae formatae sunt a vado*]. (In Engl., Jap. Summ.). 1 fig., 1 table. Mem. Imp. Mar. Observ., VI, 1, 9-12. Kobe (1935). **a - 1398**

This paper is the continuation of the previous paper (« Seiches due to a Submarine Bank », « Mem. Imp. Mar. Observ. Kobe », VI, 1, 1-8, 1935), on hand of which a theory of the very interesting case of shelf seiches is given, i. e. considering the case of a straight coast with a vertical wall.

**Köppen W.** - Schwankungen des Kaspischen Meeres [*De Maris Caspici livelli variationibus*]. 1 Tab., 1 graph. Fig. Ann. d. Hydrogr., XLIV, 2, 47-49. Berlin (1936). **a - 1399**

Referat mit Bemerkungen einiger von russischen Forschern über den Wasserstand im Kaspischen Meere veröffentlichten Arbeiten, deren Ergebnisse mit denen von E. Brückner in « Klimaschwankungen seit 1700 » teilweise übereinstimmen.

**Lange** - Einheitliche Nullpunktshöhe der Pegel im deutschen Tidegebiet [*De unificatione originis mensurae livelli marini*]. Ann. d. Hydrogr., LXIV, 1, 31-34. Berlin (1936). **a - 1400**

Anlässlich der vom Reichs – und Preussischen Verkehrsminister und dem Reichs – und Preussischen Minister für Ernährung und Landwirtschaft vom 5. April 1935 getroffenen Anordnung, die Nullpunkte der staatlichen Pegel einheitlich auf N. N. – 5000 m im neuen System der Landesaufnahme festzustellen, wird hier ein kurzer Ueberblick über die Gründe dieser Umlegung gegeben.

**Legrand J.** - Analyse des oscillations du niveau marin moyen annuel à Brest [*De oscillationibus livelli medii marini*, Brest]. 1 fig., 2 tables. C. R. Acad. Sc., CCII, 11, 911-913. Paris (1936). **a - 1401**

Après avoir rappelé que Ch. Lallemand et E. Prévot (C. R., CLXXXVIII, p. 1345, 1929) ont représenté les oscillations du niveau moyen annuel à Brest de 1851 à 1925 à l'aide de sept ondes composantes seulement, d'origine

astronomique, dont la plus importante est l'onde de 18 ans 2/3, l'A. dans la présente Note communique les résultats de l'analyse harmonique sur une série de 63 années dont 18 2/3 n'est pas une partie aliquote. Il déduit de ses calculs que les composantes sinusoïdales du graphique des niveaux marins moyens annuels à Brest ne sont pas les mêmes à toute époque, entre 1861 et 1935.

**Marmer H. A.** - The Variety in Tides [*Varietas aestuum*]. 7 figs. From the Smithsonian Report for 1934, 181-191. Publication No. 3313. Smithson. Instit. Washington (1935). **a - 1402**

**Navarro F. de P.** - El estado actual del problema de las ondas de marea interna [*De problemate quoad aestus undas interiores*]. (En esp. - rés. franç.). 7 fig. Mem. Cons. Oceanogr. Ibero-Amer., 16, 3-17. Madrid (1934). **a - 1403**

Contribución al conocimiento del problema de las ondas de marea internas y exposición de los términos en que la cuestión está planteada. La revisión de la más interesante y reciente bibliografia permite al autor de señalar qué hechos parecen definitivamente establecidos y cuàles permanecen obscuros y sin explicación satisfactoria.

**Maximov I. V.** - Materials for the Study of the Tides of the Arctic Seas of the USSR. Part II [*Res collectae ad aestus studendos in maribus arcticis ad URRS pertinentibus. Pars II*]. (In Russ. Dtsch. Rés.). 51 figs., 25 tables. Trans. Arct. Inst., LII, Hydrology, 5-80. Leningrad (1936). **a - 1404**

Ergebnisse der Bearbeitung der Gezeitenbeobachtungen mit Hilfe der harmonischen Analyse für 14 Punkte der Soviet-Arktik. Die Resultate der Bearbeitungen der Tidebeobachtungen sind in einer Tabelle a. T. zusammengefasst. Im Vorwort von Prof. W. J. Wiese wird es darauf hingewiesen, dass in den arktischen Meeren, wegen zeitweiliger Bedeckung der Wasserfläche mit Eis, die harmonischen Konstanten jahreszeitlichen Schwankungen unterworfen sind.

**Ogura S.** - Further Notes on the Tides in the Liautung Gulf [*De aestibus in* Liautung Gulf. *Nota sequens*]. (In Jap.). 11 pls. Suiro Yôhô (Hydrogr. Bull.), XIII, 91-98, 133-144, 179-187. Tokyo (1934). **a - 1405**

In this paper new data of observations during 1932 and 1933 completing those of 1932, on the Liautung-Gulf are analysed, and the results compared. The theory assumes that the tide in the Gulf is composed of a longitudinal oscillation of sea-water caused by the tide at the mouth of the Gulf and a transversal oscillation provoked by the action of earth's rotation on the longitudinal motion of sea-water. The results obtained from observations of tides and currents are in good accordance with the theory.

**Ogura S.** - Current-Diagrams Along the Coast of Tyôsen [*De diagrammatis currentiarum ad litora regionis* Tyôsen]. (In Jap.). 4 pls. Suiro Yôhô (Hydrogr. Bull.), XIII, 313-316. Tokyo (1934). **a - 1406**

4 diagrams of tidal currents along the principal routes of ships on the coasts of Tyôsen are prepared. Each diagram shows the tides (time of high and low water) and the currents (time of turn and velocity) along the route by taking the distance as ordinate and the time as abscissa. It will be possible to observe from the diagrams, that the time of high water retards from Husan Kô to Zinsen Kô nearly at a constant rate with respect to distance, but the time of turn of current suddenly changes in the western part of the south coast of Tyôsen (Author).

**Ogura S.** - The Tides and Abnormal Fluctuation of Sea-level at Tukizi (Tokyo). [*De aestibus anormali praeditis livelli marini variatione in* Tukizi (Tokyo)]. (In Jap.). Suiro Yôhô (Hydrogr. Bull.), XIV, 247-262. Tokyo (1935). **a - 1407**

**Okada M. & Miyosi K.** - Experimental Studies of the Water Movement in Coastal Regions of the Sea. II. Tidal Oscillations in Sagami Bay. (II). [*Studia ad experimentum quoad aquae motum in zonis litoreis. II. Aestus marini oscillationes in bajá* Sagami (*II*)]. 5 figs., 2 tables, 12 pls. Journ. Imp. Fish. Inst., XXX, 4, 253-263. Tokyo (1935). **a - 1408**

In a previous paper (s.: « Journ. Imp. Fish. Inst. », XXIX, 1, 15-98, 1933) the authors have reported the results of their study accomplished in order to examine to what extent and under what conditions, the modelled water movements in coastal waters will reproduce various features of the original, but the results obtained fell short chiefly because of a too small number of points where the tidal motion of water surface was observed. The experiment reported in the present paper was carried out in improved conditions with respect to the wave generating arrangements; the reproduced tides and tidal currents have some features more or less in common with the original semi-diurnal tides of the Sagami Bay. Although the results obtained are not fully satisfactory they show the mode of propagation of tidal waves in the region under consideration.

**Pettersson O.** - The Internal Parallactic Tide in the Transitional Area [*De aestu interiore parallactico in area quae dicitur transitionis*]. 5 graph. fig., 2 tabl. Rapp. Pr.-Verb. Cons. Expl. Mer, XCIV, 3me partie, Appendices (1934-1935), 25-30. Copenhague (1935). **a - 1409**

On the basis of investigations dating principally from 1909-1911 (Sv. Hydrogr. Biol. Komm. Skr. V) the A. here draws the following conclusions: 1. That the interval between the two maxima as between the two minima is 13-14 days. 2. that the lowest niveau (the Ebb-period) of the internal parallactic tide in the Gullmarfjord is connected with the declination and occurs some days after the declination $\delta = 0$ of the moon when the force $\Sigma$ F is greatest. 3. and that the s. c. Moon-waves, discovered 1909-1911 in the Gullmarfjord, are caused by the internal parallactic tide in the boundary Surfaces of the Sea.

**Proudman J. & Doodson A. T.** - Liverpool Observatory and Tidal Institute. Annual Report, 1935 [*Observatorium atque Institutum marinis aestibus studendis* Liverpool. *Relatio pro A. 1935*]. 1 fig. 2-15 pp., C. Tinnling & Co., Liverpool (1936). **a - 1410**

Governing Committee, 1935 – Report for 1935: Publications, Research, Machines and Instruments, General, Tidal analyses and prediction, Testing of instruments, Meteorological information supplied, Meteorological summary for 1935, Library.

**Rauschelbach H.** - Die Hochseepegelbeobachtungen im Südlichen Kattegat im August 1931 [*Observationes per mareographum obtentae longe a litoribus regionis* Kattegat *meridionalis mense Augusto 1931*]. Taf., 26 S. Mittler & Sohn. Berlin (1934). **a - 1411**

**Rauschelbach H.** - Ermittlung des mittleren Wasserstandes und der Gezeiten des Kanaruk-Fjordes [*Maris medii livelli determinatio atque aestuum in fiordo nomine* Kanaruk]. Abb., 28 S. F. A. Brockhaus. Leipzig (1935). **a - 1412**

**Ravet J.** - Etablissements Français de l'Océanie. - Marées de tempête [*Instituta Francogallica in Oceania. Aestus marini tempestatibus perdurantibus*]. 1 table. Un. Géod. & Géophys. Int., Comm. Etude Raz de Marée, 4, 101-115. Paris (1934). **a - 1413**

Renseignements empruntés aux rapports des fonctionnaires français, civils et militaires qui ont: soit subi un cyclone, soit été appelés à diriger des tournées de secours dans les régions sinistrées. Ils se rapportent à des envahis-

sements de la mer, ayant accompagné des cyclones. Les observations se rapportent aux Iles Tuamotu, à Papeete, à l'archipel des Iles Marquises et à celui des Iles Gambier: la période d'observation s'étend de 1878 à 1933.

**Sakuraba S.** - The Effect of Varying Depth on the Stability of Stationary Oscillations in a Lake or a Sea [*De effectu profunditatis variabilis in stabilitatem oscillationum fixarum in lacu vel in mari*]. Mem. Imp. Mar. Obs., VI, 1, 63-65. Kobe (1935). **a - 1414**

Author claims that « from the physical point of view it is reasonable to consider that the stable mode of wave motion breaks down and becomes unstable when the inclination of bed is relatively steep in comparison with the frequency of the wave and exceeds some critical value ». Such a condition is dealt with in the present problem i. e. a stationary oscillation in a bounded lake or sea of rectangular basin whose sides are given by $x = 0 \sim a$, $y = \pm b$, when depth $h$ of the basin varies according to the law $h = h_0 \left(1 - \frac{x}{a}\right)^2$.

**Schureman P.** - Marégraphe réglementaire automatique du Coast & Geodetic Survey des Etats-Unis d'Amérique [*Apparatus mareographicus regulamentaris automaticus quo utitur* C. *&* G. S.]. 3 fig. h. t. Rev. Hydrogr. XIII, 1, 73-77. Monaco (1936). **a - 1415**

**Sezawa K.** - Growth and Decay of Seiches in an Epicontinental Sea [*Accretio et decretio sessarum in mari epicontinentali*]. 1 table. Proc. Imp. Acad., XI, 5, 177-179. Tokyo (1935). **a - 1416**

Author points out that the fact that a kind of seiches, which however decay rapidly, very often appear even in an open coast free from the effects of bays or inlets, has been discovered long ago by Japanese investigators and comments from the mathematical point of view the case of growth and decay of seiches in an epicontinental sea.

**Shankland E. C.** - Les marégraphes du port de Londres [*De apparatibus mareographicis portus Londiniensis*]. 6 fig. dont 3 h. t. Rev. Hydrogr., XIII, 1, 39-48. Monaco (1936). **a - 1417**

Résumé historique. Description des instruments actuels.

**Stahevic V.** - Tides in the White Sea [*De aestibus Maris Albi*]. Zap. po Hidrogr., 1, 24-32. Leningrad (1934). **a - 1418**

**Stenij S. E.** - Vedenkorkeusarvoja 1934 (Vattenståndsuppgifter 1934). [*Data de maris livello*]. (In Finn. u. Schwed., Dtsch. Rés.). 1 Karte, Tab. 52 pp. Merentutk. laitoks. Julk. (Havsforskn. inst. Skr.), 104. (1935). **a - 1419**

Ergebnisse der an den Küsten Finnlands auf 17 Mareographen- und 20 Pegelstationen ausgeführten Beobachtungen.

**Stenij S. E.** - Vuorovesitaulukko Liinahamari 1936 (Lat. 69°, 38′5 N. Long. 31° 22. E.). [*Tabulae pro altis aestibus per* Liinahamari *1936*]. (In Finnish, Engl. Rés.). Tabl., 16 pp. Merentutkimoslaitos. Helsinki (1935). **a - 1420**

Prediction for the tides of Liinahamari 1936 based on harmonic analysis of the records of the automatic tide gauge at Liinahamari, Gulf of Petsamo, for the years 1931-1932.

**Thiel G.** - Das Kartennull der Seekarten [*De livelli puncto zero in tabulis nauticis*]. Tab. Seewart, V, 5, 137-145. Hamburg (1936). **a - 1421**

Allgemeine nötige Bedingungen für eine Seekarte. Das Kartennull für Landvermessungen und für die Seekarten der deutschen Küsten. Einige Begriffe aus der Gezeitenlehre. Der Tidenhub. Bezugsebenen für das Kartennull.

**Thomas** - Madagascar. - Note sur les marées et courants côtiers produits par les cyclones tropicaux [Madagascar. *Notae de aestibus et currentiis litoreis a cyclonibus tropicalibus excitatis*]. 1 tabl., 3 graph. Un. Géod. & Géophys. Int., Ann. Comm. Etude Raz de Marée, 4, 67-89. Paris (1934). **a - 1422**

Remarques et observations relatives au fait de la production à l'avant des cyclones tropicaux d'une élévation sensible du niveau de la mer et, en outre, de courants parallèles à la côte. Dans ses conclusions l'A. affirme que le gonflement de la mer précédant à très grande distance le cyclone est un phénomène de peu d'importance au Madagascar, tandis que l'existence de très forts courants marins autour du centre du cyclone est indiscutable. Ces courants constituent la cause réelle des raz de marée et il faut tenir compte de leurs effets dans les travaux de construction et d'aménagement des ports de l'Ile de Madagascar.

**Tikhomirov I. K.** - L'état actuel de la question du régime hydrologique de la Mer Caspienne [*Quaestio de regimine hydrologico Maris Caspici*]. (En russe). Izv. Gos. Gheogr. Obstsch. (Bull. Soc. Géogr.), LXVII, 2, 217-228. Moskva-Leningrad (1935). **a - 1423**

L'A. donne un résumé des résultats des travaux faits au cours des dernières 50 années sur le régime hydrologique de la Mer Caspienne, tout en faisant observer que malgré l'abondance du matériel scientifique (v. liste bibliographique à la fin de l'article), le problème du bilan hydrologique de la Mer Caspienne est encore loin de sa solution. L'A. met surtout en évidence le manque d'exactitude des cartes existantes et des plans qui servent à la détermination du niveau de cette mer, et qui constituent la base fondamentale de toute étude du régime hydrographique d'un bassin aquatique.

**Tydeman G. F.** - Notes on Phenomena of a geophysical Nature [*De quodam phaenomeno geophysico*]. E. J. Brill. Leiden (1936). **a - 1424**

Among the topics dealt with there are to be noticed, " The lunar atmospheric T. F. tide discovered by Dr. C. Braak ". " A special feature of the tides of the ocean, " and " The secular variation of the ocean-level, implying the formation of continental shelves and other consequences (sunken areas and river-beds atolls) ".

**Vercelli F.** - Analisi delle sesse termiche nelle acque della Baia di Palma de Mallorca [*Sessae thermicae in baja Balearis Majoris*]. 2 diagr. f. t., 27 pp. Not. y Resum., Ser. II, No. 93. Madrid (1936). **a - 1425**

Le fluttuazioni termiche interne. Il metodo di analisi. Analisi. Calcoli. Conclusioni. Bibliografia.

**Vignal J.** - Les changements du niveau moyen des mers le long des côtes en Méditerranée et dans le monde [*Marium livelli medii mutatio ad litora Mediterranica atque etiam ad litora totius orbis*]. 52 pp. A. Dumas. Paris (1935). **a - 1426**

**Witting R.** - Mean Sea Level and Its Changes [*De livello medio marino eiusque mutationibus*] Bull. Géod., 45, 304-307. Toulouse-Paris (1935). **a - 1427**

Proposals for international cooperation.

**Admiralty** - The Admiralty Tide Tables (Standard Edition). Part I for 1935 [*Tabulae pro aestibus ad Classis Praefecturam pertinentes. Pars Ia, A. 1935*]. London (1934).

( — ) Id. Id. Abridged Edition. Part I, for 1935. London (1934).

( — ) Id. Id. Standard Edition. Part I, for 1936. London (1935).

( — ) Id. Id. Abridged Edition. Part I, for 1936. London (1935). **a - 1428**

**Association d'Océanographie physique. Union Géodesique et Géophysique Internationale** - Publication Scientifique No. 3. Bibliography on Tides and Certain Kindred Matters. Fourth Instalment [*Aestuum bibliographia*]. 38 pp. Secr. Assoc. The University. Liverpool (1936). **a - 1429**

Publications issued before 1910. Id. issued during 1931 to 1934 inclusive.

**Bureau Hydrographique International** - Répertoire Général des services marégraphiques et des observations marégraphiques (suite). [*Index generalis munerum mareographicorum et observationum mareographicarum*]. Rev. Hydrogr., XII, 2, 31-49. Monaco (1935). **a - 1430**

Belgique. Yougoslavie. Grèce. Finlande. Chili. Canal de Suez.

**Bureau Hydrographique International** - Echelle de marée type « Beaufort » [*Modulus pro aestibus* Beaufort]. Rev. Hydrogr., XII, 2, 137. Monaco (1935). **a - 1431**

Echelle employée par la navire hydrographe « Beaufort » et imagineé par le lieutenant-commander R. H. Kennedy; elle est construite à l'aide de trois manches de gaffes en sapin de Norvège.

**Deutsche Seewarte** - Harter Gezeitenstrom in der San Bernardino-Strasse [*De notanda currentia aestuosa in Strictu Scti. Bernardini*]. Seewart, IV, 4, 186-187. Hamburg (1935). **a - 1432**

Kurze Notiz dem Meteorologischen Tagebuch eines in der Ostasienfahrt beschäftigten Dampfers für den 6. Januar 1935 entnommen. Erläuternde Ammerkung.

**Ghidrografitscheskoje Oupravlenije** - Tableaux des temps et des niveaux des marées hautes et basses des points particuliers des mers du Nord pour 1935 (mai-décembre). [*Tabulae pro temporibus et livellis aestuum marinorum in praecipuis regionibus Marium septentrionalium*]. Tabl., 102 pp. Izd. Ghidrogr. Oupr. Leningrad (1934). **a - 1433**

**Statens Meteorologisk-Hydrografiska Anstalt** - Vattenstånden vid Rikets kuster 1933 [*De aquarum livellis ad litora Suetiae, 1933*]. (Swed. & Engl. Text). Tabl., 23 pp. Årsbok, XV, 3. Stockholm (1936). **a - 1434**

Tables indicating the registrations at the Swedish mareograph stations: water stages in cm. below index. Index-height.

**U. S. Coast & Geodetic Survey** - Manual of Tide Observations [*Liber de aestuum observationibus*]. 26 figs. U. S. Dpt. Comm., Coast & Geod. Surv., Spec. Publ. 196, iv+1-82. Washington (1935). **a - 1435**

This manual is issued for the purpose of giving the general requirements of the United States Coast and Geodetic Survey in carrying on its tidal work and to serve as a guide to those engaged in taking tide observations. It includes instructions for the maintenance of primary tide stations and also for securing tidal data necessary in hydrographic surveys. The computations given cover the work necessary for the determination of datum planes and tide reducers in hydrographic surveys and the calculation of the nonharmonic constants published in the Tide Tables.

**Cot.** - Marée anormale à Marseille [*De aestu abnormi Massiliae*]. Un. Géod. & Géophys. Int., Ann. Comm. Etude Raz de Marée, 4, 61-62. Paris (1934). **a - 1436**

Renseignements au sujet des marées anormales observées à Marseille le 23 octobre 1923 et le 24 octobre 1933, qui démontrent qu'il y a une concordance entre les actions de la marée proprement dite, du vent et de la pression barométrique.

**An.** - Tide Tables: Germany, Brazil - Tables des marées: Allemagne, Brésil [*Tabulae pro aestibus. Germania. Brasilia*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 95-96. Monaco (1935). **a - 1437**

Information on the issue by the Deutsche Seewarte of the « Gezeitentafeln für das Jahr 1936 » and of the « Taboas das Marés » published by the Rio de Janeiro National Observatory (1935 edition).

**An.** - Répertoire général des services marégraphiques et des observations marégraphiques (suite) [*Index generalis munerum mareographicorum et observationum mareographicarum*]. Rev. Hydrogr. XIII, 1, 53. Monaco (1936). **a - 1438**

Argentine, Brésil, Iles Britanniques, Pérou.

## Undarum motus.

**Bereskin W. A.** - Beobachtungen über Elemente von Wellen [*De observatis undarum elementis*]. (In Russ.). 3 Fig., 1 Tab. Trans. Arct. Inst., XXIX, Scient. Res. Exped. Icebr. « Lütke », 1934, 47-52. Leningrad (1935). **a - 1439**

Bericht über die während der Fahrt des Eisbrechers « Lütke » von Vladivostok bis Murmansk ausgeführten Beobachtungen über die einzelnen Wellenelemente der durchgekreuzten Meere, mit besonderer Berücksichtigung der Höhe, der Periode und der Länge der Wellen.

**Gaye & Walther F.** - Der « Seebär » vom 19. August 1932 in der Deutschen Bucht der Nordsee [*De unda die 19 Augusti 1932 in regione nomine* Deutsche Bucht *Maris Nordici*]. 2 Tab., 1 Taf. Ann. d. Hydr., LXII, 8, 317-322. Berlin (1934). **a - 1440**

Berichte von Augenzeugen den Tageszeitungen entnommen und Betrachtungen über die Ursachen der am 19. August 1932 nachmittags an zahlreichen Küstenpunkten der Deutschen Bucht der Nordsee plötzlich aufgetretenen starken Wasseranschwellung, teilweise mit nachfolgenden Schwingungen. Nach der ganzen Art der Erscheinung handelt es sich um einen « Seebär ». In den vorliegenden Tabellen sind alle Stationen aufgeführt, für welche brauchbare graphische Aufzeichnungen über die Wasserstände, Windverhältnisse und den Luftruck an dem Tage vorliegen. In einer Abbildung sind für eine Anzahl besonders bemerkenswerter Stationen die Beobachtungen graphisch dargestellt.

**Habu K.** - Proper Oscillations of the Sea of Continental Shelf [*De propria oscillatione maris in platea continentali*]. 5 figs. Mem. Coll. Sc., Ser. A, 18, 247-253. Kyoto (1935). **a - 1441**

Author expresses the opinion that conspicuous oscillations indicated by mareograms on the straight coast of an open sea on occasions of marine earthquakes or cyclonic storms, are nothing but undulations of the sea of conti-

nental shelf. To confirm this view he has measured the dimension of the shelf seas on the charts of various parts of the Japanese coast and also of some foreign countries, and calculated the corresponding periods in order to show that the calculated periods fairly satisfactorily agree with the observed values.

**Havelock T. H.** - Ship Waves: The Relative Efficiency of Bow & Stern [*De unda navis de que relativa efficientia prorae et puppis*]. 3 figs. Proc. Roy. Soc., CXLIX, 868, 417-426. London (1935). **a - 1442**

The main effect of fluid friction in regard to the production of waves by a ship may be described as a decreasing efficiency of elements of the ship's surface with increasing distance from the bow. A reducing factor, of a semi-empirical nature, is introduced into the theory of ship waves to represent this effect. With certain assumptions, calculations are made for the wave profile for a simple model, and curves are also given; these are compared with available experimental data. It appears that, as a rough estimate for such forms at moderate speeds, the efficiency of the stern is of the order of 60 % of that of the bow. Curves are also drawn to show the corresponding change in the wave resistance. The introduction of the reducing factor leads to different wave resistances for a model going ahead and going astern, when the model is not symmetrical fore and aft; this is illustrated by calculations and curves for a particular case (A).

**Schumacher A.** - Ueber Stromkabbelungen, besonders im Guineastrom und seiner Umgebung [*Plicatio aquae currentiarum confluentiae causa. Agitur praecipue de currentia ad Guineam deque regionibus adiacentibus*]. 2 Taf., zahlr. Tab. a. T., 1 Tab. i T. Ann. d. Hydrogr., LVIII, 10, 273-382. Berlin (1935). **a - 1443**

Gebiete zahlreicher Beobachtungen nach vorhergehenden Literaturangaben, besonders den vom Meteorologischen Komitée London 1874 und 1876 herausgegebenen « Remarks to accompany Monthly Charts of Meteorological Data for Square 3 ». Verteilung der Kabbelungen nach Eingradfeldern. Natur der Erscheinung: Richtung und Fortbewegung, Stromlinien der Oberflächenbewegung und der Luftbewegung, Temperatur, Aussehen, begleitende Geräusche. Bedeutung der Kabbelungsbeobachtungen für die Entscheidung über den Charakter von Strömungen.

**Deutsche Seewarte** - Auffallende Beobachtungen von Meereswellen [*Observationes notabiles undarum marinarum*]. Seewart, IV, 6, 260-263. Hamburg (1935). **a - 1444**

Anführung verschiedener Beispiele von ungewöhnlich heftigen Brandungen; Erörterung ihrer Ursachen; empfehlenswerte Messungsverfahren.

**Deutsche Seewarte** - Brandende Dünung im Hafen von Callao [*De maris notanda undulatione in portu* Callao]. 1 Taf. Seewart, V, 3/4, 115-116. Hamburg (1936). **a - 1445**

Schilderung des an der Küste von Südperu auftretenden starken Schwells, der sogen. Braveza, der im Hafen von Callao eine besonders starke Heftigkeit aufweist. Anmerkung der Schriftleitung in Bezug auf die Ursache dieser Erscheinung.

**An.** - Die stürmische See wird durch Druckluft beruhigt [*Mare tempestosum placatur aëre compresso*]. 1 Taf. m. 4 Abb. Umschau, XL, 1, 12-13. Frankfurt a. M. (193 ). **a - 1446**

Kurze Notiz über eine deutsche Erfindung, die sich besonders für den Flugverkehr über das Meer eignet.

## Hydrodynamica theorica.

**Bonnet L., Blockmans J. & Lamoen J.** - Note sur le Laboratoire de Recherches Hydrauliques d'Anvers [*De laboratorio pro investigationibus hydraulicis Antuerpiae*]. 1 fig., 1 tabl., 1 pl. h. t. Ann. Trav. Publ., XXXVI, 3, 403-425. Bruxelles (1935). **a - 1447**

Description détaillée des recherches du Laboratoire des Recherches Hydrauliques d'Anvers en vue d'étudier les problèmes de l'Escaut maritime qui constituent un domaine très spécial. La description du Laboratoire est précédée par un aperçu général des lois de similitude hydrodynamique qui permettent de calculer les coefficients par lesquels il faut multiplier les quantités expérimentales pour obtenir celles de la nature. Pour conclure les AA. donnent un bref résumé des expériences actuellement en cours au Laboratoire d'Anvers et une description sommaire de l'appareil produisant la marée.

**Cisotti U.** - Sulla regolarizzazione idrodinamica degli estremi di una lamina rettilinea [*De regularisatione hydrodynamica in extremitatibus laminae cuiusdam rectilineae*]. Mem. Pont. Acad. Sc. Novi Lyncaei, ser. III, v. II, 51-78. Città del Vaticano (1936). **a - 1448**

L'A. tratta il problema della possibilità di regolarizzazione idrodinamica degli estremi di una lamina rettilinea investita da una corrente traslocircolatoria piana. La regolarizzazione è ottenuta per uno degli estremi in assenza di vortici o di sorgenti, e per entrambi gli estremi in presenza di un vortice fisso. Una corrente traslatoria, in presenza d'una sorgente aperta nel centro di un bordo della lamina, soddisfa altresì alla desiderata regolarizzazione.

**Dietrich G.** - Zur Dynamik des atlantischen Zweiges des Agulhasstromes [*De dynamica in parte atlantica Currentiae* Agulhas]. 1 Taf. Ann. d. Hydrogr., LXIII, 10, 383-387. Berlin (1935). **a - 1449**

Die hier gewonnenen Ergebnisse stützen sich auf die verschiedenen in 100 m Tiefe im Südsommer und im Südwinter beobachteten Temperaturverteilungen, wodurch gezeigt wird, dass an der Festlandsbegrenzung zwischen Saldanha- Bucht und Kap der Guten Hoffnung der jährliche Gang der Wassertemperatur in 100 m Tiefe zum gewohnten Gange im Ozean und in der Atmosphäre und selbst zum Temperaturverlauf in 100 km von der Küste invers ist. Dem Vf. nach hängt diese Erscheinung mit dem jährlichen Gang der Geschwindigkeit des Agulhasstromes zusammen, was hier näher erklärt wird.

**Dietrich G.** - Aufbau und Dynamik des südlichen Agulhas-Stromgebietes [*De structura et dynamica in regione meridionali Currentiae* Agulhas]. 66 Abb., 11 Tab. Veröff. Inst. Meeresk. N. F. A. Geograph.-naturw. Reihe, 27, 3-79. Univ. Berlin (1935). **a - 1450**

In der vorliegenden Arbeit sind der Aufbau und die Bewegung des gesamten Wasserkörpers im südlichen Agulhasstromgebiet abgeleitet und erklärt, und ein Versuch gemacht, das alte und neue Beobachtungsmaterial nach den jüngsten Arbeitsmethoden auszuwerten. Die Entwicklung der Erkenntnis von den Wasserbewegungen im südlichen Agulhasstromgebiet. Das Quellenmaterial und seine Verarbeitung. Aufbau der Wassermassen. Hydrodynamik des südlichen Agulhasstromgebietes.

**Favre Henry** - Etude théorique et expérimentale des ondes de translation dans les canaux découverts [*Studium ad experimentum undarum quae dicuntur translationis in canalibus apertis*]. Edit. Dunod. Paris (1935). **a - 1451**

Après avoir exposé ses recherches théoriques dans la première partie de son ouvrage, l'A. décrit, dans la seconde, l'installation utilisée pour ses essais pour l'étude de l'écoulement de l'eau dans les canaux ouverts, étude

qui est d'une extrême complexité. Ce problème présente un caractère pratique depuis la construction de grandes usines hydro-électriques à basse pression et celle des canaux de navigation intérieure pour bateaux de fort tonnage. Dans la troisième partie de son ouvrage, l'A. donne quelques exemples d'application pratique des données théoriques exposées dans les deux premières parties.

**Greco L.** - Impianti sperimentali per lo studio del moto ondoso nel porto di Napoli [*De muneribus ad motum undosum studendum in portu Neapolitano*]. 13 fig. f. t. Ann. Ist. Sup. Nav., IV, 2, 125-132. Napoli (1935). **a - 1452**

Descrizione della stazione dinomareometrica progettata dall'A. e costruita sulle opere foranee del porto di Napoli. per lo studio sperimentale delle azioni dinamiche esercitate dalle onde sul paramento esterno dei moli e delle dighe di tipo verticale.

**Hachey H. B.** - A Derivation of Bjerknes' fundamental hydrodynamical Concept [*Derivatio quaedam a fundamentali concepto dynamico Bjerknesiano*]. 1 fig. Int. Rev. ges. Hydrobiol. u. Hydrogr., XXI, 1934, 331-336. Leipzig (1935). **a - 1453**

The fundamental hydrodynamical concept as derived by Bjerknes, which deals with the value of the « circulation acceleration » for a closed curve in the sea has been obtained by using fundamental theorems of hydrodynamics. A direct derivation is presented by introducing the idea of « circulation acceleration » into the equations of motion of a compressible viscous fluid. (A:s rés).

**Héguy M.** - Note sur l'écoulement de l'eau dans un canal à profil complexe [*Defluxus aquae per canalem multiplicibus sectionibus praeditum*]. Ann. Ponts et Chaussèes, CVI, Vol. I, 5. Paris (1936). **a - 1454**

**Hidaka K.** - Tidal Oscillations in a Rectangular Basin of Variable Depth. [*Aestus oscillationes in bacino quodam rectangulari variabili profunditate*]. Mem. Imp. Mar. Obs., V, 1, 10-23. Kobe (1932). **a - 1455**

**Hidaka K.** - Explication théorique des seiches dans la baie d'Osaka [*Explicatio theorica sessarum in baja* Osaka]. 4 figs. Mem. Imp. Mar. Obs., V, 1, 41-49. Kobe (1932). **a - 1456**

**Hidaka K.** - Anwendung der Stokes'schen Methode auf die Theorie der winderzeugten Meeresströmungen [*Methodus* Stokes *applicatur ad theoriam currentiarum marinarum ventosarum*]. Mem. Imp. Mar. Obs., V, 2, 51-62. Kobe (1932).

( — ) Tidal Oscillations in a Circular Basin with an Elevation or a Depression at its Centre. Ibid., 63-67. Kobe (1932). **a - 1457**

**Hidaka K.** - A Mathematical Investigation on the Development of Wind Currents in Heterogeneous Waters [*Investigatio mathematica de progressu currentiarum ventosarum in aquas heterogeneas*]. (In Engl., Jap. Summ.). 2 figs. Mem. Imp. Mar. Obs., V, 3, 105-139. Kobe (1933).

( — ) Non Stationary Ocean - Currents. Part I. Ibid., 141-266. Kobe (1933). **a - 1458**

**Hidaka K.** - Contributions to the Theory of Stationary Drift Currents in the Ocean [*Contributio in cognoscendas currentias fixas declinationis in Oceano*]. (In Engl., Jap. Summ.). 4 tables 2 figs. Mem. Imp. Mar. Obs., VI, 2, 105-136. Kobe (1936). **a - 1459**

I. The drift currents when the coefficient of eddy viscosity depends on the rate of gliding between successive layers. - II. The drift currents when the coefficient of eddy viscosity depends on the square of the velocity of currents. - III. Relation between the apparent vertical distribution of eddy viscosity and the deflection angle on the sea-surface.

**Hidaka K.** - Tables for Computing the Mathieu Functions of Odd Order $se_1 (\varkappa, \theta)$, $ce_1 (\varkappa, \theta)$, $se_3 (\varkappa, \theta)$, . . . , $se_7 (\varkappa, \theta)$ e $ce_7 (\varkappa, \theta)$ and Their Derivates [*Tabulae ad calculandas functiones* Mathieu]. (In Engl. Jap. Summ.). 8 tables. Mem. Imp. Mar. Obs., VI, 2, 137-157. Kobe (1936). **a - 1460**

1. Introduction. - 2. Definition. - 3. Derivatives of Mathieu functions. - 4. Case $\Theta$ negative. - 5. Method of computation. - 6. Modified Mathieu functions.

**Hidaka K.** - Application of Ritz's Variation Method to the Determination of Seiches in a Lake [*Methodus variationis a* Ritz *inventa applicatur ad sessas in lacu determinandas*]. (In Engl., Jap. Summ.). Mem. Imp. Mar. Obs., VI, 2, 159-174. Kobe (1936). **a - 1461**

The method of Ritz based on the computation of variation has been applied to the solution of curious problems of mathematical physics, especially in the theory of elasticity. A series of very successful results were obtained on the vibration of elastic plates. In this paper author intends to apply Ritz's method to the integration of Chrystal's differential equation of seiches and to introduce a rather simple method of determining the seiches theoretically.

**Koenuma K.** - On the Seiches of Lake Tôya [*Sessae in lacu* Tôya]. (In Engl., Jap. Summ.). 3 figs. Mem. Imp. Mar. Obs., VI, 1, 13-32. Kobe (1935). **a - 1462**

On hand of data gathered on the seiches of Lake Tôya, which has a circular form with a nearly circular island in its center, author gives the theory of the oscillations of a circular lake consisting of two sectorial parts of different depths, being this the natural features of the Lake Tôya, as is shown on its bathymetric chart.

**Kurihara K.** - On the Transmissibility of Long Waves along a Canal when there Are Abrupt Changes in Depth [*De undarum longarum transmissibilitate per canalem cum in canali exstant variationes profunditatis*]. 1 fig. Trans. Imp. Acad., XI, 8, 316-318. Tokyo (1935). **a - 1463**

It is already known that a water wave is partly reflected and partly transmitted at a point where there is an abrupt change in the section of the canal. In the present paper the problem is extended to the case when there are two such points, so that the portion of the canal between them is shallower or deeper than other portions in order to determine the effect of such condition upon the transmissibility of long waves.

**Mattioli G. D.** - Sopra l'influenza della viscosità del fluido nei regimi turbolenti [*De influentia viscositatis fluidae in regiminibus turbulentis*]. Atti R. Acc. delle Sc. di Torino. Cl. Sc. Fis., Mat. e Nat., LXX, t. 1, disp. II, 220-239. Torino (1934-1935). **a - 1464**

Nella teoria dell'autore sulla turbolenza è introdotta la considerazione della viscosità del fluido; ciò che permette di valutare l'influenza del numero di Reynolds per l'efflusso nei tubi.

**Nomitsu T.** - Studies on the Coastal Ground-Water. (1) Effect of Sea-Salt, 2nd Report [*De aquis subterraneis litoreis. Salis marini effectus*].

(In Jap.). 5 figs. Nipp. Gakuzyutu Kyôkwai Hôkoku, 10, 628-633. Tokyo (1935). **a - 1465**

Example of the extension of author's theory of the contact surface of fresh- and salt-water, exposed in Mem. Coll. Sc. Kyoto, A, 10, p. 279, to (1) a case where rain-water is percolating over the ground-water table and (2) a case of artesian ground-water. The results are verified with data of actual measurements made by d'Arigo and by Pennick. Author discusses also the feeble salinity of fresh ground-water.

**Toyohara Y.** - A Study on the Coastal Ground Water at Yumigahama, Tottori [*De aquis subterraneis litoreis in* Yumigahama Tottori]. 6 figs. Mem. Coll. Sc., Ser. A, 18, 295-309. Kyoto (1935). **a - 1466**

To complete previous observations. author verifies the model experiments of Nomitsu's theory on the contact surface of fresh- and salt-water under the ground near a sandy shore by means of measurements on a real coast at Yumigahama. The results obtained show that the theory of coastal ground-water based on hydrodynamical considerations, holds good for the actual sea-shore as well as for model experiments.

**Tuboi I.** - Free Oscillations in a Lake Having non-Elongated and Smooth Boundary [*Oscillationes liberae in lacu qui limites habeat non-elongatos atque levigatos*]. (In Engl. Jap. Summ.). 1 table. Mem. Imp. Mar. Obs., VI, 2, 227-237. Kobe (1936). **a - 1467**

Attempt to solve the problem of free oscillations of water in a lake which has an irregular boundary. Instead of reducing, as usual, this problem to an one-dimensional canal of varying section, A. solves it as a two-dimensional one.

# GEOPHYSICA

## Meteorologia.

**Ångström A.** - The Temperature at Different Latitudes in Its Dependence of Atmospheric Circulation [*De temperatura, diversis latitudinibus, ex circulatione atmosphaerica*]. 1 fig. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V. V$^{e}$ Ass. Gén., Sept. 1933, Lisbonne, II Mém. & Disc., 211-218. Paris (1935). **a - 1468**

Author studies the influence of the radiation, the advection and the convection upon the distribution of the temperature at different latitudes, with especial regard to the influence of circulation upon the energy distribution. Account of the following discussion.

**Barlow E. W.** - Rainbows and Fog Bows [*De iride atque arcubus caliginosis*]. 4 figs., 1 table. Mar. Obs., XIII, 121, 15-17. H. M. Stat. Off. London (1936). **a - 1469**

Summary of the knowledge of rainbows and fog bows at sea, to which the British corps of voluntary marine observers has added some in recent years with special reference to the secondary rainbow, the supernumerary bows, the variation of rainbows, the formation of a rainbow, the conditions of rainbow observation, the other rainbows, the size of raindrops, the tog bow, the reflected and reflection rainbows, and the lunar rainbows.

**Barranjard S. A.** - Forecasting from Barometric Characteristics [*De providendis characteristicis barometricis*]. 9 diagrs. Monthly Weath. Rev., LXIII, 7, 222-223. Washington (1935). **a - 1470**

Some explanation of the connection between barometric characteristics and weather conditions, studied in nine stations, one of which – interesting – is Fernando de Moronha. The A. considers the probabilities found of use for short–period weather forecasting.

**Baur F.** - Der Wärmehaushalt der Lufthülle auf der Nord-halbkugel der Erde [*De oeconomia quoad calorem stratosphaericum in hemisphaerio nordico*]. 4 Abb. Umschau, XL, 17, 321-326. Frankfurt a. M. (1936). **a - 1471**

Kurzer Bericht über die neuen Untersuchungsergebnisse: kurzwellige Einstrahlung, die langwellige Ausstrahlung; das Strahlungsgleichgewicht; Einstrahlung, Ausstrahlung und Wärmetransport im Januar und Juli in Abhängigkeit von der geographischen Breite.

**Becker R.** - Ueber den jährlichen Temperaturgang auf dem Atlantischen Ozean [*De annua temperatura Oceani Atlantici*]. 3 Taf. Ann. d. Hydrogr., LXIV, 5, 198-203. Berlin (1936). **a - 1472**

Für 28 ausgewählte Punkte des Atlantischen Ozeans werden Tabellen der Monatsmittel der Lufttemperatur und der Differenz Luft-minus Wassertemperatur entworfen. Einige dieser Jahresreihen der Monatsmittel werden graphisch dargestellt; bei einem Teil geschieht dies auch unter Verwendung von Polarkoordinaten. Weiterhin werden unter Anlehnung an die Hauptschiffahrtswege Isoplethen entworfen, welche die Veränderungen des Jahresganges der Lufttemperatur von Ort zu Ort zur Anschauung bringen. Aus den Differenzen zwischen Luft- und Wassertemperatur ergeben sich für den Wärmehaushalt interessante Schlüsse, die aber schon durch kleine systematische Fehler der Lufttemperaturmessungen wesentlich beeinträchtigt werden konnten (Vf.).

**Bent A. E.** - Use of Ultra-High Frequencies in Tracking Meteorological Balloons [*De utendis frequentiis ultralongis in sphaericis meteorologicis adhibendis*]. Nat. Res. Counc., Amer. Geoph. Un. Trans., 16th Ann. Meet., Apr. 25-26, 1935, I, 141- 144. Washington D. C. (1935). **a - 1473**

Report on experiments conducted at the Blue Hill Observatory, concerning the detail of the balloon, the meteorograph, the radio sending, and the radio-receiving and recording.

**Bergeron T.** - L'utilisation des « Météorogrammes » pour les recherches synoptiques [*De utendis Meteorogrammatis ad investigationes synopticas ducendas*]. 5 fig. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V. V-e Ass. Gén., Sept. 1933, Lisbonne, II Mém. & Disc., 269-286. Paris (1935). **a - 1474**

Par le mot « météorogramme » l'A. entend dans le présent Rapport un diagramme où sont représentés simultanément, par rapport à un axe commun des temps (t) les variations détaillées de plusieurs éléments météorologiques, en fonction de t. Un météorogramme complet consiste donc en un *baro-thermo-hygro-anémo-ombrogramme*. L'A. indique la source et les origines de ces météorogrammes, en préconise l'emploi sur une large échelle et en illustre les extrêmes avantages.

**Birkeland B. J.** - Mittel und Extreme der Lufttemperatur [*De mediis atque extremis valoribus aëris temperaturae*]. 3 Textfig., Tab. Geofys. Publ., XIV, 1, 1-155. Oslo (1936). **a - 1475**

Die Beobachtungen, Monats- und Jahresmittel für 23 Stationen umfassen die Jahre 1861-1935.

**Blake D.** - Mexican West Coast Cyclones [*De cyclonibus in litoribus occidentalibus Mexicanis*]. 2 figs. Monthly Weath. Rev., LXIII, 12, 344-350. Washington D. C. (193 ). **a - 1476**

Discussion on two classes of storms occurring on the West Coast of Mexico: tropical hurricanes that originate in low latitudes over the Pacific during summer and fall and storms that develop off the coast of lower California frequently during autumn and winter. Analysis of these storms, theory as to their origin. Some remarkable storms recorded.

**Bliss E. W.** - A Forecast of Barbados Rainfall [*De praedictione quadam circa pluviam in* Barbados]. 3 figs. Quart. Journ. R. Meteorol. Soc., LXII, 263, 45-48. London (1936). **a - 1477**

In a previous paper a formula for the combined rainfall of several of the West Indian Islands have been given (Quart. Journ., LVI, p. 67, 1930), but only nine stations were used. On hand of data comprising some 150 stations of the Island, A here gives a formula elaborated for the Barbados island alone. By means of this formula it is possible to forecast rainfall with sufficient exactitude.

**Boy - Ed. E.** - Tropische Orkane und die Bedeutung des Orkan-Warndienstes für die Seeschiffahrt [*De tempestatibus tropicalibus deque momento circa tempestatum provisionem pro navigatione*]. Hansa, 4. Hamburg (1936). **a - 1478**

**Boy - Ed. E.** - Meteorologischer Warndienst und Schiffssicherheitsvertrag [*De muneribus ad condiciones meteorologicas providendas deque regulamentis pro securitate navis*]. 1 Taf. Seewart, IV, 4, 154-159. Hamburg (1935). **a - 1479**

Bericht über einige im September 1934 in den ostchinesischen und japanischen Gewässern beobachtete Fälle von Taifun, durch welche die Notwendigkeit eines besseren Wetternachrichtenaustausches gezeigt wird.

**Brooke Smith L. A.** - Comparison of the Severity of the Weather in the North Atlantic During the Last Five Winters [*Comparatio inter rigores in Atlantico nordico abhinc quinque proximos hiemes*]. 1 pl., 1 table. Mar. Obs., XIII, 121, 18-20. H. M. Stat. Off. London (1936). **a - 1480**

An attempt, based on the better information derived from the greatly improved system of observation, which has been in use since British Selected Ships were organized in 1930.

**Brooke Smith L. A.** - The Observation of Wind Force at Sea [*De venti vi in navi observata*]. 1 table. Mar. Obs., XIII, 122, 54. London (1936). **a - 1481**

Note emphasizing the importance of observation of wind force at sea completed by a German scale proposed for internationalization of these observations. The international Marine Meteorological Commission appreciated the scale, but agreed that it required further study. It is published in « Mar. Obs. », for examination by British seamen.

**Brooks C. E. P.** - Variations of Pressure near the British Isles during 1935 [*Pressionis variationes apud insulas Britannicas, A. 1935*]. Meteorol. Mag., Jan. London (1936). **a - 1482**

**Brooks C. E. P.** - The Classification of Meteorological Literature [*Classatio rerum meteorologicarum*]. Quart. Journ. R. Meteorol. Soc., LXII, 263, 134-144. London (1936). **a - 1483**

Information on the new classification, which has been provided, after discussions lasting for seven years, by a Commission for Bibliography appointed by the International Meteorological Organisation. The new classification was adopted by the International Meteorological Congress at Warsaw in September, 1935, and recommended for international use. As an appendix to the article author gives the full tables for meteorology, which are limited to pure meteorology. The new classification has been introduced into the Society's bibliography in the issue for January to March, 1936.

**Brooks Ch. F. & Harwood E. M.** - Cloud-Observations in Short-Time Forecasting of Snow-Storms [*De observandis nubibus, condicionibus atmosphaericis imminentibus providendis*]. 1 fig., 4 tables. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th. Ann. Meet., Apr. 25-26, 1935, 1, 110-114. Washington D. C. (1935). **a - 1484**

This paper presents another example of the usefulness of clouds as an areological aid in forecasting. (See Ch. F. Brooks. « The Value of Cloud-Observations », Trans. Amer. Geoph. Un., 14th Ann. Meet., 84-85, 1933).

**Burchard O.** - Klimatographische Witterungsschilderung. no. 52: Kanarische Inseln. Typischer Verlauf eines Sommertages in « La Mocana » bei La Orotava auf Tenerife [*Descriptiones climatographicae coeli condicionum. N. 52. Insulae Canariae. Ratio atmosphaerica ad diem quamdam aestivam pertinens in* « La Mocana » *apud* Orotava *in promunturio* Tenerife]. Ann. d. Hydrogr., LXIII, 11, 454-455. Berlin (1935). **a - 1485**

Witterungsschilderung am Beobachtungstag, 4. August 1935. (Aus der Sammlung des überseeischen meteorologischen Dienstes der Deutschen Seewarte).

**Byers H. R.** - On the Meteorological History of the Hurricane of November 1935 [*De historia meteorologica tempestatis mense Novembri 1935*]. 3 figs. Monthly Weath. Rev., LXIII, 11, 318-322. Washington D. C. (1935). **a - 1486**

Author discusses a few features of the tropical hurricane which took place during the first week of November 1935, and which had several outstanding abnormalities; principal among these were the high latitude and late season of its origin, the singular distribution of the meteorological elements around it, its unusual path, and its odd dissipation in the Gulf of Mexico; they are all dealt with in the present paper.

**Byers H. R.** - The Airplane as a Free-Air Sounding Medium (Abstract) [*De aeronavi ad scandalia ducenda in atmosphaera libera (Compendium)*]. Nat. Res. Counc., Amer. Geoph. Union, Trans 16th Ann. Meet., Apr., 25-26, 1935, 1, 162. Washington D. C. (1935). **a - 1487**

After showing that the airplane in proper hands and properly equipped can be the quickest, most dependable, and most economical means for carrying a meteorograph to ordinary height, author gives the required standards for obtaining flights of a reliable nature. A proposal of collaboration between meteorological services and commercial air-lines is formulated.

**Calvert E. B.** - The Hurricane-Warning Service and Its Reorganization [*Servitium tempestatibus providendis eiusque renovata ratio*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 117-121. Washington D. C. (1935).

(—) Montly Weath. Rev. LXIII, 3, 85-88. Washington D. C. (1935). **a - 1488**

History of the foundation and development of the hurricane-warning service, with especial regard to the activity of Father Vines, and the first reorganization of the Service in 1898 due to the Spanish-American War, after which steady improvements were made in the efficiency of the Service. Author illustrates therefore the reorganization of the service effective on July 1, 1935, which located the forecast-centers nearer to the regions where hurricanes are ordinarily observed. The reorganization program involves changes in the collection of observations from ships, the collaboration with the U. S. Coast Guard and the exchange of warnings issued at Washington, Jacksonville and New Orleans.

**Camm H. E. & Banfield H. E.** - The Frequency and Velocity of the Wind Above Sydney... From Pilot Balloon Observations at Sidney Weather Bureau During Period 1926-1932 [*De venti frequentia et velocitate super urbem* Sydney. *Ex observationibus deprompțis sphaericorum pilotorum auxilio in Officio Meteorologico urbis* Sydney, *A. 1926-32*]. 17 maps, 3 pp. Weath. Bur. Sydney (1934). **a - 1489**

**Cannegieter H. G.** - Pilotballonbeobachtungen im Passatgebiet an Bord des Dampfers « Stuyvesant » im Dezember 1934 [*De observationibus peractis in navi vaporali* « Stuyvesant », *sphaericorum auxilio in zona ventorum quorum nomen Etesiae, mense Decembri 1934*]. 1 Tab. Ann. d. Hydrogr., LXIII, 7, 286-287. Berlin (1935). **a - 1490**

Ergebnisse der Beobachtungen auf der Route von Madeira nach Paramaribo, welche mit dem Schouteschen Registriertheodolit mit Pendelaufhängung gemacht worden sind.

**Carpenter A. B.** - Subsidence in Maritime Air Over the Columbia and Snake River Basins [*Fixatio atque immobilitas aëris marini in bacino fluminum* Columbia *et* Snake]. 6 figs. Monthly Weath. Rev., CXIV, 1, 9-13. Washington D. C. (1936). **a - 1491**

Results of an investigation on the problem of the subsidence in the maritime air associated with low stratus clouds and fog in the Columbia and Snake River Basins, extended from January 19 to February 10, 1935 and from which it appears that dynamic heating, due to the movement of air from the sea to these basins and vice versa, plays an important part in the warm climate of the Pacific coast.

**Clarke C. B.** - Effect of the Atlantic Ocean on Temperatures in Eastern United States as Shown by Temperature-Wind Roses [*De effectu Oceani Atlantici in temperaturas regionum occidentalium ad Americae Status foederatos pertinentium. Effectus desumitur a rosis ventorum et temperaturarum*]. 5 figs., 2 tables. Monthly Weath. Rev., LXIII, 3, 88-91. Washington D. C. (1935). **a - 1492**

Part of a work containing an account of the results of a research concerned with some effects of the Atlantic Ocean upon the climate of Eastern United States, and especially with the effectiveness of the ocean in moderating temperature at various stations. To show, by some quantitative and graphical means, the influence of winds from the direction of the Atlantic Ocean upon the temperatures of coastal and inland stations temperature-wind roses were constructed: they are reproduced and commented in the text of the work.

**Clayton H. H.** - Meteorological Periods and Solar Periods [*Periodi meteorologicae et periodi solares*]. 3 figs. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 158-160. Washington D. C. (1935). **a - 1493**

Results of a study on the relations between meteorological and solar periods. A relation is shown between periods of solar radiation and air pressure.

**Crutchfield A.** - Flying Aroung a Waterspout [*De volatu circa columnam marinam*]. 5 pls. U. S. Nav. Inst. Proc., LXI, 6 (388), 845-851. Annapolis, Md. (1935). **a - 1494**

Account of observations made from the air at close hand of waterspouts, which explains some of the superstitions prevailing during the middle ages.

**Currie B. W.** - Ice Crystals and Halo Phenomena [*De crystallis glaciatis phaenomenisque halonis*]. 2 figs. Monthly Weath. Rev., LXIII, 2, 57-58. Washington D. C. (1935). **a - 1495**

Study of the vertical pillars of light frequently seen during the winter months above street lights, electric advertizing signs, and airport beacons in Western Canadian cities. The reason of the formation of the halo Observations show that the ice crystals which cause the artificial light pilars are also responsible for solar and lunar pillars, and 22° halos.

**Davies F. T.** - The Green Flash [*Radius viridis*]. Terr. Magn., XL, 117. Baltimore (1935). **a - 1496**

**Dedebant G.** - La géométrie isobarique [*De geometria isobarica*]. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V, V.e Ass. Gén., Lisbonne, 1933, II, Mém. & Disc., 13-34. Paris (1935). **a - 1497**

I. 1) L'extrapolation en météorologie, 2) Prévision et extrapolation. - II. L'évolution barométrique. - III. Le déplacement instantané des isallobares: notations - choix d'une échelle - vitesse d'une isallobare - accélération des isallobares - enveloppes d'isallobares - vitesse instantanée d'un centre - direction du déplacement instantané - module de vitesse - détermination pratique de la vitesse du centre - détermination de l'indicatrice de courbure - trajectoire du centre - profondeur du centre. - IV. Ajustement « parabolique » d'une perturbation: données du problème - passage aux cas réels - vecteurs conjugués par rapport à l'indicatrice de courbure - détermination de la vitesse - accélération - creusement et comblément. - V. La naissance et la mort des centres.

**Dedebant G. & Wehrle Ph.** - A propos de la « Théorie des Perturbations » de M. Giâo [*De theoria perturbationum a* Giâo *deprompta*]. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V. Ve Ass. Gén., Sept. 1933, Lisbonne, II Mém. & Disc., 92-111. Paris (1935). **a - 1498**

La présente critique est limitée au 2me volume « Les perturbations atmosphériques » de l'ouvrage publié par M. Giâo sur la « Théorie des Perturbations » dans le « Mémorial de l'Office National Météorologique de France », n° 21 et 22. Les AA. commencent par résumer aussi fidèlement et aussi clairement que possible les idées et les hypothèses de M. Giâo et font ensuite la critique de sa théorie de trois points de vue: physique, mathématique et valeur d'application.

**Dedebant G. & Wehrlé Ph.** - La circulation générale de l'atmosphère sur un globe uniforme déduite d'un principe de moindre dissipation [*Circulatio generalis atmosphaerica circa globulum uniformem deprompta a principio minimae dissipationis*] 5 fig., 1 table. Un. Géod. & Géoph. Int.,

Assoc. Météorol., Pr.-V. Ve Ass. Gén. Sept. 1933 Lisbonne, II Mém. & Disc., 181-210. Paris (1935). **a - 1499**

Après une introduction sur la circulation atmosphérique et l'application à l'atmosphère du « principe » de moindre dissipation, les AA. offrent une représentation cohérente et précise de la circulation générale bien plus satisfaisante que celle fournie par les partisans de la radiation solaire, considérée comme cause de l'entretien de la circulation générale. Ils indiquent pour conclure deux preuves de la faible influence de la radiation solaire sur les mouvements de l'atmosphère, dont la première est que l'expérience courante des cartes synoptiques montre l'indifférence de la situation météorologique à l'alternation du jour et de la nuit et la seconde est que le soleil, comme l'atmosphère, est un milieu fluide comportant une circulation générale et des perturbations.

**Deppermann C. E.** - Cloud Photography at the Manila Observatory [*De nubium photographia in observatorio Manillae*]. Monthly Weath. Rev., LXIII, 6, 191-192. Washington D. C. (1935) **a - 1500**

A few words as to the plan of campaign and the results achieved in a year's photography of clouds started in May 1934 by the Manila Observatory in order to correlate clouds with the various types of air currents that reaches the Philippines. Description of the method adopted and some details as to the camera and method of procedure.

**Diaz D.** - Le previsión del tiempo en México [*De providendis coeli condicionibus in Mexico*]. Bol. Junta Auxil. Jalisciense de la Soc. Mex. Geogr. y Estad., 18 de abril 1934, 189-216. Guadalajara (1934). **a - 1501**

**Diaz E.** - Sobre meteorologia austral [*De meteorologia australi*]. Bol. Centro Naval, LIV, 512, Mayo y Junio. Buenos Aires (1935). **a - 1502**

**Dobrovoljskij A. D.** - Nouvelles formes d'inscription des observations du Service Maritime [*Rationes formaeque novae quibus utitur Officium Maritimum pro inscriptionibus observationum*]. (En russe). Vestn. Edin. Ghidrometeorol. Slouzhby, 5, 22-24. Moskva (1935). **a - 1503**

**Doucette B. F.** - Typhoons and Depressions over the Far East, April 1-9, 1935. Id. September, October, November, December 1935, and January 1936 [*De typhonibus et depressionibus in Orientis extremis regionibus mensibus Aprili 1935, Sept. Oct. Nov. Dic. 1935, Januario 1936*]. Monthly Weath. Rev. LXIII, 4, 146-147, 9, 282-283; 10, 306; 11, 332; 12, 368-369; LXIV, I, 19. Washington D. C. (1935-36). **a - 1504**

Brief accounts of the typhoons occurred.

**Eegen A. P. C.** - Wolkenwaarneming aan boord bij vaartloopende schepen [*Observationes circa nubes in navibus navigantibus peractae*]. De Zee, 1. den Helder (1936). **a - 1505**

**Ehlerding C. W.** - Ueber den Wert von Bordwetterkarten [*De chartis meteorologicis earumque valore pro navigatione*]. 1 Taf. Seewart, IV, 4, 175-180. Hamburg (1935). **a - 1506**

Praktische Anweisungen für die Herstellung von Bordwetterkarten. Beispiele, die die Vorteile der Bordwetterkarten zeigen.

**Elsner (v.).** - Die Entwickelung der Wetterkarte und der Wettervorhersage [*Tabulae meteorologicae progressus et temporis prognosis*]. 4 Abb., Naturwiss. XXIII, 14, 217-226. Berlin (1935). **a - 1507**

Geschichtlicher Ueberblick der Entstehung von Wetterkarten und Wettervorhersage von Alters her bis jetzt mit Reproduktionen von der ersten synoptischen Wetterkarte nach H. W. Brandes (1820), den ersten auf Grund telegraphischer Wetterberichte im « Bulletin de l'Observatoire Impérial » veröffentlichten Probewetterkarte vom 7. und 10. September 1863, der ersten Wetterkarte der Deutschen Seewarte vom 16. Februar 1876 und einer modernen Isobarenkarte von 1935. Bedeutung der drahtlosen Telegraphie für die Wettervorhersage; die Polarfronttheorie von V. Bjerknes. Notwendigkeit einer Untersuchung der höheren Luftschichten.

**Eredia F.** - Sulle rapide perturbazioni atmosferiche dell'Adriatico [*De celeribus perturbationibus atmosphaericis maris Hadriatici*]. 35 fig., Boll. Comit. per la Geod. e Geof. del C. N. R. Serie II, A. VI 1/2, 44-73. Milano (1936). **a - 1508**

Osservazioni dell'A. portano alla conclusione che frequenti e rapide comunicazioni fatte dalle zone delle Alpi-Giulie agli Enti interessati in Adriatico possono favorire la previsione del tempo in questo mare.

**Eredia F.** - Considérations relatives aux recherches sur les ondes barométriques [*Considerationes de investigationibus in undas barometricas*]. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V. Ass. Gén., Sept. 1933, Lisbonne, II Mém. & Disc., 112-113. Paris (1935). **a - 1509**

L'A. rappelle l'importance et la nécessité d'intensifier les études des problèmes des oscillations de la pression, dont la solution, selon lui, pourrait donner la clef de nombreuses et importantes questions concernant la prévision du temps à des échéances suffisamment longues.

**Eredia F.** - Aerologia e Meteorologia [*De Aerologia et Meteorologia*]. 327 pp., R. Accad. Aeronaut., Roma (1935). **a - 1510**

Il presente volume rappresenta un libro di testo per gli allievi della R. Accademia Aeronautica. Esso tratta degli strumenti e dei metodi di osservazione, della distribuzione dei fattori aerologici e meteorologici, delle loro variazioni diurne e annuali, della termodinamica dell'atmosfera, della dinamica generale della stessa, e della natura delle differenti perturbazioni atmosferiche, quali le depressioni e i tifoni, e di vari concetti e sistemi applicati alla previsione del tempo. Il lavoro presenta un riassunto molto denso delle nostre conoscenze in materia.

**Fedoulov P. E.** - Expérience de photographie des aurores boréales [*De photographiis aurorae borealis ad experimentum peractis*]. (En russe). Sev. Morsk. Putj II, 120-21. Leningrad (1935). **a - 1511**

**Frank H.** - Einige meteorologische Beobachtungen von der Nordseeküste [*Nonnullae observationes meteorologicae in litoribus Maris Nordici*]. 1 Fig., Ann. d. Hydrogr., LXIII, 7, 268-270. Berlin (1935). **a - 1512**

1. Windverhältnisse hinter Inseln: Beobachtungen anlässlich einer Fahrt entlang der ostfriesischen Küste im Wattenmeer, mit besonderer Berücksichtigung der sogenannten « Düsenwirkung ». 2. Beobachtung einer Rauchwolke, welche zeigt in wie hohem Masse die Form einer Wolke von den allgemeinen Bewegungszuständen der Luft abhängt. 3. Einiges über Luftspiegelungen über Watten und Verzerrung der Kimm und ihre Ursachen.

**Ganzhinov S. J.** - Observations météorologiques faites à bord du brise-glase « Sadko » au cours de l'été 1934 [*Observationes meteorologicae *peractae in navi glacieiruptrici* «Sadko», *aestate 1934*]. (En russe). «Sadko» pod Sov. Flag. («Sadko» sous Band. Sov.), 111-121. Ed. Glav. sevmorputj. Leningrad (1935). **a - 1513**

**Gião A.** - Rapport sur l'état actuel de la prévision du temps [*Relatio de condicionibus hodiernis quoad coeli condiciones providendas*]. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V. Ve Ass. Gén., Sept. 1933 Lisbonne, II Mém. & Disc., 77-91. Paris (1935). **a - 1514**

I. Prévision et extrapolation. II. Prévision par la mécanique. III. Critique de la théorie norvégienne des cyclones. IV. Théorie des perturbations spontanées. V. Théorie des champs. VI. Conclusions. Annexe: Traduction de la réponse à une critique de la théorie de l'A. des perturbations, publiées par M. Solberg dans la «Meteorologische Zeitschrift», 1933, p. 273. Cette réponse contient des explications qui complètent ou justifient certains points du rapport.

**Giere W.** - Die Windverhältnisse an den Ostbaltischen Küsten [*De aërologicis condicionibus ad litora Maris Baltici Orientalis*]. Fig., 9 Taf. a. T. Arb. Naturf. Ver., N. F., XX, 34 S. Riga (1933). **a - 1515**

**Gregg Ray W.** - Progress in International Meteorology [*De progressibus meteorologiae internationalis*]. Monthly Weath. Rev. LXIII, 12, 339-342. Washington D. C. (193 ). **a - 1516**

During the past decade international meteorology has made advances that are without parallel in the previous history of science. Progress has been marked both in theory and in practical application to human activities, particularly to agriculture, engineering, hydrology, and marine and aerial navigation. Chief contributors to this progress are the standardization of methods of international exchange of continental and marine reports, the development of improved technique in upper-air exploration, and of the application of well-established physical laws to forecasting. (From A:s rés.).

**Grobon A.** - Un projet de centre de documentation météorologique international [*De instituendo quodam Centrali Officio documentatione meteorologica internationali perficienda*]. Météorologie, 11, 251-255. Paris (1935). **a - 1517**

**Harrison L. P.** - Analytical Approach to the Methods of Physical Weather-Analysis [*Conspectus analyticus circa methodus analyticas condicionum atmosphaericarum*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 114-117. Washington D. C. (1935). **a - 1518**

Air-mass analysis and dynamical weather analysis. The foundation upon which a system of physical weather-analysis might be constructed. Attempt to indicate some of the leads which may be followed by developing such a system.

**Hartung K.** - Die Wiedergabe periodischer Druckschwankungen auf gemittelten Isallobarenkarten [*Reproductio oscillationum periodicarum pressionis causa in chartis isoallobaricis mediis atque reductis*]. 1 Taf. a. T. Ann. d. Hydrogr., LXIII, 11, 421-429. Berlin (1935). **a - 1519**

Nach einer kurzen Einleitung über verschiedene Auffassungen der Druckverteilung in höheren Atmosphärenschichten und über die Verwendung der Druckänderungskarten im praktischen Wetterdienst in gleichem Masse wie die Isobarenkarten, berichtet Vf. über seine Untersuchungen in welchen er das geschilderte Schema der Darstellung von ausgeglichenen Druckänderungskarten auf einen vorgegebenen periodischen Durchgang in kinematischer Beschreibung anwendet. Durch verschiedene Berechnungen und Formeln wird die Möglichkeit bestätigt, langperiodische (lang vom Standpunkte des täglichen Wetterdienstes aus gesehen) Druckwellen aus dem komplexen Druckgang herausschälen zu können.

**Haurwitz B.** - The Height of Tropical Cyclones and of the «Eye» of the Storm [*De altitudine cyclonum tropicalium oculique, ut dicitur, tempestatis*]. 2 figs., 3 tables. Monthly Weath. Rev., LXIII, 2, Washington D. C. (1935). **a - 1520**

Author claims that the common arguments in favour of a small vertical extension of tropical cyclones are rather weak, and on the other hand, good reasons can be brought forth in favour of the view that tropical cyclones have about the same height as those of middle latitude. In order to confirm this assertion he studies the height of pressure equalization and required lapse rates, the observed lapse rates in typhoons, the warmth and dryness of the «eye» of the Manila typhoon, and the negligible effect of moisture and vertical accelerations on pressure distribution.

**Haurwitz B.** - A Theoretical Study of Wind-Direction in Curved Air-Currents (Abstract) [*Studium theoricum velocitatis et directionis ventorum in currentias aërias curvas*]. 1 fig. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 124-126. Washington D. C. (1935). **a - 1521**

Author studies the wind-velocity and wind-direction in the instances, when the simple assumption of straight-rain flow of the air does not hold, i. e. he takes into consideration the curvature of the isobars in the inner part of cyclones and especially in tropical cyclones. He gives formulae which permit to measure the variation of wind and the transport of air-mass across the circular isobar of cyclones.

**Haurwitz B.** - On the Structure of Tropical Cyclones [*De structura cyclonum tropicalium*]. Quart. Journ. R. Meteorol. Soc., LXII, 263, 145-146. London (1936). **a - 1522**

A. gives a derivation of the formula he has communicated elsewhere («Monthly Weath. Rev.», LXIII, 45-49, 1935, Washington) expressing the height of the boundary between the two air masses of the central part of a tropical cyclone by means of the hydrostatic equation. The same formula is also derived in a different manner by means of the expression for the inclination of a surface of discontinuity.

**Hazeltine K. S. & Others** - Weather [*Coeli condiciones*]. Ills, maps, charts. 34 pp. Science Guide Element. Schools, I, 5. Washington (1935). **a - 1523**

**Hennessy J.** - Weather in the North Atlantic, February 25-27th, 1935 [*Condiciones meteorologicae in Atlantico Nordico a die 25 ad diem 27 Februarii 1935*]. 3 charts. Mar. Obs. XIII, 121, 21-22. H. M. Stat. Off. London (1936). **a - 1524**

Account of the gales in the North Atlantic which caused the foundering of three British ships.

**Hobbs W. H.** - The Glacial Anticyclones [*De anticyclonibus glacialibus*]. 6 figs. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V. Ve Ass. Gén. Sept. 1933, Lisbonne, II Mém. & Disc., 231-239. Paris (1935). **a - 1525**

Account of the exploration of the Antarctic and Greenland anticyclones which lie in an area within each polar region, characterized by a fixed high pressure circulation excentrically placed with reference to the geographic poles,

and whose centers may be considered the wind poles of the earth. The paper is completed by 5 graphs prepared by Sir Napier Shaw and which display strikingly the prevailing wind directions at different levels observed at the University of Michigan Meteorological Station at Mount Evans in Southwest Greenland.

**Hoeller E.** - Klimatographische Witterungsschilderung. Nr. 61: Seeverkehrsweg: Grenzgebiet der Golfstrom- und Neufundland- Region des Atlantischen Ozeans [*Descriptio climatographica condicionum meteorologicarum*]. Ann. d. Hydrogr., LXIV, 4, 178-179. Berlin (1936). **a - 1526**

Verlauf eines Novembertages vor der Küste der nordöstlichen Union-Staaten. Beobachtungstag: 28. November 1934.

**Horiguti Y.** - Energy Due to the Distribution of Pressure in the Area of typhoon [*De energia deprompta a pressionis distributione in area venti typhonis*]. Mem. Imp. Mar. Observ. V, 1, 1-9. Kobe (1932). **a - 1527**

**Horiguti Y.** - Note on the Distribution and the Motion of the Clouds in the Area of Typhoon [*Nota de distributione et motu nubium in area venti typhonis*] 1. pl. Mem. Imp. Mar. Observ. V, 1, 25-40 Kobe (1932). **a - 1528**

**Hunter H. C.** - Weather of the Atlantic and Pacific Oceans 1935 and 1936 [*Coeli condiciones in Oceano Atlantico et Oceano Pacifico*]. Tables. Monthly Weath. Rev., LXIII, LXIV. Washington D. C. (1935-36). **a - 1529**

Averages, departures and extremes of atmospheric pressure at selected stations, cyclones and gales, fog on the North Atlantic, for every month in all the numbers of vols. LXIII and LXIV.

**Hurd W. E.** - Weather on the Atlantic and Pacific Oceans. 1935 and 1936 [*Coeli condiciones in Oceano Pacifico Sept. Mense Februario 1935*]. Tables. Monthly Weath. Rev., LXIII, LXIV. Washington D. C. (1935–36). **a - 1530**

**Jameson H.** - Report on the Colombo Observatory with Maps and Statistics (foll. by The Ceylon Blue Book) for 1934 [*Relatio observatorii in* Colombo *cum chartis et tabulis statisticis, A. 1934*]. 2 tables, 8 pls. 1-35, Y1-Y19. Govmt. Press, Colombo (1935). **a - 1531**

Administration. Time. Meteorological. Changes in the Annual Report. Other publications. Seismograph. Weather summary. Rainfall tables. Tables of statistics as published in the Ceylon Blue Book. Maps and diagrams.

**Jeffreys H.** - The Function of Cyclones in the General Circulation [*De functione cyclonum quoad circulationem generalem*]. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V. V-e Ass. Gén., Sept. 1933, Lisbonne, II Mém. & Disc., 219-230. Paris (1935). **a - 1532**

Author points out that the customary attitude of meteorologists to cyclones seems to be to regard them as disturbances superposed in some way upon a general circulation of the atmosphere. He brings instead an alternative view, namely that cyclones are an essential part of the general circulation, which could not exist without them, and proves three propositions, one relating to the variation of the geostrophic wind with height, one to the existence of steady motion in the absence of friction, and one to the conservation of angular momentum for the air north of any given parallel of latitude. Account of the following discussion.

**Johansson O. V.** - Die Temperaturverhältnisse Spitzbergens (Svalbard) [*De temperaturae condicionibus in* Spitzberg (Svalbard)]. 1 Taf., 13 Tab., Ann. d. Hydrogr, LXIV, 3, 81-96. Berlin (1936). **a - 1533**

Der tägliche Gang im Winter. Verschiedene Temperaturdaten. Der jährliche Gang. Der Verlauf im Winter. Die säkulare Schwankung. Die Synthese der Schwankung. Vergleichungen. Allgemeine Bemerkungen über die Sonnenfleckenperiode und die Zirkulation.

**Kawasaki H.** - On the Typhoons and Cyclones Originated Around the South Sea Islands in 1933 [*De typhonibus atque cyclonibus qui formantur circa insulas Maris merid. Japonici*]. (In Jap.). 2 pls. Suiro Yôhô (Hydrogr. Bull). XIII, 309-312. Tokyo (1934). **a - 1534**

Tracks of 19 typhoons and cyclones originated around the South Sea Islands under Japanese mandate (Mariana, Caroline, and Marshall Is.) and occurring 5 in July, 4 in October, and 0 to 2 in other months of the year.

**Keyser H.** - Opstellen op Oceanographisch en Maritiem Meteorologisch Gebied. No. 5: Over de fouten bij en kwikbarometer met vernauwde buis, indien de luchtdrukking verandering ondergaat [*Problemata oceanographica, maritima et meteorologica*]. Kon. Ned. Meteor. Inst. No. 111. De Bilt (1935). **a - 1535**

**Kidson E.** - The Analysis of Weather Charts [*De analysi chartarum pro coeli condicionibus*]. Ills., 14 pp. Austral. Géogr. Sydney (1935). **a - 1536**

**Kimball H. H.** - Determinations of Atmospheric Turbidity and Water Vapor Content [*Determinationes turbiditatis atmosphaericae et vaporis aquae*]. 5 figs., 4 tables. Monthly Weath. Rev., LXIV, 1, 1–5. Washington D. C. (1936). **a - 1537**

After a brief introduction concerning the decision taken by a meeting of the Commission on Solar Radiation of the Section of Meteorology, International Geodetic and Geophysical Union, in Potsdam and Berlin, to recommend the national branches of the Union to cooperate in a world-wide study of the dustiness or turbidity of the atmosphere, and also of the water content, author gives a brief account of measurements made in order to obtain values of the turbidity coefficient, $\beta$, and of the vapor content, $w$, of the atmosphere, carried out at Blue Hill Meteorological Observatory.

**Kleinschmidt E.** Hrsg., bearbeitet von **Albrecht F., Duckert P., Grundmann W., Grunov J., Jensen Chr., Kähler K., Kleinschmidt E., Kopp W., Kühl. W., Reger J. Robitzsch, Süring R.** - Handbuch der meteorologischen Instrumente und ihrer Auswertung [*Liber instrumentorum meteorologicorum eorumque applicationum*]. 463 Abb., XV + 733 *S*. Verl. Julius Springer. Berlin (1935).

(—) V. Recensione di M. Tenani in Boll. Com. Geod. & Geof. Cons. Naz. Ric. V. Ser. II, 4, 252-253. Milano (1935). **a - 1538**

Temperaturmessgeräte (W. Grundmann). Messgeräte der Sonnen und Himmelsstrahlung (W. Kühl, F. Albrecht). Die Messung der Luftfeuchtigkeit und der Verdunstung (M. Robitzsch, W. Grundmann). Messung der Kondensationskerne und der Kondensationsprodukte (K. Kähler, F. Albrecht, E. Kleinschmidt). Luftdruckmessung (E. Kleinschmidt). Die Windmessung am Boden (J. Grunow). Aerologische Messmethoden (E. Kleinschmidt, M. Robitzsch, J. Reger, W. Kopp, P. Duckert, R. Süring). Luftelektrizität (K. Kähler). Messgeräte der atmosphärischen Optik und Akustik (Chr. Jensen, K. Kähler, W. Kühl).

**Köppen W.** - Westindische Orkane im Herbst 1935. [*Tempestates in Indiis occidentalibus, autumno 1935*]. 2 Abb., Ann. d. Hydrogr. XLIV, 6, 253-256. Berlin (1936). **a - 1539**

Die ersten drei Wirbelzentren folgten den gewöhnlichen Bahnen; die beiden ersten Orkanen erreichten im August und Anfang September den westlichsten Punkt bei 27° bis 30° N, der dritte wanderte vom 25. bis zum 28. September von 15° bis 25°, der vierte dagegen machte eine ganz unregelmässige, kaum je beobachtete, Bahn vom 19. bis zum 22. Oktober im Karibischen Meere und die Bahn des fünften in etwa 32° N-Br. östlich von den Bermuden entstandenen Sturmwirbels ist sogar ohne Beispiel in der Geschichte der Orkane. Für weitere Beschreibung und Erklärung siehe den Washingtoner M. W. Review Aug. bis Nov. 1935.

**Koschmieder H.** - Danziger Seewindstudien. I. Nachweis und Beschreibung sowie Beiträge zur Kinematik und Dynamik des Seewindes [*De vento marino Dantisci. I. Descriptio et contributiones in cinematicam et dynamicam venti marini*]. Forsch. arb. Meteorol. Inst. Danzig Kaiser Wilhelm Ges. 8. Leipzig (1936). **a - 1540**

Diese Arbeit enthält die aus dem Jahre 1932 bearbeiteten Registrierungen von drei Stationen des nunmehr aufgehörten Meteorologischen Institutes Danzig der Kaiser Wilhelm-Gesellschaft. Einleitende Beschreibung von zwölf Einzelfällen des Jahres 1932 mit Berechnung der Fortpflanzungsgeschwindigkeit der Seewindfront. Dynamik des Seewindes.

**Kuhlbrodt E.** - Schleuderthermometer für Bordgebrauch [*De thermometris, centrifugationis auxilio, pro navigatione*]. 1 Abb., Ann. d. Hydrogr. LXIV, 2, 57–60. Berlin (1936). **a - 1541**

Beschreibung eines nach den Angaben des Vf:s von der Firma Carl Seemann Nachflg. in Hamburg hergestellten Schleuderthermometers und praktische Anweisungen für seinen Gebrauch.

**Kuhlbrodt E.** - Kritik der Lufttemperatur-Bestimmung auf See; Grösse der Temperaturdifferenz Luft-Wasser auf dem Atlantischen Ozean [*De aëris marinae temperaturae determinatione eiusque critica. De magnitudine quoad differentiam temperaturae inter aërem et aquam in Oceano Atlantico*]. 2 Abb., 5 Tab. Ann. d. Hydrogr. XLIV, 6, 259-264. Hamburg (1936). **a - 1542**

Als Unterlage der hier durchgeführten Untersuchungen dienten die während der Deutschen Atlantischen Meteor-Expedition 1925/27 gemachten Messungen. Es zeigt sich heraus, dass für die niederen Breiten des Atlantischen Ozeans die bisher berechneten Mittelwerte der Lufttemperatur als im Durchschnitt um etwa 3/4° zu hoch anzusehen und dementsprechend die bisherigen Werte der Temperaturdifferenz Luft-Wasser zu ändern sind.

**Kuhlbrodt E.** - Zur Registrierung des Windes auf Schiffen. (Frage der Störungseinflüsse und der Windzunahme mit der Höhe nach Erfahrungen auf der Meteor-Expedition 1925-27) [*Ventorum registratio in navibus*]. 4 Tab., 4 Abb., Ann. d. Hydrogr. LXIV, 8, 253-360. Berlin (1936). **a - 1543**

An Hand gleichzeitiger Registrierungen an drei verschiedenen Stellen auf dem « Meteor » wird die Grössenordnung der Fehlerfaktoren festgestellt. Als bester Aufstellungsort des Anemometers an Bord ergibt sich der am Mast, möglichst hoch und frei. (Vf.)

**Laktionow A. F.** - Meteorologische Beobachtungen der Expedition auf dem Dampfer « Lomonossow » in Jahre 1931 [*Observationes meteorologicae peractae perdurante expeditione navis vaporalis* « Lomonossov » *1931*]. (In Russ., Dtsch., Titel). Taf. Scient. Res. Arct. Exp. « Lomonossow », 1931, Trans. Arct. Inst., XVIII, 93-104. Leningrad (1935). **a - 1544**

Tagebuch in Tabellenform.

**Lange K. O.** - The Radio-Meteorograph Project of Blue Hill Observatory, Harvard University - A Preliminary Report [*Ratio radiometeorographici apparatus construendi quo utitur* Blue Hill Observatory, Harvard University. *Relatio prior*]. 1 fig. Nat. Res. Counc., Amer. Geoph. Union, Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 144-147. Washington D. C. (1935). **a - 1545**

After an outline of the outstanding disadvantages of the ascensions by airplane, the sounding and pilot-balloons in the study of the meteorological conditions of the upper air, author gives a description of the mechanical part of the radio-meteorograph, that is, the thermo-baro-hydrograph designed for the Blue Hill Observatory, whose radio part has been dealt with in another paper by A. E. Bent. (See Trans. 16th Ann. Meet. Amer. Geoph. Union, I, 141-144, 1935).

**Leighly J. B.** - North Pacific Meteorology from the Modern Viewpoint [*De meteorologia Oceani Pacifici Sept. e rationibus modernis*]. Geogr. Rev,. XXV, 3, 493-494. New York (1935). **a - 1546**

Brief summary of modern studies of North Pacific meteorology with special regard to the air-mass properties and the use of synoptic material from over the Pacific ocean, described by H. R. Byers in his new paper « The Air Masses of the North Pacific » published in « Bull. Scripps Instit. Oceanogr. », III, 4, 311-353, 1934.

**Leighly J. B.** - Graphic Studies in Climatology. 3. A. Graphic Interpolation Device for Dating the Extremes of the Annual Temperature Cycle [*Studia graphica climatologica. 3. Apparatus interpolatione graphica praeditus ad extremos determinandos cycli annui temperaturae*]. Figs., fold. charts. Univ. Calif. Publ. Geogr., VI, 5, 173-189. Berkeley, Ca. (1934). **a - 1547**

**Lehmann H.** - Austausch von Wetternachrichten auf dem Nord-atlantischen Ozean [*Permutatio relationum meteorologicarum in Oceano Atlantico Sept.*]. Seewart, V, 6, 177-179. Hamburg (1936). **a - 1548**

Zwei Beispiele von den im westlichen Teile des Atlantiks ungewöhnlich schnellen Witterungsänderungen, welche die Bedeutung eines noch öfteren Austausches der Wetterberichte von Schiff zu Schiff zeigen.

**Loewe F.** - Pressure Waves in Adelie Land [*De pressionis undis in* Adelie Land]. 2 fig. Quart. Journ. R. Meteorol. Soc., LVI, 262, 441-445. London (1935). **a - 1549**

Comparison of simultaneous pressure observations at McMurdo Sound, Adelie Land and Macquarie Island shows pressure waves radiating outward from the Antarctic continent. These waves, which seem to travel with considerable speed, can be traced distinctly as far as Macquarie Island, north of the sub-Antarctic low pressure belt.

**Lori F.** - La radiometeorologia [*De radiometeorologia*]. Ibérica, XLIII, 1075, 364-368. Barcelona (1935). **a - 1550**

Aplicaciones del estudio, para la averiguácion de la constitución de la atmósfera y de su dinamismo, que constituyen la Radiometeorologia.

**Lueders K.** - Beobachtungen bei einem Wirbelsturm im Gebiet der Aussenjade [*Observationes quoad columnam marinam in regione* Aussenjade]. 1 Taf. a. T. Ann. d. Hydrogr., LXIV, 4, 160-162. Berlin (1936).. **a - 1551**

Beobachtungen über die meteorologischen Verhältnisse, das Auftreten, die Bahn, die Störung der Gezeitenströmung und -bewegung während des am 4. August 1930 über Minsener Oldeooge, eine östlich von Wangerooge gelegene Strandinsel, stattgefundenen Wirbelsturmes.

**Lyr E. S.** - Types of the Season Circulations of the Atmosphere over Eurasia and Atlantic [*De typis circulationis pro anni tempore in atmosphaera Eurasiae et Oceani Atlantici*]. Meteorol. i. Hidrol. 1. Moskwa (1936). **a - 1552**

**Manegold W.** - Die Wetterabhängigkeit der Oberflächenströmungen in den Pforten der Ostsee [*Momentum coeli condicionum providendarum pro currentiis superficialibus ad accessus Maris Baltici*]. 11 Kart., 2 Taf. a. T. Aus d. Arch. Dtsch. Seew., LIV, 4, 1-40. Hamburg (193 ). **a - 1553**

Aus den vorliegenden Untersuchungen, wieviel man bei richtiger Betrachtung einer Wetterkarte über die Stromverhältnisse aussagen kann, zieht Vf. folgende Schlüsse: Für die Hauptrichtung des Oberflächenstroms ist in erster Linie das Wetter verantwortlich. Einstrom wird, mit einigen Ausnahmen, durch ein Tief auf einer der Zugstrassen hervorgerufen, sobald es die Linie Island- skandinavische Westküste - Jütland überschritten hat. Starker Ausstrom läuft bei einem Hoch über Nordosteuropa. Weitere Regeln für die Voraussage des Stromverlaufs sind am Ende dieser Arbeit enthalten.

**Manley G.** - Some Notes on the Climate of North-East England [*Notae de climate in regionibus nord-orientalibus Angliae*]. 3 tabl. Quart. Journ. R. Meteorol. Soc. LXI, 262, 405-410. London (1935). **a - 1554**

Characteristical features of the climate of the northeastern lowlands of England and the coasts of south-east Scotland. Comparison between the western and eastern coasts with regard to sunshine, cloudiness, winds etc.; temperature of the surrounding waters, factors concerned with the cooling of the waters. Presumed correlation between the depth of inversion at the coast and the persistence of low cloud inland. Example: North-easterly Weather analysis for May 1935.

**Mariolopoulos E. G.** - Rapport sur l'activité météorologique en Grèce (1930-1933) [*Relatio de activitate meteorologica graeca*]. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr. –V. V$^e$ Ass. Gén., Sept., 1930, Lisbonne, II Mém. & Disc., 305-307. Paris (1935). **a - 1555**

Rapport sur les travaux exécutés par l'Observatoire National d'Athènes et l'Institut Météorologique et Climatologique de l'Université de Salonique, suivi d'une liste des publications de ces deux institutions.

**Mariolopoulos E. G. & Livathinos A. N.** - Atlas climatique de la Grèce [*Graeciae Atlas climaticus*]. Cartes, tabl., planches. Observ. Nat., Athènes (1935). **a - 1556**

Représentation détaillée de la distribution des différents éléments météorologiques sur la partie continentale et les îles de la Grèce. Donnéés de 34 stations météorologiques de deuxième ordre, de 11 de troisième ordre, et de 36 stations pluviométriques, qui sont contrôlées par les observations horaires faites à l'Observatoire National d'Athènes. La période adoptée comme standard pour l'obtention des moyennes est celle de 1900–1929. Les coordonnées de toutes les stations sont indiquées dans l'introduction ainsi que sur une carte en relief.

**Martin R. J.** - Climatological Tables. Description of Tables and Charts [*Tabulae climatologicae. Descriptio tabularum et chartarum*]. 3 tables, 10 charts o. t. (1936). **a - 1557**

Description of the tables elaborated by the Weather Bureau and the Canadian Meteorological Service, and of the charts (1) of temperature departures, (2) tracks of centers of anticyclones, and (3) cyclones, (4) the percentage of clear sky between sunrise and sunset, (5) total precipitation, (6) isobars at sea level, and isotherms at surface, prevailing winds, (7) wind roses of selected stations, (8) total snowfall, (9-10) North Atlantic weather maps for particular days.

**McDonald W. F.** - Weather of the Atlantic and Pacific Oceans. North Pacific Ocean, May 1935 [*Coeli condiciones Oceani Atlantici et Oceani Pacifici, mense Majo 1935*]. 1 tabl. Monthly Weath. Rev. LXIII, 5, 174. Washington D. C. (1935). **a - 1558**

Atmospheric pressure. Cyclones and gales. Fog.

**MacDonald W. F.** - The Hurricane of August 31 to September 6, 1935 [*De vento orcano a die 31 Augusti ad diem 6 Septembris 1935*]. Monthly Weath. Rev. LXIII, 9, 269-271. Washington D. C. (1935).

(—) West Indian Hurricane, September 23 to October 2, 1935. Monthly Weath. Rev., LXIII, 9, 271-272. New York.

(—) The Caribbean Hurricane of October 19-26, 1935. 4 Charts. Monthly Weath. Rev., LXIII, 10, 294-295. Washington D. C.

(—) Lowest Barometer Reading in the Florida Key Storm of September 2, 1935. Monthly Weath. Rev., LXIII, 10, 295. Washington D. C. **a - 1559**

**McEven G. F .** The Water Cycle between the Ocean, Atmosphere, and Land. [*De aquae cyclo inter oceanum, atmosphaeram et terram*]. U. S. Nav. Inst. Proc., LXII, 7, 956-959. Annapolis, Md (1936). **a - 1560**

Occurrence and distribution of water. Barometric pressure, winds, and precipitation. Run-off. Evaporation. Conclusion.

**Mengel O.** - Du rôle des dépressions atmosphériques dans la formation des rivages lagunaires de la Méditerranée Occidentale [*De depressionibus atmosphaericis earumque momento quoad riparum lacunarium formationes in Mediterraneo occidentali*]. 2 fig., 1 carte. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.–V$^e$ Ass. Gén., Sept. 1933, Lisbonne, II Mém. & Disc., 291-300. Paris (1935). **a - 1561**

Description du littoral nord-occidental de la Méditerranée, dont l'aspect lagunaire est un peu spécial. Les quatre sections, dans lesquelles on peut le diviser. Les deux centres cycloniques sous l'influence desquels se trouve le Golfe du Lion. Influence des courants marins dans ce golfe. Action prépondérante de la houle. Le clapotis. Formation des étangs littoraux. Rôle secondaire du centre dépressionnaire du golfe de Gênes. Résumé des transformations subies au cours des temps par le littoral considéré.

**Mildner P. & Markgraf H.** - Meteorologischer Reisebericht und Höhenwind-messungen auf der Fahrt nach Kamerun Mai bis Juni 1933 im Rahmen des Zweiten Internationalen Polarjahres 1932-33 [*Relatio meteorologica mensuraeque vento-*

*rum peractae navigatione perdurante ad* Kamerun, *anno internationali polorum 1932-33*]. 7 Taf. a. T. Aus d. Arch. Dtsch. Seew. LIV, 3, 1-49. Hamburg (1935). **a - 1562**

Plan und Verlauf der Reise. Meteorologischer Reisebericht. Die Ergebnisse der Höhenwindmessungen. Meteorologisches Tagebuch. Tabellarische Zusammenstellung der Höhenwindmessungen. Verzeichnis der Wolkenbilder.

**Mirotvortzev K. N.** - Le climat de la région de la Sibérie Orientale [*De climate Siberiae orientalis*]. (En russe). 5 cartes, 18 app. 205 pp., Irkoutsk-Moskva (1934). **a - 1563**

**Moltchanov P.** - Recherches aérologiques sur les stations polaires au cours de l'hivernage de l'année 1933-34 [*Investigationes aërologicae in stationes polares hieme 1933-34*]. Bull. Arct. Inst,. V, 3/4, 88-89. Leningrad (1935). **a - 1564**

Bref compte rendu des mensurations aérologiques exécutées à l'aide de ballons-sondes dans l'Arctique russe, avec référence spéciale à la distribution de la température en fonction de l'altitude.

**Moltchanov P.** - L'automatisme dans le Service Météorologique [*De servitio meteorologico eiusque automatica ratione agendi*]. (En russe). Nauka i Tekhn. 2, 3. Leningrad (1935). **a - 1565**

**Moorhead H. B. F.** - Remarks on Upper Air Results Obtained During the Approach of a Hurricane to Bermuda, August 20-23, 1935 [*De observatis stratis atmosphaericis superioribus, orcano vento imminente, in insulis* Bermuda *a die 20 ad diem 23 Augusti 1935*]. 1 fig., 1 diagr. Quart. Journ. R. Meteorol. Soc., LXII, 263, 123-124. London (1936). **a - 1566**

On hand of the illustrated observations and the results of pilot balloons ascents and observations on cirrus clouds, the track of the hurricane is described.

**Mosby H.** Verdunstung und Strahlung auf dem Meere [*Evaporatio marina atque radiatio*]. 1 Abb., 1 Tab. Ann. d. Hydrogr. LXIV, 7, 281-286. Berlin (1936). **a - 1567**

Die Arbeit ist ein Versuch, unserer Kenntnis der mittleren Verdunstung auf den Meeren bezüglich der Einstrahlung eine festere Grundlage zu schaffen. Eine grosse Unsicherheit der Bestimmung der Einstrahlung geht aus den abweichenden Annahmen der verschiedenen Autoren deutlich hervor. Mit Hilfe von Beobachtungstatsachen ist eine vorläufige Grundlage einer empirischen Strahlungsformel gewonnen, welche sich auch für andere thermische Probleme der Luft und des Meeres als praktisch und bequem erweisen mag. (Vf.)

**Mountford Deeley R.** - A Manual of the Principles of Meteorology [*Fundamenta meteorologica*]. 4 pls. xi + 285 pp. Charles Griffin and Co. Ltd. London (1935). **a - 1568**

New theories in opposition to the present science of meteorology especially concerning the distribution of temperature in the troposphere and its influence on the pressure on the earth's surface as well as sun radiation causing a high-level heating.

**Mügge R.** - Wetterkunde und Wettervorhersage [*De meteorologia pro coeli condicionibus providendis*]. 235 S., 86 Abb., 16 Taf. Die Welt im Fortschritt, 1. Reihe, VI. Verl. F. A. Herbig. Berlin (1936). **a - 1569**

Allgemeinverständliche Darstellung des neuesten Standes der Meteorologie gemäss den Theorien der « Frankfurter Schule ».

**Müller H.** - Eine Studie über die Struktur des sommerlichen Temperaturganges [*Studium temperaturae aestivae eiusque rationis*]. Ann. d. Hydrogr. LXIII, 12, 466-477. Berlin (1935). **a - 1570**

Auf Grund der bei der Station Annen seit 1908 gemachten Berechnungen über die Sonnenscheindauer werden hier die Beziehungen zwischen den verschiedenen Elementen: Sonnenscheindauer gegenüber ihrer Streuung, Streuung von Sonnenschein und Höhe der Temperatur, Streuung von Temperatur gegenüber Sonnenschein untersucht. Es wird weiter versucht die Aufgabe zu lösen, ob die oben berechneten Beziehungen zwischen zwei Elementen unmittelbar sind oder ob sie mit einem dritten zusammenhängen.

**Namekawa T.** - A Study of the Minor Fluctuation of the Atmospheric Pressure (1) Part I. Theory of the Internal Gravitational Waves of the Atmosphere and its Application to the Waves of Pressure Recorded by the Microbarograph. [*De fluctuationibus pressionis atmosphaericae. Pars Iª. Theoria undarum gravitationalium internarum eiusque applicatio ad studendas undas prementes, microbarographo registratas*]. 12 figs., 6 tables. Mem. Coll. Sc., A, XVII, 405-430. Kyoto (1934). **a - 1571**

The author uses the simplifications and the graphical method to the Lamby's theory of the atmospheric oscillations to get some useful conclusions concerning the analysis of waves of pressure, shown by the microbarographs. This theory, which gives a combination of the Helmholtz's internal waves theory and D. Brunt's simple vertical oscillation due to the stabilizing effect, is examined and verified on hand of two actual examples and is found to agree with the observational results.

**Namekawa T.** - A Study of the Minor Fluctuation of the Atmospheric Pressure, (II), (III) Part II. Analysis of the Microbarograms [*De secundariis fluctuationibus pressionis atmosphaericae. Part II. Microbarogrammatum analysis*]. 96 figs., 14 tables. Mem. Coll. Sc., A, XVIII, 83-127, 173-200. Kyoto (1935). **a - 1572**

This paper contains a classification and an examination of records obtained by Prof. T. Shida's microbarograph during about 15 years (1919-1934) at Kyoto. Its contents are as follows: Section I: Periodic fluctuation of atmospheric pressure. II: On the type of microbarographic depression. III: Rapid rise of the barometric pressure. IV: On the disturbance type of the microbarograms. V: Some interesting miscellaneous examples of the microbarograms.

**Namias J. & others** - An Introduction to the Study of Air Mass Analysis [*Introductio in studendam analysim massarum aëriarum*]. Diagrs. Repr. Amer. Meteorol. Soc., Bull. 1934-35. Milton, Mass (1934–35). **a - 1573**

**Navarro Neumann M. M-a. S.** - Ciclones y otros fenòmenos meteorològicos màs importantes del primer semestre de 1934 [*Cyclones aliaque phaenomena meteorologica magni momenti, primo semestre 1934*]. Iberica, XLIV, 1095, 298-304. Barcelona (1935). **a - 1574**

Notas, in base a los recortes de periódicos, acerca de los cyclones y otros fenómenos meteorológicos in Europa (España, Alemania, Bélgica, Francia, Inglaterra, Portugál y Rumania), Asia (China, Japón, Palestina, Turquia Asiática), Africa (Isla de la Reunión, Madagascar), América del Norte, Centro América, América del S. (Argentina, Chile), Oceania.

**Okada T. & Yamada T.** - On the Forecast of North-East Monsoon in Formosa [*De providendo vento* Monsone Nord-est *in insula* Formosa]. 4 figs. Geophys. Mag., VIII, 3, 4, 295-305. Tokyo (1935). **a - 1575**

**Sverdrup H. U.** - Scientific Results of the Norwegian-Swedish Spitsbergen Expedition in 1934. Part IV: The Ablation on Isachsen's Plateau and on the Fourteenth of July Glacier in Relation to Radiation and Meteorological Conditions [*Resultatus scientifici ex expeditione a Suetiis et Norvegis peracta ad* Spitsbergen, *A. 1934. Pars IIª. De ablatione in Platea nomine* Isachsen *et in glaciario nomine* Fourteenth of July *pro radiatione et condicionibus meteorologicis*]. 2 pls., 7 figs. Geogr. Ann. XVII, 3/4, 145-218. Stockholm (1935). **a - 1576**

**Peppler W.** - Die Drachen- und Fesselballon-Aufstiege. Die Beobachtungen der Marine-Drachenstationen Breedene-Meer und St. Michel bei Brügge in den Jahren 1915-1918 [*De observatis sphaericis a stationibus maritimis* Breedene-Meer *et* St. Michel *apud* Brügge, *A. 1915-1918*]. Tab., 6/S. Aus. d. Arch. Dtsch. Seew., LVI, 2. Hamburg (1936). **a - 1577**

Diese Arbeit bildet die Fortsetzung der in Band XLVII während 1920-1925 erschienenen vier Abhandlungen « Aerologische und Hydrographische Beobachtungen der deutschen Marine-Stationen während der Kriegszeit 1914-1918 ». Tabellenangaben über Zeit, Seehöhe, Luftdruck, Temperatur, relative Feuchtigkeit und Wind.

**Perlewitz P.** - Der Wind nach Beaufortstärke und Geschwindigkeit [*Ventus secundum schalam* Beaufort *eiusque velocitas*]. Hansa, 12. Hamburg (1935). **a - 1578**

**Petersen H.** - Klima des Kanadischen Archipels und Grönlands. II. Klima der Küsten von Grönland [*De climate archipelagi Canadensis et groenlandici. II. Clima litorum groenlandicorum*]. Abb., Tab. Handb. Klimatol. II, Teil K, K 31-K 66. Berlin (1935). **a - 1579**

**Petterssen S.** - Practical Rules for Prognosticating the Movement and the Development of Pressure Centers [*Regulae practicae ed studendam prognosim centrorum pressionis quoad motum, quoad progressum*]. 11 figs., 2 tables. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V., V-e Ass. Gén., Sept. 1933, Lisbonne, II, Mém. & Disc., 35-66. Paris (1935). **a - 1580**

Treatise on the practical application of the formulae by means of which the future movement and change in structure of all kinds of pressure systems may be computed. (Kinematical and Dynamical Properties of the Field of Pressure, with Application to Weather Forecasting, abbreviated: K. & D. P.). Author deduces forecasting rules which may be applied when technical difficulties do not permit computation of future change in pression distribution. These rules are based on the theoretical deductions in K. & D. P. and are limited to the discussion of the paths of pressure centers, and their change in structure (deepening, filling, occlusion, cyclogenesis and anticyclogenesis). Summary of the following discussion.

**Petterssen S.** - Contribution to the Theory of Frontogenesis [*Contributio in frontogenesim*]. 54 figs. Geofys. Publ. XI, 6, 1-27. Oslo (1936). **a - 1581**

I. General theory. II. Frontogenesis in linear fields of motion. III. Frontogenesis in linear fields of property. IV. Frontogenesis between source regions.

**Phifer D. & Utterback C. L.** - Some Meteorological Observations [*Nonnullae observationes meteorologicae*]. 1 fig. Journ. Cons. Expl. Mer, X, 3, 315-317. Copenhague (1935). **a - 1582**

The table and graphs given by the A. show the results of air temperature, surface temperature of sea water, total solar radiation and elapsed time between sunrise and sunset at the field laboratory (Oceanographic laboratory, University of Washington, Seattle) in Friday Harbor for the year 1934.

**Piersig W.** - Die Gewitterhäufigkeit im Meeresgebiet vor der nordwestafrikanischen Küste: ihr jahreszeitlicher Gang und ihre Verteilung zur Lage der Tropikfront [*Tempestatum frequentia in regione maritima Africae nordoccidentalis. Ratio tempestatum pro anni tempore earumque distributio pro positione frontis tropicalis*]. 1 Taf., 5 Tab. Ann. d. Hydrol., LXIII, 12, 461-466. Berlin (1935). **a - 1583**

Die hier gewonnenen Ergebnisse, die sich auf die an Bord der deutschen Handelsschiffe während 1909-1913 zwischen 30° W und 25° und 5° N. ausgeführten Beobachtungen stützen, bestätigen die Ergebnisse früherer Untersuchungen auch in Bezug auf ein grösseres Gebiet. Der jährliche Gang der Gewitterhäufigkeit. Die Windrichtung am Boden während der Gewittererscheinungen. Die Verteilung der Gewittererscheinungen relativ zur Tropikfront.

**Piersig W.** - Schwankungen von Luftdruck und Luftbewegung sowie ein Beitrag zum Wettergeschehen im Passatgebiet des östlichen Nordatlantischen Ozeans [*Oscillationes perpenduntur pressionis aëriae atque motus. Contributio in coeli condiciones studendas in sectore Etesiarum in parte orientali Atlantici septentr.*]. 20 Abb., 4 Taf. a. T. Aus d. Arch. Dtsch. Seew., LIV, 6, 1-41. Hamburg (1936). **a - 1584**

Die vorliegende Bearbeitung hat zum Zweck, die Bedeutung der Schiffsbeobachtungen für das Studium klimatologischer und meteorologischer Erscheinungen zu untersuchen und zu sehen, wie weit die unperiodischen Schwankungen einzelner meteorologischer Faktoren in der Passatzone dazu berechtigen, von einem Wettergeschehen in diesem Gebiet zu sprechen.

**Poser H.** - Nebelbögen, kleiner Sonnenhalo und Luftspiegelungen im ostgrönländischen Packeise [*Fornices nebulosi, parvus halo solaris et fata morgana in glacie Groenlandiae orientalis*]. 1 Fig., 9 Tab. Ann. d. Hydrogr., LXIII, 7, 261-267. Berlin (1935). **a - 1585**

Wiedergabe einiger Beobachtungen von Luftspiegelungen und der gleichzeitigen Temperaturen aus dem ostgrönländischen Packeise. Den Luftspiegelungen stellt Vf. einige Beobachtungen über einen kleinen Sonnenhalo und den echten weissen Regenbogen voran. In seinen Schlussfolgerungen bespricht Vf. die engen Beziehungen zwischen Luftspiegelungen und kräftiger Temperaturinversion; letztere führt er auf die anhaltend abkühlende Wirkung des Eises auf die untere Luftschicht zurück.

**Regula H.** - Druckschwankungen und Tornados an der Westküste von Afrika [*De pressionis oscillationibus deque ventis* tornados *ad litora Africae occid.*]. 1 Taf. Ann. d. Hydrogr., LXIV, 3, 107-111. Berlin (1936). **a - 1586**

In der Zeit zwischen Juli und Oktober 1934 fanden an der Küste von Senegambien und der Sierra Leone mehrfach Druckschwankungen von etwa viertägiger Dauer statt. Während des Druckfalls wehten auflandige (westliche), während des folgenden Druckanstiegs ablandige (östliche) Winde, letztere in einem Falle in einer Breite von 2000 km. Soweit die Meldungen erkennen lassen, treten die westafri-

kanischen Tornados vorzugsweise während der Zeiten des Druckanstiegs auf. Ueber See nimmt die Gewittertätigkeit rasch ab, die östlichen Winde wurden dagegen noch in mehreren hundert Kilometern Abstand von der Küste beobachtet. (Vf.)

**Reuter F.** - Die halbjährige Luftzirkulation in Beziehung zu den Schwankungen der ozeanischen Zirkulation und des Eisvorkommens bei Island und Neufundland [*Circulatio aëria semestralis pro oscillationibus circulationis oceanicae et glaciebus in Hibernia et Terra nova*]. 3 Tab. Ann. d. Hydrogr., LXIV, 7, 286-291. Berlin (1936). **a - 1587**

Meinardus' Theorie in Bezug auf den Zusammenhang zwischen den Schwankungen der atmosphärischen Zirkulation und der Wärmeführung des Golfstromes. Der von Helland-Hansen und Nansen nachgewiesene Zusammenhang zwischen dem Gang der Jahresmittel der Sonnenflecken und demjenigen der Wasser – und der Lufttemperatur im Nordatlantik. Die Eisverhältnisse bei Island und Neufundland und ihr Zusammenhang mit der Atlantischen Zirkulation.

**Reuter F.** - Die Witterungsverhältnisse an der Kerguelen-Station zugleich ein Beitrag zur Frage der Druckwellen auf der Südhalbkugel südlich 30° s. Br. [*Condiciones meteorologicae in statione* Kerguelen *et contributio in solvendum problema undarum pressionis in haemisphaerio merid.*]. Veröff. Geophys. Inst. Univ., 2-te Ser., Spezialarb. Geophys. Inst., V, 4, 211-339. Leipzig (1932). **a - 1588**

**Richardson B.** - Solar Radiation at the Scripps Institution, La Jolla, Calif., 1928-34. [*Radiationes solares in* Scripps Institution, La Jolla Calif. *1928-34*]. 1 fig., 4 tables. Monthly Weath. Rev., LXIII, 3, 92-93. Washington D. C. (1935). **a - 1589**

Summary of the results obtained by the Scripps Institution by measuring solar radiation, carried on because of investigations in evaporation rates of open bodies of water, seasonal weather forecasts, and the dynamical theory of ocean tides and currents.

**Richter N.** - Meteorologische Beobachtungen zwischen + 50° und — 35° Breite auf einer astronomischen Forschungsreise im Frühjahr 1933. [*Observationes meteorologicae inter + 50° et — 35° latitudinis perdurante navigatione astronomica vere 1933*]. 1 Tab. Ann. d. Hydrogr., LXIV, 4, 162-168. Berlin (1936). **a - 1590**

Die hier vom 23. März bis zum 17. Juni im Atlantischen Ozean ausgeführten Beobachtungen interessieren hauptsächlich die Bewölkungs- und Sichtverhältnisse: Allgemeiner Witterungscharakter und Bewölkungsverlauf. Tagesbeobachtungen. Spezielle und fortlaufende Beobachtungen bei Nacht auf hoher See. Zusammenstellung der mittleren Bedeckung.

**Rodewald M.** - Das norddeutsche Hochdruck-Gewitter vom 19. August 1932. Schlussmitteilung [*Tempestas alta pressione in Germania sept. die 19 mensis Augusti 1932*]. 19 Abb., 2 Taf., 1 Tab. Ann. d. Hydrogr., LXIV, 4, 143-153. Berlin (1936). **a - 1591**

Es wird gezeigt, dass das norddeutsche Hochdruckgewitter vom 19. August 1932 - als Vorläufer gleichartiger, weiter im Nordosten stattfindender Nachgewitter - dem Typus von R. Scherhag untersuchten nächtlichen Küstengewitter zuzuordnen ist. Scherhags Folgerungen betreffend das Zustandekommen dieser Gewitter ist durch die Untersuchung auch in diesem Falle bestätigt. Zum Schluss wird die Vorhersagemöglichkeit besprochen.

**Rodewald M.** - Die nordatlantische Lufttemperaturverteilung vor Entstehung einer langlebigen Oktober-Sturmzyklone auf dem 50. Breitenkreis [*De temperaturae distributione in Atlantico sept. ante cyclonis initium, mense Octobri*]. 1 Taf. Ann. d. Hydrogr., XLIV, 6, 264-266. Berlin (1936). **a - 1592**

Erläuternde Bemerkungen zu einem dem 4. Quartalsheft der Hoffmeyer-Karten (hrsg. v. Dän. Meteorol. Inst. u. d. Dtsch. Seewarte) entnommenen Fall von Sturmzyklonenbildung in mittleren Breiten.

**Rodewald M.** - Wetterskizzen. Nr. 8: Die Entstehungsbedingungen einer Labradorstrom–Sturmzyklone [*Adumbratio meteorologica. Condiciones formationis cyclonicae in currentia Labradorica*]. 1 Karte. Ann. d. Hydrogr., LXIV, 8, 371-373. Berlin (1936). **a - 1593**

Analyse eines den Hoffmeyerkarten entnommenen Falles von Sturmtiefbildung bei Labrador vom 17. bis 19. Oktober 1901.

**Rodewald M.** - Die Neuordnung des nordamerikanischen Orkan-Warnungsdienstes [*Ratio renovata quoad munera pro coeli condicionum provisione in America sept.*]. 1 Taf. Seewart, V, 1, 14-18. Hamburg (1936). **a - 1594**

Es wird, nach einem kurzen Rückblick auf die Geschichte des westindischen Orkanwarnungsdienstes, über dessen umfassende Neuorganisation im Jahre 1935 berichtet. Diese ist aufgebaut auf dem Prinzip der Dezentralisation; es wird gezeigt, wie hierbei der meteorologische Apparat mit den neuzeitlichen Hilfsmitteln von Funk und Fernschreiber eine möglichst rasche und gutfundierte Wetterberatung erreichen will, welches hierbei die Aufgaben der Schiffahrt sind und wie ihre meteorologische Sicherung vor sich gehen soll. (Vf.)

**Rodewald M.** - Die Bildung westindischer Orkane im Zusammenhang mit der nordatlantischen Wetterlage [*De tempestatibus in Indiis occid. pro meteorologia Atlantici sept.*]. 2 Taf. Seewart, V, 6, 205-214. Hamburg (1936). **a - 1595**

Es wird die nordatlantische Wetterlage bei drei westindischen Orkanbildungen des Jahres 1935 besprochen und gezeigt, dass gewisse Gesetzmässigkeiten in den gemässigten und subtropischen Breiten der Orkanbildung vorausgehen. Von Bedeutung für die tropische Zyklonentwicklung erscheint ein aus den gemässigten Breiten weit südwärts gehender Kaltluftvorstoss; dieser gibt sich im Luftdruckbilde durch einen interpassatischen Tiefausläufer mit Kaltfront und durch entsprechende Teilung des Rossbreitenhochs zu erkennen. (Vf.)

**Rothe E.** sous la direction de ..... - Annuaire de l'institut de Physique du Globe 1932. Première Partie: Météorologie [*Annuarium Instituti pro Physica Orbis A. 1932. Pars I<sup>a</sup>: Meteorologia*]. 20 tabl., fig., vii + 112 + 4 pp. Univ. Strasb., Fac. Sc. Strasbourg (1933).

(—) Annuaire de l'Institut de Physique du Globe 1933. Première Partie: Météorologie. 20 tabl., 1 pl. 87 + 5 pp., Univ. Strasb., Fac. Sc. Strasbourg (1934). **a - 1596**

Annuaire de l'Institut, contenant en dehors du rapport annuel sur l'activité de l'Institut dans le domaine de la météorologie, illustré par 20 tableaux, quelques travaux personnels de ses collaborateurs, ainsi que le « Bulletin annuel de la Commission Météorologique du département du Bas-Rhin, 1933 ».

**Rudloff W.** - Golfstromzyklonen. Eine synoptisch-dynamische Untersuchung über die Entstehung nordatlantischer Sturmzyklonen in ausgewählten Beispielen [*De cyclonibus ad* Golfstrom *pertinentibus. Investigationes synopticae dynamicae de cyclonibus in Atlantico Nordico*]. 3 Taf., 5 Tab. Ann. d. Hydrogr., LXIV, 5, 185-198. Berlin (1936). **a - 1597**

Zyklonen, die südlich von 50° N über dem vom Golfstrom beherrschten Gebiet des West-Atlantiks erscheinen, seien Golfstromzyklonen genannt. Sie entstehen durch den labilisierend wirkenden Vorstoss eines Hochs (Kaltluftaktivierung) meist nahe dem dreissigsten Breitenkreis und entwickeln sich alsdann durch das Hinzutreten eines hohen Fallgebietes zu Zyklonen, die grosse Teile des Weltmeeres beherrschen. Die oft beobachtete Umwandlung flacher, vom Festland kommender Tiefs in Sturmtiefs beim Betreten des Meeres lässt sich erklären durch das Vorhandensein der durch die aktivierte Kaltluft vorlabilisierten Luft, in der es aus Zeitmangel nicht mehr zur Entwicklung einer selbständigen Zyklone kam. Die untersuchten Beispiele lassen den Vf. die Vermutung aussprechen, dass hinreichend für die Entstehung winterlicher nordatlantischer Sturmzyklonen ist: 1. der Vorstoss eines hohen Drucksteiggebietes und dadurch erfolgende Kaltluftaktivierung über die warme Meeresluft, 2. Vertiefung der entstandenen Golfstromzyklone durch ein hohes Druckfallgebiet. (Vf.)

**Samuels L. T. -** Aerological Observations [*Observationes aërologicae*]. 2 tables. Monthly Weath. Rev., LXIII, 9, 277-278. Washington D. C. (1935). **a - 1598**

Data on mean free-air temperature and relative humidity observed in the United States by airplanes during September 1935, and free-air resultant winds based on pilot-balloon observations.

**Scherhag R. -** Eine bemerkenswerte Klimaänderung über Nordeuropa [*De notanda quadam variatione climatica in Europa sept.*]. 2 Taf., 6 Tab. Ann. d. Hydrogr., LXIV, 3, 96-100. Berlin (1936). **a - 1599**

Es wird die ausserordentliche Erhöhung der Wintertemperaturen über Grönland, der Ostgrönland-See und dem Ostspitzbergen-Meer untersucht und nachgewiesen, dass die Klimaänderung mit einem erheblichen Rückgang der Eisgrenze und einer bedeutenden Zunahme der atmosphärischen Zirkulation zusammenhängt. (Vf.)

**Scherhag R. -** Die Entstehung des Nordsee-Orkantiefs vom 19. Oktober 1935. Anwendung der Divergenztheorie auf eine herbstliche Sturmzyklone [*De origine et formatione depressionis in Mari Nordico die 19 Octobris 1935*]. 1 Taf. a. T., 1 Tab. Ann. d. Hydrogr., LXIV, 4, 153-160. Berlin (1936). **a - 1600**

1. Ausdehnung und Stärke des Sturmes vom 19. Oktober. - 2. Die rasche Entstehung des Sturmtiefs. - 3. Der Druckfall und die Divergenz der Bodenisobaren. - 4. Berechnung der Zunahme der kinetischen Energie über dem nordeuropäischen Raum bei der Bildung des Orkantiefs. 5. Berechnung der Dimension der energiedispendenden Frontalzone. - 6. Die Dimension der erzeugten Frontalzone erfüllt die Forderung der Divergenztheorie. - 7. Die gleichzeitige Zerstörung der Frontalzone. - 8. Folgerungen für die grossräumige Wetterentwicklung.

**Scherhag R. -** 1. Wetterskizzen. Nr. 1: Ungewöhnlich hoher Luftdruck in der Arktis und grosse Sturmhäufigkeit in der Biskaya im Winter 1935/1936 [*Adumbrationes meteorologicae. Pressio barometrica maxime demissa in Oceano Arctico atque frequentia tempestatum in Sinu Vasconico*]. 1 Abb., 2 Tab. Ann. d. Hydrogr., LXIV, 5, 215-218. Berlin (1936). **a - 1601**

Entstehen, Verbreitung und Verweilen dieses Hochs; Charakter der Sturme in der Biskaya. Intensität und Lage der Zentren der Druckanomalien im Winter 1935-1936, Abweichungen von Druck und Temperatur.

**Scherhag R. -** Bemerkungen zur Entstehung der Golfstromzyklonen [*Observationes quoad cyclonum initium in* Golfstrom]. Ann. d. Hydrogr., XLIV, 6, 256-259. Berlin (1936). **a - 1602**

Es wird die Stellung genommen zu dem im vorigen Heft dieser Ztschr. erschienenen Versuch von W. Rudloff, die Entstehung der Golfstromzyklonen mit der Feuchtlabilität zu deuten und auf die offenbare Unzulänglichkeit seiner Beweisführung hingewiesen. Anschliessend wird betont, wie gerade die Golfstromzyklonen auf Grund der horizontalen Temperaturgegensätze ohne Schwierigkeit erklärt werden können. (Vf.) - Kritische Bemerkung zu diesem Artikel von W. Rudloff in dieser Ztschr. 7, 322-323.

**Scherhag R. -** Wetterskizzen. Nr. 7: Taupunkt und Stratusbildung über See [*Adumbratio meteorologica. Caliginis et nubium formatio ad mare*]. 1 Tab. Ann. d. Hydrogr., LXIV, 8, 370-371. Berlin (1936). **a - 1603**

Ergebnisse der während Mai 1936 an Königsberg ausgeführten Messungen um zu prüfen, ob der Taupunkt im Vergleich mit der Wassertemperatur ein quantitatives Mass für die Kondensation auf See zu geben vermag.

**Schnegelsberg L. -** Das Messen der Lufttemperaturen auf Schiffen [*De aëris temperaturis in navibus dimensis*]. Seewart, V, 8/9, 239-243. Hamburg (1936). **a - 1604**

Es wurden vergleichende Temperaturmessungen mit drei verschiedenen Thermometern angestellt, wobei das Assmannsche Aspirationsthermometer als Grundlage galt. Das Bordthermometer zeigte die schon bekannten Fehlmessungen, die sich jedoch durch richtige Wahl des Messortes vermindern lassen. Die Wärmeausstrahlungen scheinen unter den die Ablesung verfälschenden Ursachen obenan zu stehen. (Vf.)

**Schröder G. -** Beobachtungen des « Grünen Strahls » [*Observationes quoad « radium viridem »*]. 1 Tab. Ann. d. Hydrogr., LXIII, 9, 336-340. Berlin (0935). **a - 1605**

Nach einer allgemeinen Beschreibung dieser von vielen Seeleuten bekannten Erscheinung führt Vf. acht erläuternde Beispiele an und gibt in einer Tabelle sämtliche während der Fahrt des D. « Gera » von Gibraltar bis Ceylon im Januar 1934 zusammengestellte Wahrnehmungen wieder.

**Schwieker H. -** Klimatographische Witterungsschilderung. Nr. 67. Seeverkehrsweg: Mittlerer Nordatlantik [*Descriptio meteorologica alicuius hiemalis diei in Oceano Atlantico sept. et centr.*]. Ann. d. Hydrogr. XLIV, 6, 271. Berlin (1936). **a - 1606**

Verlauf eines Wintertages (7. Dez. 1934) in der Nordost-Passat-Region des Atlantischen Ozeans auf 25.9° N und 52,3° W.

**Slocum G. -** Sea-Surface Temperature Summary for the East Central Gulf of Mexico, 1912-1933 [*Summarium temperaturarum superficialium in regione occidentali–centrali Sinus Mexicani 1911-33*]. 1 table. Monthly Weath. Rev., LXIII, 2, 71. Washington D. C. (1935). **a - 1607**

Monthly and annual sea-surface temperatures from January 1912 to December 1933 inclusive in the east central Gulf of Mexico.

**Slocum G. -** Sea-Surface Temperature Summary for the Western Caribbean Sea [*Summarium temperaturarum superficialium Maris Caraibici Orient*]. 1 table. Monthly Weath. Rev., LXIII, 3, 113. Washington D. C. (1935). **a - 1608**

Data on monthly and annual surface temperatures, computed to tenths of a degree for the period 1920 to 1933, included.

**Solberg H.** - Bemerkungen zu der von Giāo behaupteten Integration der Atmosphärischen Störungsgleichung [*Observationes quoad integrationem aequationis perturbationum atmosphaericarum quam* Giāo *tenet*]. Un. Géod. & Géoph. Int., Assoc. Météorol., Pr.-V., V-e Ass. Gén., Sept., 1933, Lisbonne, II Mém. & Disc., 71-76. Paris (1935). **a - 1609**

Eingehende Kritik der in einem Vortrage auf der Versammlung der « Association Internationale de Météorologie » in Stockholm 1930 und in der Abhandlung « Recherches sur les perturbations mécaniques des fluides » von Giāo behaupteten Integration der atmosphärischen Störungsgleichung.

**Sparn E.** - Bibliografia meteorològica y climatològica de la Republica Argentina y de las regiònes Antàrtica y Sub-Antartica americanas. 1924-1931 [*Bibliographia meteorologica et climatologica Reipublicae* Argentina *et regionum antarcticae et subantarcticae americanarum*]. Extr: Rev. Univ. Nac., XX, 9-10, 1-47. Cordoba (1934). **a - 1610**

**Stone R. G.** - Fog in the United States and Adjacent Regions [*De caligine in America et regionibus adiacentibus*]. 4 figs., 1 table. Geogr. Rev., XXVI, I, 111-134. New York (1936). **a - 1611**

After recalling the attention of the reader to the menace of fog to navigation author gives an explanation and interpretation of the data appearing on the accompanying maps and graphs, which illustrate the distribution of fog in the United States, the different types of fog and the geographical domain of each type. He illustrates the outstanding characteristics of each of the larger groups of regimes, i. e. Oceanic, Continental, Littoral and Great Lakes.

**Sverdrup H. U.** - Das maritime Verdunstungsproblem [*De evaporatione maritima*]. 2 Abb. Ann. d. Hydrogr. LXIV, 2, 41-47. Berlin (1936). **a - 1612**

Wenn man berücksichtigt, dass über dem Meer eine semi-laminare Grenzschicht vorhanden ist, und dass die Meeresoberfläche eine mit wachsender Windgeschwindigkeit wachsende Rauhigkeit besitzt, kann man auf Grundlage der Ergebnisse der Turbulenzforschung in den Laboratorien eine theoretische Formel für die Verdunstung aufstellen, die zu einer weitgehenden Uebereinstimmung mit beobachteten Werten führt. (Vf. Rés.)

**Sverdrup H. U.** - Air Circulation over the Polar Sea [*Aëris circulatio per mare polorum*]. (In Engl. Russ. Summ.). 11 figs. Arctica, II, 47-63. Leningrad (1934). **a - 1613**

Review of the most important results of the study of some general features of the air circulation over the Polar Sea treated by the author in his discussion of the meteorological observations on the « Maud » -expedition. (S.: H. U. Sverdrup. Meteorology. Part. I. Discussion. - The Norwegian North Polar Expedition with the « Maud », 1918-1925. Scientific Results. Vol. II).

**Sverdrup H. U.** - Klima des Kanadischen Archipels und Grönlands. I. Uebersicht über das Klima des Polarmeeres und des Kanadischen Archipels [*De climate archipelagi Canadensis et Groenlandici. I. Conspectus climaticus Maris Polaris et Archipelagi Canadensis*]. Abb., Tab., Handb. Klimatol., II, Teil K, K 1- K 30. Berlin (1935). **a - 1614**

**Tannehill I. R.** - A Relation Between Temperature and Cyclone-Frequency in the Tropics [*Correlatio inter temperaturam et frequentiam cyclonum tropicalium*]. 5 figs. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 121-124. Washington D. C. (1935). **a - 1615**

On hand of records of the variation of the monthly temperature and those of monthly frequency of tropical cyclones, author concludes that the double period in the annual variation in insolation in equatorial regions is accompanied by a double variation in temperature which appears to be the cause of the two maxima of cyclone-frequency as recorded in the average year in some tropical regions.

**Travniček F.** - Zur Kenntnis der Quellgebiete atmosphärischer Unruhe [*De cognoscendis causis perturbationum atmosphaericarum*]. 2 graph. Fig. Ann. d. Hydrogr., LXIV, 3, 100-107. Berlin (1936). **a - 1616**

Diese Arbeit hat den Zweck, die Einsicht in Lage und Ursache der grossen Entstehungs - oder Quellgebiete atmosphärischer Unruhe in zwei übersichtlichen Darstellungen zu veranschaulichen. Die eine, kartographische, Darstellung, welche Vf. schon in der Meteorol. Ztschr. S. 241, 1928, entwickelt hat, wird hier wieder erörtert und die neue Darstellungsmethode, welche auf die Isolinien ruht, wird hier durch Kurven veranschaulicht.

**Väisälä V.** - New Method of Sounding by Radio [*Ratio nova mensurarum atmosphaericarum radio auxilio*]. 12 pp. Soc. Scient. Fennica, Acta & Comm. Phys. Math. VIII, 14. Helsinki (1935). **a - 1617**

Any change of pressure or temperature can be shown by the wave- lengths of radio waves thanks to alteration of the capacities of condensers due to changes in temperature and pressure.

**Voznesensky A. V.** - Under the Supervision of. . . . Materials for the Climatology of the Polar Regions of the URSS. Part I: The Climate of Dickson Island [*Res collectae circa climatologiam regionum polarium ad URSS pertinentium. Pars I et II: Insulae* Dickson *clima*]. (In Russ. Engl. Summ). 12 figs., 37 tables, 19 tables in app. Trans. Arct. Inst., XLVI, 5-70. Leningrad (1936). **a - 1618**

The present outline of the climate on the Arctic Station on Dickson Island (lat. 73°30′ N; long. 80°23′ E.) may be considered as a first attempt made by the Geophysical Section of the Arctic Institute to give a more or less systematic account of the climate of Soviet polar regions based on modern data. On hand of the main meteorological results of the three daily standard observations during 1916-1934 on the Dickson Station, data are communicated concerning the air pressure, temperature and humidity, wind cloudiness, precipitation, snow cover, blizzards, and fogs.

**Vring (v. d.) E.** - Meteorologische Beobachtungen deutscher Schiffe auf den Seeverkehrswegen [*Observationes meteorologicae peractae a navibus germanicis praeter cursus maritimos*]. 1 Taf., Seewart IV, 4, 184-185. Hamburg (1935). **a - 1619**

Verzeichnis über die Anzahl der Schiffe und ihre Reisen während 1934 zusammengestellt von freiwilligen Mitarbeitern meteorologischer Beobachtungen.

**Vring (v. d.) E.** - Deutsche meteorologische Beobachtungen auf den Seeverkehrswegen 1935 [*Observationes meteorologicae germanicae praeter cursus maritimos, A. 1935*]. 1 Taf. a T. Seewart V, 2, 69-72. Hamburg (1935). **a - 1620**

Verzeichnis der durch die freiwillige Mitarbeit von Kapitänen und Offizieren im Jahre 1935 gemachten Einzelbeobachtungen. Eine Uebersichtskarte zeigt die Verteilung der einzelnen beobachteten Schiffe auf den verschiedenen Verkehrswegen.

**Wagemann H.** - Prognoseprüfung [*De temporis prognosi. Reinspectio*]. 1 Tab. Ann. d. Hydrogr., LXIII, 7, 270-275. Berlin (1935). **a - 1621**

Geschichtliches über die Entwicklung der Aufstellung wissenschaftlich begründeter Wettervorhersagen seit der zweiten Hälfte des vorigen Jahrhunderts. Stellungsnahme von Köppen gegenüber diesem Probleme. Beiträge von Schmauss und Heidke zu derselben Frage. Beschreibung einer Methode zur Prüfung der Wettervorhersagen, welche mit gutem Erfolg vom Vf. angewandt worden ist.

**Wasserfall K. F.** - The 27-day Period in Temperature-Data [*De periodo 27 dierum in datis temperaturae*]. 2 figs., 2 tables. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 161-162. Washington D. C. (1935). **a- 1622**

Account of a work with the periodic phenomena of geophysical data showing that in the temperature-data of Oslo the 27-day period is nicely developed. By the aid of the Koch-Blanford method author gives a clear picture of each periodic series, as shown by the figures which illustrate the paper.

**Webster, Munro & Higgs** - Thunderstorms in the Tasman Sea and Coral Sea, March 1934 [*Tempestates maris Tasmaniae et maris Coralliorum, mense Martio 1934*]. Meteorol. Mag. IV, 71. London (1936). **a - 1623**

**Wegener A. & Wegener K.** - Vorlesungen über Physik der Atmosphäre [*Conferentiae circa physicam atmosphaericam*]. 192 Abb. xii + 482. Joh. Ambrosius Barth. Leipzig (1935). **a - 1624**

Erweiterung des in 1911 erschienenen Werkes « Thermodynamik der Atmosphäre ». Das erste Kapitel behandelt die Trübung der Atmosphäre, die folgenden: Thermodynamik, Wasser, Eis und Wasserdampf, Optik, Akustik der Atmosphäre, Wärmeleitung, Strahlung, Luftelektrizität und Mechanik der Atmosphäre.

**Wegener K.** (Hrsg.). - Wissenschaftliche Ergebnisse der Deutschen Grönland- Expedition Alfred Wegener 1929 und 1930-31. Band IV: Meteorologie. 1. Halbband: Das Beobachtungsmaterial von Johannes Georgi, Rupert Holzapfel und Walter Kopp. Anhang: Gezeitenbeobachtungen von Heinrich Rauschelbach [*Resultatus scientifici ex germanica expeditione in Groenlandiam ab Alfredo* Wegener *directa, A. 1929 et 1930/31. Vol. IV. Meteorologia. Pars I*ª: *Res collectae ad observationes deducendas. Supplementum. Investigationes in aestus maris*]. 625 Abb., Tab. u. Kart., 559 S. F. A. Brockhaus. Leipzig (1935). **a - 1625**

Dieser Abschnitt des umfangreichen Sammelwerkes über die Meteorologie hat sich als Ziel drei Hauptaufgaben gesetzt: 1. eine klimatologische Winterstation im zentralen Firngebiet des Inlandeises in 2500 bis 3000 m. Seehöhe. 2. Ein aerologischer Querschnitt durch die glaziale Antizyklone. 3. Kleinere Meteorologie-Arbeiten. S. weitere Bespr. von M. Rodewald in Ann. d. Hydrogr., 3, 131-125. Berlin (1936).

**Weger N.** - Dampfdruck und Verdunstung bei Meerwasser [*Vaporis pressio et evaporatio aquae marinae*]. 2 Tab. Ann. d. Hydrogr., LXIII, 10, 397-400. Berlin (1935). **a - 1626**

Es werden die Dampfdruckerniedrigung über Meerwasser und deren Einfluss auf die Verdunstung und die Luftfeuchtigkeit theoretisch untersucht. Die so gefundenen Gesetzmässigkeiten lassen eine Deutung der von einander abweichenden Beobachtungsergebnisse verschiedener Autoren über die Verdunstung von Meer- und Süsswasser zu.

**Wiese W.** - Zur Frage der Messung der Lufttemperatur auf Schiffen in Arktischen Gewässern [*De aëris temperatura mensuranda in navibus per aquas arcticas navigantibus*]. (In Russ. Dtsch. Rés.). Tab. Arctica, II, 39-45. Leningrad (1934). **a - 1627**

Kurzer Bericht über die an Bord des Eisbrechers « Sibirjakow » ausgeführten Lufttemperaturmessungen mit einem auf dem Peilkompassdeck frei aufgehängten Assmannschen Aspirationspsychrometer, und mit einem in einer Stevensonschen Holzjalousiehütte aufgestellten Thermometer. Der Vergleich der beiden Beobachtungsreihen zeigt, dass die Differenz ungefähr + 0,025° beträgt.

**Wirtz C.** - Ueber die blaue Farbe des klaren Himmels an der Nordseeküste Schleswig-Holsteins [*De coeli colore coeruleo ad litora Maris Nordici apud* Schleswig-Holstein]. 4 Tab. Ann. d. Hydrogr., LXIII, 11, 442-444. Berlin (1935). **a - 1628**

1. Methodisches: Ziel der Beobachtungen. - 2. Beobachtungen aus 1933. - 3. Beobachtungen aus 1932. - 4. Bemerkung zu Theorie und Beobachtung.

**Wirtz C.** - Untersuchungen über die Sicht an der Nordseeküste Schleswig-Holsteins [*De visibilitate prope litora Maris Nordici apud* Schleswig-Holstein]. 4 Tab. Ann. d. Hydrogr. LXIII, 12, 482-487. Berlin (1935). **a - 1629**

Gegenstand, Ort, Genauigkeit der Beobachtungen. Beobachtungen eines dunklen irdischen Zieles 1932 und 1933. Tagesperiode der Sicht. Beobachtungen der Kimm in den Jahren 1934 und 1932; Tagesgang der Kimmsicht. Abhängigkeit der Kimmsicht von der Augeshöhe. Sichtmessung und Schätzungsskala. Sicht und Himmelsbläue. Widersprüche in den Ergebnissen.

**Zistler P. & Miller F.** - Meteorologischer Reisebericht und Ergebnisse der Höhenwindmessungen von der Fahrt nach Kamerun Juli-Augusti 1933 [*Relatio meteorologica et resultatus mensurationum circa ventum in altis coeli stratis inter navigationem peractarum ad* Kamerun *a mense Julio ad Augustum 1933*]. Tab., 9 Anh. Taf., Aus. d. Arch. Dtsch. Seew. LIV, 2, 1-41. Hamburg (1935). **a - 1630**

1. Ziel und Verlauf der Reise. II. Meteorologischer Reisebericht. III. Sonnenstrahlungsmessungen. IV. Höhenwindmessungen.

**Annali del R. Ufficio Centrale di Meteorologia e Geofisica Italiano. Osservazioni 1924** Serie III [*Annales officii centralis Italici pro meteorologia et geophysica. Series III. Observationes A. 1924*]. 198 pp., Ist. Poligr. dello Stato. Roma (1935). **a - 1631**

Questo volume è costituito di due parti; la prima è dedicata agli Osservatori con dati: medie mensili ed annue; la seconda parte alle stazioni termo-pluviometriche.

**British Meteorological Office** - Decode for Use with the International Wireless Weather Messages from Ships, 3rd Edition, Revised to Ist November 1934 [*Decifrans ad utendos nuntios internationales marconigraphicos a navibus. Editio 3*ª, *recognita usque ad diem 1 Novembris 1934*]. 28 pp., Meteorol. Off., London (1934). **a - 1632**

**British Meteorological Office** - Fleet List. Voluntary Observing Ships [*Classis elenchus. Naves observatrices*]. 1 table. Mar. Obs. XIII, 121, i-viii. H. M. Stat. Off. London (1936). **a - 1633**

Complete list of British observing ships regularly carrying out voluntary services of marine meteorology with the guidance of the Marine Division of the Meteorological Office.

**Canton Meteorological Observatory** - Monthly Meteorological Bulletin, July and August, 1935 [*Bulletinus meteorologicus menstruus. Mense Augusto 1935*]. Tables, diagrs., 14 pp + 11 pp., Meteorol. Observ., Canton 1935). **a - 1634**

Daily and hourly values of meteorological elements. March of daily and hourly mean meteorological elements, Wind rose.

**Deutsche Seewarte** - Norder im Golf von Tehuantepec [*De tempestate* Norder, *ut dicitur, in Sinu* Tehuantepec]. Seewart, IV, 4, 178-180. Hamburg (1935). **a - 1635**

Auszug aus dem vom 3. Offizier A. Hops, MS. Los Angeles, H.-A. L. übersandten Bericht über den am 19.-20. Februar beobachteten Norder. Anmerkung der Schriftleitung: Bestätigung der als Tehuantepec- Norder bezeichneten Erscheinug, ihre Entstehung.

**Deutsche Seewarte** - Beobachtungen von Wasserhosen in sechs verschiedenen Meeresteilen [*Observationes circa columnas marinas ad sex maria diversa pertinentes*]. 1 Taf. Seewart, V, 6, 167-174. Hamburg (1936). **a - 1636**

Allgemeine Anweisungen für Beobachtungen. Berichte über die in verschiedenen Teilen von der Ost- und Nordsee sowie im Atlantischen, Indischen, Stillen Ozean und Mittelmeer durchgeführten Beobachtungen.

**Deutsche Seewarte** - Zur Bestimmung der Windstärke auf See. Vergleichende Beobachtungen des Seegangs [*De ventorum vis determinatione. Observationes comparativae circa undarum maris motum*]. 1 Taf. Seewart, V, 6, 189-192. Hamburg (1936). **a - 1637**

Beschreibung einer neuen zur Ergänzung der Beaufort- Skala dienenden Seegangs-Skala.

**Deutsche Seewarte** - Heftige Fallwinde im Golf von Hagion Oros [*Venti perpendiculares in Sinu* Hagion Oros]. 1 Taf., Seewart, V, 6, 192-193. Hamburg (1936). **a - 1638**

Bericht über die am 29. März 1936 in der Bucht von Hagion Oros aufgetretenen heftigen und böigen Fallwinde. Erklärung.

**Deutsche Seewarte** - Zur Statistik der Stürme an der deutschen Küste. Beobachtungsjahr 1933 [*Statistica tempestatum ad litora germanica. A. 1933*]. 1 Taf. Statist. Stürme dtsch. Küste, I, Dtsch. Seewarte. Hamburg (1934). **a - 1639**

**Government Meteorologist. Jamaica** - A Report on the Hurricane of Western Jamaica, October 29, 1933 [*Relatio de tempestate in Jamaica Occidentali die 29 Octobris 1935*]. 1 pl., tables. 11 pp. Kingston, Jamaica (1934). **a - 1640**

**International Meteorological Organization** - Commission for Synoptic Weather Information [*Relatio Commissionis tempore providendo. Consessus Mense Majo habito a die 12 ad 18 A. 1934*]. 212 pp. Report of the ninth Meeting, De Bilt, May 12-18, 1934, No. 19. Utrecht (1935). **a - 1641**

**Koninklijk Nederlandsch Meteorologisch Instituut** - Oceanographic and Meteorological Observations in the China Seas and in the Western Part of the North Pacific Ocean. I. Monthly Charts for January-June (1910-1930) [*Observationes oceanographicae et meteorologicae in maribus Sinensibus et in regione occid. Oceani Pacifici Nordici. I: Tabulae menstruae a mense Januario ad Junium* (*1910-1930*)]. (Text in Engl. & Dutch). Charts, 46 pp. Publ. Kon. Ned. Meteorol. Inst. No. 115. 's–Gravenhage (1935). **a - 1642**

Introductory remarks on the cooperation developed between the different countries. Surface currents. Current roses. Winds: general air circulation, wind roses. Pressure and air temperature. Sea surface temperature. Storms. Gales. Tracks of typhoons 1910-1930. Tracks of continental depressions 1928-1931.

**Malay Meteorological service** - Upper Wind Roses from Pilot Balloon Observations, 1932-33 [*Rosae ventorum superiorum deductae ab observationibus sphaericorum auxilio depromptis 1932-1933*]. Meteorol. Serv., Surv. Dpt. Malay (1934). **a - 1643**

**Marine Superintendent** - Observations and Weather Forecasting and Some of Their Bearings on the Sea Service [*Observationes coeli condicionum et praedictiones. Correlationes cum Servitio maritimo*]. Mar. Obs., XIII, 122, 45-46. London (1936). **a - 1644**

After some introductory remarks on the improvements in the meteorological observations after the Great War, author gives a brief account on the activity of a Committee of the Chamber of Shipping of the United Kingdom mainly concerned with the advantages which might accrue to navigation by the more general use of reliable barometers and thermometers at sea. Author claims that the development of weather forecasting in ships at sea as a branch of seamanship will greatly improve the safety of life at sea.

**Meteorological Office** - Pilot Balloon Slide Rule. Mark 1 [*Regulus calculator pro sphaericis pilotis*]. 5 fig. 1 o. t. Rev. Hydrogr., XIII, 1, 132-134. Monaco (1936). **a - 1645**

**Ministerio de Fomento - Servicio Meteorologico Nacional** - Resumen Mensual de las Observaciones Meteorologicas por el Ing. G. A. Wagner. Jefe del servicio [*Compendium menstruum observationum meteorologicarum. Ingeniere* G. A. Wagner *auctore*]. Año VII. Observatorio Central. Lima (1935). **a - 1646**

**Ministarstvo Gradevina - Hidrotehnicko Odelenje - Jugoslavia** - Izvestaj o Vodenim Talozima, vodostajima i kolicinama vode za 1932 god [*Bulletinus praecipitationum atmosphaericarum, aquarum pluviatilium livelli A. 1932*]. Tabl., 8 tabl. h. t., 7 cartes & diagr. h. t., iii–x, 1-347. Sarajevo (1934). **a - 1647**

Après une introduction, dans laquelle certains détails sont donnés concernant l'organisation du service hydrographique yougoslave depuis la réunion du Royaume des Serbes, des Croates et des Slovènes, jusqu'à l'année 1932, sont publiées les données statistiques qui résument les résultats des observations faites sur les différentes stations hydrométriques et pluviométriques yougoslaves.

**Norsk Meteorologisk Institutt** - Meteorological Observations Made on 9 Norwegian Whaling Floating Factories During the International Polar Year 1932-1933 [*Observationes meteorologicae peractae in 9 ratibus fluctuantibus norvegicis, Anno polorum internationali perdurante. 1932-1933*]. Tables. Norw. Publ. Int. Polar Year 1932-33, 1, 3-53. Oslo (1935). **a - 1648**

In the autumn of 1931 the President of the Norwegian Committee for the Polar Year asked the Whaling Association to perform meteorological observations in the Antarctic during the International Polar Year 1932-33. In the present Report the results of those observations are published.

**Office National Météorologique & Société Météorologique de France** - Bibliographie météorologique [*Bibliographia meteorologica*]. Tome XII, Année 1932. Paris (1935). **a - 1649**

XIIème volume de la publication, contenant 1545 titres d'ouvrages météorologiques, groupés et classifiés selon la matière dont ils traitent. Le volume contient aussi un supplément, dans lequel sont indiqués les ouvrages de météorologie générale publiés avant l'année 1932, muni d'un index alphabétique des auteurs. Cet appendice contient 460 titres d'ouvrages et de nombreux sommaires.

**Organisation Météorologique Internationale** - Listes des stations climatologiques. 1. Europe [*Stationum meteorologicarum elenchus. I. Europa*]. Tables, 182 pp. Secr. Organ. Météorol. Int., 22. Utrecht (1934). **a - 1650**

**Royal Meteorological Society** - Some Problems of Modern Meteorology: A Series of Papers by Various Authors Reprinted from the Quarterly Journal of the Royal Meteorological Society [*De problematis meteorologiae hodiernae*]. Maps, diagrs. v + 170 pp. R. Meteor. Soc. London (1934). **a - 1651**

A series of sixteen articles, published in the « Quarterly Journal » from 1930 to 1934 and constituting a survey of outstanding problems in meteorology to day. They are concerned with the theories of the circulation of the atmosphere (E. W. Barlow), the origin of cyclonic depressions (D. Brunt) and anticyclones (C. E. P. Brooks), the stratosphere (G. M. B. Dobson and A. R. Meetham), the problem of weather forecasting (C. K. M. Douglas), the upper-air data from the Antarctic (E. Kidson), the seasonal foreshadowing (C. W. R. Normand), etc.

**Royal Meteorological Society** - Bibliography of Meteorological Literature. Prepared by the Royal Meteorological Society with the Collaboration of the Meteorological Office [*Bibliographia rerum meteorologicarum redacta a Societate Londiniensi pro re meteorologica consociata opera Officii Meteorologici*]. III, 7, ii + 245-291. London (1935). **a - 1652**

**Servicio Meteorologico Español** - Instrucciones para las observaciones meteorologicas a bordo y claves de meteorogramas [*Praecepta ad observationes meteorologicas ducendas in navibus. Agitur etiam de redigendis meteorogrammatis*]. Lam., 87 pp. Publ. Serv. Meteorol. Esp. ser. C., 6. Madrid (1935). **a - 1653**

**Statens Meteorologisk-Hydrografiska Anstalt** - Meteorologiska iakttagelser i Sverige [*Observationes meteorologicae in Suetia*]. (Rés. et titres en français). Tabl. 107 pp. Årsbok 1932, XIV. Stockholm (1935). **a - 1654**

Tableaux sur les observations diurnes, les résultats mensuels et annuels, la température des pentades. Avant-propos indiquant les modes de calcul, instruments, explication des signes etc.

**Statens Meteorologisk- Hydrografiska Anstalt** - Månadsöversikt över väderlek och vattentillgång [*Relatio menstrua condicionum meteorologicarum et livelli aquarum cum relatione annua ab Instituto redacta*]. Tabl., 76 pp. Årsbok, 1935, XVII, 1. Stockholm (1936). **a - 1655**

Detailed reports for every month concerning weather, wind and gales, atmospheric pressure, precipitation, water level, ice conditions of the ports, aurora borealis. Summary report for the whole year.

**Statens Meteorologisk- Hydrografiska Anstalt** - Årsberättelse för 1935 [*Relatio annua pro A. 1935*]. (Swed. & Engl. Text.). Tabl., 21 pp. Suppl. Årsb., XVII. Stockholm (1936). **a - 1656**

The Staff; observations and field work; meteorological section, surveys for wind and gale, ice-signal service, air-observations, military service, climate, hydrographical conditions, international co-operation; library and publications.

**Union Géodésique et Géophysique Internationale. Association de Météorologie** - Réunion d'Edimbourg (1936). Programme de discussion. [*Consessus Edimburgi. A. 1936 Ratio discussionum*]. Paul Dupont. Paris (1935). **a - 1657**

Sur le problème des perturbations atmosphériques.

**U. S. Weather Bureau** - Climatological Tables. Condensed Climatological Summary [*Tabulae climatologicae*]. Tabl., charts on pl. Monthly Weath. Rev., LXIII, 4, 148-155; 5, 175-182. Washington D. C. (1935). **a - 1658**

Pressure (sea level, reduced to mean of 24 hours), temperature, precipitation, wind, visibility etc. for each Station indicated.

**U. S. Weather Bureau** - Meteorological Data [*Data meteorologica*]. Charts. Monthly Weath. Rev., LXIII, 9, 84-94; 11, 106-117. Washington D. C. (1935). **a - 1659**

Departure of the mean temperature from the normal, September 1935. Tracks of centers of anticyclones, and cyclones Sept. 1935. Percentage of clear sky between sunrise and sunset. Total precipitation. Isobars at sea level and isotherms at surface; prevailing winds. Wind roses for selected stations. Weather map of North Atlantic Ocean, for some dates of Sept. and November.

**E. G. B.** - Conference of Empire Meteorologists [*Congressus meteorologicus Anglicus*]. Nature, CXXXVI, 3436, 404-405. London (1935). **a - 1660**

Account of the conference held at the Meteorological Office, London, on August 12–21. Questions connected with aviation, synoptic meteorology, meteorology for the Army and for the Navy, marine meteorology, instruments etc.

**S. J.** - Quelques notions sur la brise de mer [*Notitiae de halitu marino*]. Nature, LXIII, 2, 220-221. Paris (1935). **a - 1661**

**An.** - La visibilité horizontale dans les colonies françaises [*De visibilitate horizontali in Coloniis gallicis*]. Nombr. fig. Ann. Phys. du Globe France d'Outre-Mer, II, 11, 129-159. Paris (1935). **a - 1662**

**An.** - Aerologic Observations on Polar Stations [*Observationes aërologicae stationum polarium*]. (In Russ. & Engl.). 1 table. Bull. Arct. Inst., V, 5/6, 138 & 180. Leningrad (1935). **a - 1663**

Table of observations taken during March 1935 on several Polar Stations of the USSR.

**An.** - Sur le psychromètre de Hassman [*De psychrometro* Hassman]. (En russe). Bull. Arct. Inst., V, 9, 290-291. Leningrad (1935). **a - 1664**

Information sur l'invention et l'emploi de l'instrument de Hassman avenue dans l'URSS 7 ans plus tôt de l'introduction en Allemagne d'un appareil analogue, pour la détermination du gradient vertical d'humidité de l'air au-dessus des mers arctiques.

**An.** - Le rechauffement de l'Arctique [*Auctio temperaturae in Artide*]. (En russe). Khoz. Sev., 11, 61. Arkhangheljsk (1934). **a - 1665**

Note contenant quelques considérations du Prof. N. N. Zoubov, du Prof. M. I. Soumtchak et de l'Acad. A. I. Vernadskij sur la hausse générale de la température observée au cours des dernières années dans le secteur européen de l'Arctique.

**An.** - Der Seeobsdienst im Januar, Februar, März und April 1935 [*Officium observationum maritimarum, mensibus Januario, Februario, Martio, Aprili 1935*]. 2 Tab. Seewart, IV, 3, 123-124. Hamburg (1935). **a - 1666**

Statistische Angaben.

**An.** - Südoststurm bei Rio Grande do Sul im September [*De vento orcano sudoccidentali apud* Rio Grande do Sul *mense Septembri*]. Seewart, IV, 3, 124-125. Hamburg (1935). **a - 1667**

Der Verlauf des Sturmes, mit einer beigefügten Anmerkung der Schriftleitung des « Seewart » über die geographische Lage von Rio Grande do Sul und die allgemeinen meteorologischen Bedingungen in dieser Gegend mit besonderer Berücksichtigung der Häufigkeit der Stürme.

**An.** - Sonnenflecke und Witterung [*Solis maculae et tempestates*]. Seewart, V, 5, 157-159. Hamburg (1936). **a - 1668**

Bericht über die während einer Reise von Singapore nach Stettin in der Zeit vom 22. März bis 15. April 1936 gemachten Sonnenfleckenbeobachtungen. Fünf Haupttypen der Fleckengebilde sind unterschieden worden. Bewegung und Lebensdauer der Flecke, ihr Zusammenhang mit Naturerscheinungen.

## Glacies marina.

**Alexeev A. D.** - Les avions dans la reconnaissance des conditions des glaces [*De aëroplanis pro glaciei condicionibus inspiciendis*]. (En russe). Za Osvojenije Arkt., 145-152. Leningrad (1935). **a - 1669**

**Arnoljd - Alabjev V. I.** - Scientific Investigations on Board the Ice-breaking Steamer « Malyghin », During the Summer of 1934 [*Investigationes scientificae in navi glaciei ruptrici* « Malyghin », *aestate 1934*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 5/6, 145-146, 176-177. Leningrad (1935). **a - 1670**

Account of the investigations carried out during the summer 1934 in the Kara Sea in order to study the properties of the ice, with special reference to the external friction of the ice against the vessel steel, the breaking and melting points of the ice, the determination of the crystallographic properties of the ice and the specific gravity of melted ice.

**Arnoljd-Alabjev V. I.** - Sur la question du chimisme de la glace du Golfe de Finlande par rapport à l'étude de sa solidité [*De glaciei chemismo in Sinu Finlandiae pro eius duritie*]. (En russe). Izv. Inst. Fis.-Khim. Analisa (Bull. Inst. Analyse Physico-Chim.), VI, 229-233. Leningrad (1933). **a - 1671**

**Arnoljd-Alabjev V. I.** - Méthodes de détermination de la compacité et de la porosité de la glace dans les conditions des expéditions [*De glaciei crassitudine et permeabilitate determinandis, expeditionibus perdurantibus*]. (En russe). Trudy Komm. Izutsch. Vetsch. Merzl. (Trav. Comm. Etude Congél. Permanente), Ed. Acad. Sc. U. R. S. S., III, 127-150. Leningrad (1934). **a - 1672**

**Bassine M. M.** - Sur le problème de la comparaison technique et économique des moyens de lutte contre la pression statique de la couche de glace sur les constructions [*Agitur de pressione statica glaciei in constructiones*]. (En russe). Izv. Nautchno-Issl. Inst. Ghidrot. (Bull. Inst. Rech. Scient. Hydrot.). Energoizd., XI, 211-215. Leningrad (1934). **a - 1673**

**Batchmanov B. M.** - Les formes sphériques des glaces [*Glaciei formae sphaericae*]. (En russe). 1 fig. Zap. po Ghidrol., 1, 85-86. Leningrad (1933). **a - 1674**

**Blinov L. K.** - On the Chemical Nature of Sea-Ice [*De natura chemica glaciei marinae*]. (In Russ., Engl. Summ.). 4 figs., 7 tables. Bull. State Oceanogr. Inst., U. S. S. R., 18, 1-26. Moskva (1934). **a - 1675**

Account of observations carried out on board the « Persey » in the Barents Sea in 1929-30 in order to determine the salt content as well as the mechanical properties of the sea-ice. The different stages of development of the young ice and those of the one-year old ice have been investigated, with especial reference to the so-called pancake-ice and the homogeneous crusty ice. Both these varieties of ice have been studied from the standpoint of their content in ice and their solidity. The chemical composition of the ice has been determined together with the factors it depends on, i. e. the temperature, at which the ice is formed, the velocity of its formation and the structure of the ice. The data illustrating the solidity of the ice are not numerous enough to allow to draw definite conclusions.

**Blüthgen J.** - Die Eisverhältnisse des Bottnischen Meerbusens [*Glaciei condiciones Sinus Bothnici*]. 7 Taf. a. T. Aus. d. Arch. Dtsch. Seew., LV, 3, 1-62. Hamburg (1936). **a - 1676**

Die meteorologischen und hydrographischen Grundlagen der Eisverhältnisse. Die Eisverhältnisse: die Eisnomenklatur, die Eisverhältnisse von 27 Stationen, die Eiswahrscheinlichkeit der finnischen und schwedischen Stationen, die Eisgebiete des Bottnischen Meerbusens, die mittlere Dauer der Vereisung im Bottnischen Meerbusen. Der Einfluss des Eises auf das Klima. Bemerkungen zur Frage der periodischen Wiederkehr strenger und milder Winter und deren Bedingungen.

**Brown E.** - Ice Breakers. [*Naves glaciei ruptrices*]. U. S. Nav. Inst. Proc., LXI, 6 (388), 855-858. Annapolis, Md. (1935). **a - 1677**

Brief note showing that the first modern ice-breaker constructed was not the « Ermak » built in 1898 by the Russian Government, but the « St. Ignace » put in service in 1888 in the United States as a ferry on the Straits of Mackinac separating the northern and southern peninsula of Michigan.

**Bydine F. I.** - Essai d'une prévision à long terme de la congélation des bassins aquatiques de l'URSS pendant l'hiver 1934-35 [*De prognosi, maximo temporis spatio, quoad gelum bacinorum aquaticorum Russicorum hieme 1934-35*]. (En russe). Izv. Gos. Ghidrol. Inst., 66, 52-62. Leningrad (1934). **a - 1678**

**Bykov V. A.** - Liste des dernières publications sur les formations glaciaires [*Elenchus novissimorum scriptorum de glaciei formationibus*].

(En russe). Izv. Gos. Ghéogr. Obstsch. (Bull. Soc. Géogr. Etat), LXVII, 5, 636-653. Leningrad-Moskva (1935). **a - 1679**

**Davidenkov N. N.** - Sur la question de l'organisation d'expériences pour la mesure de la pression de la glace [*Ratio studiorum experimentalium circa glaciei pressionis mensuram*]. (En russe). 1 fig. Sborn. Ledotekhn., Trudy Nautschno-Issl. Inst. Ghidrotekhn. (Trav. Inst. Rech. Scient. Hydrotechn.), 1, 175-176. Leningrad-Moskva (1933). **a - 1680**

**Didenko D. V.** - Work of the Bureau of Ice-Technics of the Arctic Institute [*De operibus peractis ab Officio Technico pro Glacie ad Institutum Arcticum pertinente*]. (In Russ., Engl.). Bull. Arct. Inst., V, 7, 192-193, 226. Leningrad (1935). **a - 1681**

Scopes and aims of the Bureau of Ice-Technics founded in March 1935 which will organize scientific research connected with the navigation of the ice-breaker fleet in the Arctic, study the ice and the ice-cover of the Arctic, and the blasting technique as a means to combat the ice.

**Dobrowolski A. B.** - Sur les théories relatives au processus de la congélation des eaux, et, en particulier, à celui de la formation de la glace de courant, et de la glace de fond [*De rationibus quoad gelum aquarum. Agitur particulatim de glacie in currentiis deque glacie in fundo*]. (En franç., rés. en pol.). Bull. Soc. Géophys. de Varsovie, 11/12, 20/24. Varsovie (1935). **a - 1682**

**Drigo F. I.** - Construction de la flotte des brise-glace [*De aedificanda classe navium glaciei ruptricium*]. (En russe). 2 tabl. Sov. Arkt., 2, 3-10. Leningrad (1935). **a - 1683**

**Evghenov N.** - Ice-Buoys Cast in 1934 from Board the Ice-Breaker « Krassin » into the Chukchee Sea and the Eastern Portion of the East-Siberian Sea [*De signis fluctuantibus a navi* « Krassin » *iactis in mare* Tciukci *et mare Sibiricum orientale a. 1934*]. (In Russ. & Engl.). 1 tabl. Bull. Arct. Inst., V, 3/4, 93 & 121. Leningrad (1935). **a - 1684**

Account of casting of 23 ice-buoys during the navigation-season 1934; the localities where the buoys were cast are given in a table.

**Evghenov N. I. & Gaken N. N.** - Utilisation de la coloration de la glace dans les buts nautiques [*De utenda glaciei coloratione pro navigatione*]. (En russe, rés. angl.). Sev. Morsk. Poutj (Rec. Art. Hydrogr. & Navig.), I, 75-78. Leningrad (1934). **a - 1685**

**Forstinger R.** - Die Eisverhältnisse der Südpolargebiete [*De glaciei condicionibus in regionibus meridionalibus*]. 4 Tab., 1 Abb. Ann. d. Hydrogr. LXIV, 7, 294-304. Berlin (1936). **a - 1686**

1. Das Klima des sechsten Erdteils. 2. Der Einfluss ausgedehnter Schnee- und Eisflächen. I. Die antarktischen Eisarten. II. Das Inlandeis. III. Das Schelfeis. IV. Das Treibeis: Eisberge, Meereis. V. Die Antarktis zur Eiszeit. Anhang. 1. Die Geschichte der Südpolarforschung. 2. Der Anteil einzelner Staaten an der Erforschung. Bibl.

**Gain M. L.** - Les glaces flottantes [*Glacies fluctuans*]. 2 pl. Météorol., N. S. 126, 400-415. Soc. Météorol. Paris (1935). **a - 1687**

Glaces de mer (banquises) et d'eau douce (icebergs). Code destiné à la transmission des observations de glace.

**Ganzhinov S. J.** - Conditions des glaces dans la Mer de Kara d'après les observations de l'expédition du « Sadko » en été 1934 [*De glaciei condicionibus maris Karensis ex observationibus peractis, expeditione navis* « Sadko » *perdurante, aestate 1934*]. (En russe). « Sadko » pod Sov. Flag. (« Sadko » sous Band. Sov.), 73-110. Ed. Glavsevmorputj. Leningrad (1935). **a - 1688**

**Georgi J. & Kopp W.** - Die Eismittestation, I. Teil. - Die Oststation [*De stationibus in glacie aedificatis. Pars I. Statio orientalis*]. Abb., Kart. viii-559 S., Wiss. Ergebn. Dtsch. Grönland-Exped. Alfr. Wegener 1929 und 1930-31. IV Bd., F. A. Brockhaus. Leipzig (1935).

( — ) Engl. Ed.: Mid-Ice: the Story of the Wegener Expedition to Greenland, transl. by F. H. Lyon, rev. and suppl. by A. Kegan Paul & Co. Ltd. London. **a - 1689**

Endgültige Berichte über die Alfred Wegener Expedition nach Grönland im Jahre 1930–1931, deren hauptsächliches Ziel ein meteorologisches gewesen ist, mit besonderer Berücksichtigung (a) der Wintertemperaturen in dem kalten Zenter des grönländischen Antizyklons, (b) der verschiedenen an die Hypersaturation des Eises gebundenen Probleme, (c) der Zyklonwanderungen über dem Inneneise und ihrer Struktur, (d) der Strahlungen und der optischen Luftmessungen und (e) der vertikalen Struktur des glazialen Antizyklons durch die Determination der Temperatur- und Windverteilung über der Station, welche zusammen mit den an der westlichen und östlichen Station ausgeführten Beobachtungen ein « aerologisches Profil des glazialen Antizyklons » liefern können.

**Gomojunov K.** - Under the Supervision of . . . . . Data About Ice-Conditions at the Shores of the Soviet Arctic (Winter-Season of 1933-34) [*De glaciei condicionibus in Arctide Sovietica (Hieme 1933-34) Data*]. (In Russ. Engl. Summ.). 77 figs., 8 tabl., 1 table o. t. Trans. Arct. Inst., XLV, 7-56. Leningrad (1936). **a - 1690**

General table summarizing the separate moments characterizing the navigability of the ice-fields, a description of the formation and disappearance of the ice and of related phenomena, schemes graphically illustrating the different characteristics of the ice-conditions in the single localities.

**Goubine F. F.** - La percussion des glaces contre les constructions (Méthode du Prof. Stschapov) [*Glacierum percussio in constructiones (Methodus professoris* Stschapov)]. (En russe). Ghidrotekhn. Stroit. (Constr. Hydrotechn.), 2, 26-28. Moskva (1933). **a - 1691**

**Grigorjev B. F.** - Sur la question de l'influence des conditions antérieures des éléments météorologiques sur les conditions des glaces dans la partie nord de la Mer de Kara dans la zone Enissej-Cap Tchéljouskine [*De meteorologicis condicionibus earumque effectu in glacies regionis nordicae Maris Karensis in zona* Enissej - Cap Tcheljouskine]. (En russe). Issl. Morej URSS (Explor. Mers URSS), XXI, Ed. Inst. Hydrol. Etat. Léningrad (1934). **a - 1692**

**Kalitin N. N.** - L'étude du régime de radiation dans la région polaire [*De radiatione regionum polarium*]. (En russe, rés. franç.). 5 tabl. Arctica, II, 25-37. Leningrad (1934). **a - 1693**

En faisant observer que les travaux des dernières années démontrent que l'influence immédiate de l'énergie irradiée sur la glace et sur la neige est parfois considérable, l'A. affirme qu'il est nécessaire d'organiser des mensurations actinométriques aussi dans les régions polaires, parce qu'ils pourront fournir un matériel très intéressant et très important pour la lutte contre la glace pendant la navigation.

**Koch H.** - Die Eisverhältnisse in der Botten Wiek und Botten See [*Glaciei condiciones Sinus Bothnici et Maris Bothnici*]. 2 Karten. Seewart V, 8/9, 256-261. Hamburg (1936). **a - 1694**

Die Vereisung der offenen See. Eis bei normalem Hochwinter. Der Aufbruch des Eises im Frühjahr. Die Schiffahrtsverhältnisse im Winter. Der Einfluss des Windes. Eisverschiebung und Eispressung.

**Laktionov A.** - Ice-buoys Cast from Board the Ice-Breaking Cargo Steamer « Sedov » into the Kara Sea [*De signis fluctuantibus a navi mercatoria et glaciei ruptrici* « Sedov » *iactis in Mare Karense*]. (In Engl. & Russ.). 1 tabl. Bull. Arct. Inst., V, 3/4, 91-92, 121. Leningrad (1935). **a - 1695**

Brief account of the casting of 192 ice-buoys during the work of the expedition of the s/s « Sedov », illustrated by a table, in which the localities are indicated, where the buoys were cast.

**Laktionov A.** - Voyage of the S/S « Leningradsoviet » [*De navigatione navis* « Leningradsoviet »]. (In Russ. & Engl.). Bull. Arct. Inst., V, 5/6, 147 & 175. Leningrad (1935). **a - 1696**

Brief account of the voyage of the steamer « Leningradsoviet » to the Franz-Joseph Archipelago from July 29th to September 11th 1934, with especial regard to ice-conditions encountered by the vessel on its route.

**Laktionov A.** - Eisverhältnisse im Barents-Meere und im nördlichen Teile des Karischen Meeres nach den Beobachtungen des Dampfers « Lomonossow » 1931, [*Glaciei condiciones in Mari Barentio et in regione septentrionali Maris Karensis ex observationibus peractis a navi* « Lomonossow », *1931*]. (In Russ. m. Dtsch. Titeln). 3 Fig. Scient. Res. Exp. « Lomonossow », 1931, Trans. Arct. Inst., XVIII, 85-90. Leningrad (1935). **a - 1697**

Bericht über die Eisverhältnisse auf der Reise von Novaja Zemlja zu Franz-Joseph Land hin und zurück vom 31. Juli bis zum 11. September 1931.

**Mariolopoulos E. C.** - La congélation de la mer dans le golfe de Thessalonique [*De maris gelu in Sinu Thessalonicae*]. Πρακτικὰ τῆς Ἀκαδημίας Ἀθηνῶν, VIII, 234-238. Athènes (1933). **a - 1698**

La congélation est due à la fable salinité dans ce golfe (11,93 %).

**Matzejno A. I.** - Observations faites sur des stations et au cours d'excursions sur la couche de glace du Golfe de Finlande [*Stratus glaciatus in Sinu Finlandico. Observationes peractae a stationibus, atque etiam ab expeditionibus*]. (En russe). Rapp. IV^e^ Confér. Hydrol. Pays Baltiques, Ed. Inst. Hydrol. Etat, 1-10. Léningrad (1933). **a - 1699**

**Oellrich H.** - Die Eisverhältnisse des Winters 1934/35 in den ausserdeutschen europäischen Gewässern [*Glaciei condiciones hieme 1934/35 in aquis europaeis extragermanicis*]. 4 Tab., 1 Tabelltaf. a. T. Ann. d. Hydrogr., LXIII, 11, 439-441. Berlin (1935). **a - 1700**

Die vorliegende Uebersicht ist eine Fortsetzung der seit 1905 (Winter 1903/04) in derselben Zeitschrift alljährlich veröffentlichten Zusammenstellungen, die grösstenteils dem von den ausländischen Anstalten übermittelten Material über die Eis- und Schiffahrtverhältnisse in Holland, Dänemark, Norwegen, Finnland, Estland und Russland entnommen worden sind.

**Oellrich H.** - Die Eisverhältnisse an den deutschen Küsten einschliesslich Danzig und Memel im Winter 1935-36. [*De glaciei condicionibus in litoribus Germanicis, Dantisco et* Memel *inclusis, hieme 1935/36*]. 3 Tab. Ann. d. Hydrogr. LXIV, 7, 310-313. Berlin (1936).
(—) Seewart V, 7, 214-217. Hamburg (1936). **a - 1701**

Tabellarische Zusammenfassung mit begleitendem Text über den Verlauf der Mitteltemperatur und ihre Abweichung vom langjährigen Mittel. Die Eisverhältnisse an der Nord- und Ostseeküste.

**Perov B.** - La glace du fond dans l'embouchure du fleuve Dnjepr et dans le liman (baie) Dnjeprovsko-Bougovskij [*De glacie in fundo jacenti in accessu fluminis* Dnjepr *et in baja* Dnjeprovsko-Bugovskij]. (En russe). Zap. po Ghidrol., 2, 97-98. Leningrad (1933). **a - 1702**

**Peskov N.** - Les hélices arrière des brise-glace puissants [*De helicis posterioribus in robustioribus navibus glaciei-ruptricibus*]. 3 fig. Vodn. Transp., 12, 17-18. Moskva (1934). **a - 1703**

**Rosenthal A. E.** - Le régime des glaces dans la partie Sud du golfe Ghydajamskij (Nydajamskij) pendant l'hiver 1931-1932 [*Glaciei regimen in regione meridionali Sinus* Ghydajamskij]. (En russe, rés. angl.). Sev. Morsk. Poutj (Rec. Art. Hydrogr. & Navig.), I, 18-32. Leningrad (1934). **a - 1704**

**Schandrikov N. P.** - Observations du point de vue constructif nautique à bord du brise-glace « Sadko » pendant l'expédition 1934 [*Observationes, ex arte nautica deductae, in navi glaciei ruptrici* « Sadko », *expeditione perdurante A. 1934*]. (En russe). « Sadko » pod Sov. Flag. (« Sadko » sous Band. Sov.), 151-206. Ed. Glav. sevmorputj, Leningrad (1935). **a - 1705**

**Smirnitskij J.** - New Suggestions relating to the Mechanization of Soundings from Ice in Winter [*Auxilia et consilia nova ad scandalia in glaciem hiemalem mechanica reddenda*]. (In Russ.). Hydrogr. Ber. 2. Leningrad (1935). **a - 1706**

**Soboleva A.** - Instruction pour l'observation des glaces sur les stations hydro-météorologiques côtières, sur les points d'observations des glaces et sur navires en navigation [*Praecepta ad observationes glacierum ducendas ad usum stationum hydro-meteorologicarum litorearum*]. (En russe). Graph. 55 pp., Ed. Com Météorol. Etat, Archangheljsk (1932). **a - 1707**

**Sverdrup H.** trad. autor. **Djakonov M. A.** préf. autor. par **Wiese W.** - Dans les glaces dans un sous-marin [*Navigatio per glacies in navi submergibili*]. (En russe). Ill., 1 fig. & 1 carte h. t. 139 pp. 4me Ed., « Molod. Gvardija ». Leningrad (1935). **a - 1708**

**Tchernogoubov N. G.** - Rapport technique sur les travaux explosifs dans les glaces de l'Arctique [*De operibus pro explosionibus in glacie arctica. Relatio technica*]. (En russe). « Sadko » pod Sov. Flag. (« Sadko » sous Band. Sov.), 207-232. Ed. Glav. sevmorputj. Leningrad (1935). **a - 1709**

**Vlodavetz V. I.** - Note on the Mineral Sediments Blown Into the Ice [*De sedimentis mineralibus a vento in glaciem iactis*]. (In Russ. Engl. Summ.). 5 figs., 5 tables. Trans. Arct. Inst., XXXIII, 79-85. Leningrad (1936). **a - 1710**

During the voyage of the S/S. « Sibirjakov » in 1932 brown-black ice has often been observed in the Laptev and Tschuktschee Seas; this colouring depends upon the occurrence of a sediment of mineral origin. Author believes this sediment to be of eolian origin and formulates some considerations to support his hypothesis.

**Vojejkov A. A.** - Perforatrice à vapeur pour la glace et son emploi [*Machina vaporalis perforatrix pro glacie*]. (En russe). Sev. Morsk. Putj, II, 101-106. Leningrad (1935). **a - 1711**

**Voronine V. I.** - Le rôle des brise-glace dans les navigations polaires [*Ratio navium glaciei ruptricium pro navigationibus ad polos*]. (En russe). Za Osvojenije Arkt., 89-102. Leningrad (1935). **a - 1712**

**Vring (v. d.) E.** - Die Eisschwierigkeiten in der Fahrt nach dem St. Lorenzstrom im Jahre 1935 [*Glaciei condiciones, perdurante navigatione ad currentiam S.cti Laurentii, A. 1935*]. 1 Taf. a. T., 2 Abb., Seewart, V, 8/9. 252-255. Hamburg (1936). **a - 1713**

Die Eisverhältnisse in der Schiffahrtszeit 1935 bei den Zugängen zum Golf von St. Lorenz im Frühjahr bei Kap Race und bis Ende Juli in der Belle-Isle-Strasse waren überaus ungünstig; gegen Schluss der Schiffahrt bis in den Dezember hinein gestalteten sich die Eisverhältnisse in der Belle–Isle-Strasse aber besonders günstig.

**Wiese W. J.** - Sur la dérive des glaces dans le bassin polaire [*Glaciei declinatio per bacinum polare*]. (En russe). 2 fig. Zap. Gos. Ghidrol. Inst. (Bull. Inst. Hydrol. Etat), X, 327-336. Leningrad (1933). **a - 1714**

**Wiese W. J.** - Die Eisverhältnisse im Nördlichen Eismeere im Sommer 1934 nach den Beobachtungen der « Lütke »-Expedition [*Glaciei condiciones maris Arctici, aestate 1934 ex observationibus ab expeditione* Lütke *peractis*]. (In Russ. Dtsch. Rés.). 2 Karten, Trans. Arct. Inst. XXIX, Scient. Res. Exped. Icebr. « Lütke », 1934, 40-46. Leningrad (1935). **a - 1715**

Bericht über die von dem Eisbrecher « Lütke » im Sommer 1934 auf der Fahrt durch das Tschuktsche Meer, Ostsiberische Meer, das Laptev-Meer, die Kara-See und die Bering-See beobachteten Eisverhältnisse, ergänzt durch einen Vergleich zwischen den vom Hydrologischen Institut zu Leningrad angegebenen Prognosen und den in der Tat beobachteten Eisverhältnissen.

**Zoubov N. N.** - Quelques considérations concernant la navigation dans les glaces du bassin Polaire [*Considerationes quaedam de navigatione inter glacies bacini polaris*]. (En russe). Zap. po Ghidrogr. (Bull. Hydrogr.), 2, 32-42. Leningrad (1933). **a - 1716**

**Zoubov N. N.** - Cas extraordinaire de la formation de glace [*De notanda quadam glaciei formatione*]. (En russe). Meteorol. Vestn., 10/12, 342. Leningrad (1934). **a - 1717**

**Zoubov N. N.** - Sur la question du mouvement des glaces sous l'influence du vent [*De glacierum motibus, ventorum causa*]. (En russe, rés. angl.). Sev. Morsk. Putj (Rec. Art. Hydrogr. & Navig.), I, 78-83. Leningrad (1934). **a - 1718**

**Zoubov N. N.** - Prévision sur les glaces pour le secteur soviétique de l'Arctique [*De glaciei formationibus providendis in Arctide Sovietica*]. (En russe). Sov. Arkt. 2, 21. Leningrad (1935). **a - 1719**

**British Meteorological Office** - Ice Chart of the Southern Hemisphere. January, February and March [*Glacierum tabula in haemisphaerio merid. Mensibus Januario, Februario, Martio*]. 1 chart. Mar. Obs. XIII, 121, Append., H. M. Stat. Off. London (1936). **a - 1720**

The coast line of the Antarctic continent as shown on this chart is not completely corrected to accord with the latest survey information. A later chart will be published after the Admiralty Ice Chart of the Southern Hemisphere n° 24 has been revised.

**Louegms** - Bulletin des glaces pour le Golfe de Finlande et la Baltique [*Glacierum Bulletinus pro Sinu Finlandico et mari Baltico, A. 1930-1931*]. (En russe). Edit. Labor. Géophys. Centr. Léningrad (1932-34). **a - 1721**

**Ministeriet for Søfart og Fiskeri** - Danske isforhold og dansk istjeneste [*Condiciones in Dania glacierum et officium ad glacies Danicas providendas*]. Is – og Besejlingsforholdene i de Danske farvande 1934-35, 11-12. København (1935). **a - 1722**

**K. A. G.** - Hydrological Work of the Arctic Station on Cape Zhlanija [*Opus hydrologicum peractum in Statione arctica Promunturii* Zhlanija]. (In Russ. & Engl.). Bull. Arct. Inst., V, 9, 286-287, 309. Leningrad (1935). **a - 1723**

Brief summary of the results of investigation on the mechanical, physical, and chemical properties of sea-ice.

**N. Tsch.** - Some Data on the Growth of the Ice at the Shores of Lonely (Oujedinenije) Island [*De glaciei accretione in ora maritima insulae* Ujedinenije]. (In Russ. & Engl.). 2 tables. Bull. Arct. Inst., V, 10, 315-316, 353-354. Leningrad (1935). **a - 1724**

Results of measurements made during winter 1934-1935 on the growth of the ice on Lonely Island (lat. 77° 30′24″ N., long. 82°12′12″ E.) and on the melting of it during summer. In the tables the data obtained on the thickness of the ice cover observed are reported.

**An.** - Probable Ice-Conditions in 1935 [*De probabilibus glaciei condicionibus A. 1935*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 3/4, 90, 91, 118. Leningrad (1935). **a - 1725**

Prognosis given the 23rd February, 1935, by the State Hydrological Institute of USSR for the following Arctic Seas during the navigation of 1935: 1) Greenland Sea, 2) Barents Sea, 3) Kara Sea, and 4) Chukchee Sea.

**An.** - Prognosis of Ice-Conditions in the Arctic Seas [*Prognosis condicionum glacierum in maribus arcticis*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 5/6, 150 & 179. Leningrad (1935). **a - 1726**

**An.** - Probable Ice-conditions in the Barents Sea [*De probabilibus glaciei condicionibus Maris* Barents]. (In Russ. & Engl.). Bull. Arct. Inst., V, 7, 205 & 230. Leningrad (1935). **a - 1727**

Third ice-prognosis communicated by the State Hydrological Institute of the USSR on May 25th, 1935.

**An.** - Icebergs dans le Nord-Est de l'Océan Atlantique [*De molibus glaciatis fluctuantibus per regionem nord-orientalem Oceani Atlantici*]. (En russe). Bull. Arct. Inst., V, 9, 292. Leningrad (1935). **a - 1728**

Information basée sur les rapports du U. S. Ice Patrol Service.

**An.** - Conditions des glaces sur le littoral de l'Alaska en 1934 [*De glaciei condicionibus in litoribus Alaskianis A. 1934*]. (En russe). Bull. Arct. Inst., V, 9, 292. Leningrad (1935). **a - 1729**

Résumé des conditions des glaces, dont il résulte que les glaces ont été repoussées vers le nord dans l'entier secteur Pacifique de l'Arctique.

**An.** - Flights of the Pilot N. V. Volossjuk [*De aëronavigationibus peractis a* N. V. Volossjuk]. (In Russ. & Engl.). Bull. Arct. Inst., V, 11, 398, 422. Leningrad (1935). **a - 1730**

Brief account of a flight effectuated in the Arctic for the reconnaissance of sea mammals and the ice conditions in the sea around Franz-Joseph Land and George Land.

**An.** - Laying of the Foundation of Two Powerful Ice-breakers [*De constructione initiali duarum navium glaciei ruptricium*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 11, 399, 421-422. Leningrad (1935). **a - 1731**

Information of the building of two powerful ice-breakers in the Baltic Ship Yard, « Joseph Stalin » and « Vjatscheslav Molotov », which will be both provided with hydro-biological and hydro-technical laboratories. Each ice-breaker will have on board two airplanes.

**An.** - Ice-Buoys Cast from the Ice-Breaking Cargo Steamer « Sedov » into the Kara Sea. — Flotteurs pour l'étude des glaces placés par le brise-glace « Sedov » dans la Mer de Kara [*Signa fluctuantia ad glacies studendas in Mari Karensi*]. (In Engl. & French). Int. Hydrogr. Bull., VI, 123. Monaco (1935). **a - 1732**

Extract from the « Bulletin of the Arctic Institute », n° 3/4, Leningrad, 1935, p. 121.

**An.** - Report on the Sea-Ice (Dec. 1935-Feb. 1936) [*Relatio de glacie marina*]. Journ. Oceanogr., VIII, 3, 405-408. Kobe (1936). **a - 1733**

**An.** - Southern Ice Reports during the Year 1935 [*Relationes de glacie australi, A. 1935*]. Mar. Obs., XIII, 121, 23-25. H. M. Stat. Off. London (1936). **a - 1734**

Reports of ice in January, February, and March 1935.

## Vis magnetica.

**Akiyosi T.** - Observation of the Magnetic Dip During the total Solar Eclipse of February 14, 1934 at Rosoppu Island [*De observata inclinatione magnetica, solis eclipsi totali perdurante, die 14 Februarii 1934 in insula* Rosoppu]. (In Jap.). Suiro Yôhô (Hydrogr. Bull). 14, 41-48. Tokyo (1935). **a - 1735**

**Barlow E. W.** - The Green Flash at Sunrise and Sunset [*De halone viridi, ortu et occasu*]. 2 figs. Mar. Obs., XIII, 122, 55-57. London (1936). **a - 1736**

After a brief account of the observations of the phenomenon of the green flash seen at sunrise and sunset and the relative rarety of it, author discusses the colour of the green flash, the conditions for seeing the green flash, the explanation of it, the green ray at the setting of planets and stars and the other phenomena at sunrise and sunset. He concludes remembering that the first observation of the green flash has been published in « Nature » in 1882.

**Bossolasco M.** - Risultati preliminari dei lavori eseguiti dalla stazione geofisica di Mogadiscio durante il secondo Anno Polare Internazionale 1932-33. Meteorologia ed aerologia [*Resultatus priores ex operibus peractis a Statione geophysica in Mogadiscio secundo anno polari internationali perdurante, 1932-33. Meteorologia et Aërologia*]. Boll. Comm. Geod. Geof. C. N. R. ser. 2, V, 2, 11 pp. Pavia (1935).

(—) V. anche T. G. G. I. Ass. Mét. Pr. – Verb. II, 301–304. Lisbona (1935). **a - 1737**

**Davies F. T.** - The Diurnal Variation of Magnetic Disturbance in High Latitudes, by J. M. Stagg. [*Variatio diurna perturbationum magneticarum, in alta latitudine*]. Terr. Magn. XL, 164. Baltimore Md (1935). **a - 1738**

**Davies F. T.** - The Diurnal Variation in Magnetic and Auroral Activity at Three High-Latitude Stations [*Variatio diurna activitatis magneticae et auroralis in tribus stationibus altae latitudinis*]. 9 figs. Terr. Magn. XL, 2, 173-182. Baltimore Md (1935). **a - 1739**

The stations are: The Byrd Antarctic Expedition Station at Little America, Antarctica, 1929-30; The United States Polar-Year Station at Barrow, Alaska 1932-33; and the Canadian Polar-Year Station at Chesterfield, Northwest Territory, Canada, 1932-33.

**Dijk** (van) **G.** - Measures of Terrestrial-Magnetic Activity [*Activitatis magneticae terrestris mensurationes*]. 3 tables. Terr. Magn. XL,4, 371-384. Baltimore, Md. (1935). **a - 1740**

Comment of Professor Bartels' paper Terrestrial-magnetic activity and its relation to solar phenomena (S.: Terr. Magn., XXXVII, 1-52, 1932, and XXXIX, 1-4, 1934), in which Prof. Bartels states, that a break in the homogeneity of the international character-figures in recent years is discovered and where it appears that by recent years especially the year 1930 is meant. Mr. van

Dijk presents evidence that the discrepancy between C (international character-number) and $u$ (or $u$ 1-measures of magnetic activity) especially for the year 1930, may not be due to a break in the homogeneity of C, and stresses the usefulness of the international character–figure C as a measure of magnetic activity not only for intervals of days and weeks, but also for months and years. The paper is followed by « Remarks on Doctor Van Dijk's Paper » by J. Bartels and by a Note of « The Magnetic Character of the Year 1934 and the Numerical Magnetic Character of Days 1934 » (2 tables), by J. van Dijk.

**Eickelberg E. W.** - Need for More Detailed Magnetic Observations Shown by Increasing Application of Results [*Applicatio resultatuum deductorum ab observationibus magneticis necessarias reddit observationes particulariores*]. Nat. Res. Counc., Amer. Geoph. Un. Trans., 16th Ann. Meet., Apr. 25-26, 1935, I, 168-171. Washington D. C. (1935). **a - 1741**

Author emphasizes the importance of magnetic observations and gives some examples of their practical usefulness; their practical use indicates the need of a more detailed magnetic survey, which would add greatly to the purely scientific knowledge in furthering the studies of the Earth's magnetism which is so intimately connected with aurorae, earth-currents, sunspots, cosmic rays, and communication of the radio, telephone, and telegraph.

**Ennis C. C.** - Correlations of Auroral and Magnetic Activity at Little America, First Byrd Antarctic Expedition [*Correlationes inter activitatem magneticam et auroram australem in* Little America. *Prima expeditio Antarctica a* Byrd *peracta*]. 1 fig., 1 table, Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 165-166. Washington D. C. (1935). **a - 1742**

Purely statistical analysis made in order to contribute to the study of the possible relationship between the aurorae and magnetic disturbances. The A. states that the data obtained are not sufficient for definite and specific conclusions concerning auroral effects on the Earth's magnetism.

**Eropkin D. I.** - Spectrophotometry of the Aurorae Boreales on the Kirovsk Base of the Academy of Sciences during the Winter 1935 [*Spectrophotometria aurorarum borealium in statione* Kirovsk *ad Academiam Scientiarum pertinente, hieme 1935*]. (In Russ.). 1 table, Bull. Arct. Inst., V, 8, 251-252. Leningrad (1935). **a - 1743**

Brief account of the organization, the equipment, personnel and work made by the expedition sent out by the Arctic Institute of the USSR.

**Evghenov N. I.** - Sur la question de la nécessité de l'étude tant du magnétisme terrestre que du comportement de la boussole magnétique sur le navire dans le Bassin Polaire [*De magnetismo terrestri deque ratione buxidae magneticae in navi, per bacinum polare naviganti. Studiorum necessitas*]. (En russe, rés. angl.). Sev. Morsk. Putj (Rec. Art. Hydrogr. & Navig.), I, 57-68. Leningrad (1934). **a - 1744**

**Fedorov E. K.** - Magnetic Determinations Carried Out on Franz-Joseph Land in 1932-33 [*Determinationes magneticae peractae in Terra Francisci Josephi, A. 1932-33*]. (In Russ. Engl. Summ.). 4 figs., 1 table. Arctica, III, 89-106. Leningrad (1935). **a - 1745**

Results of magnetic determinations carried out during the wintering of the party at the Polar Station in Calm Bay (Tikhaja) in the region of the Franz-Joseph Archipelago along the route: Hooker Island, Alger Island, Hayes Isl., Komsomol Isl., Cape Heller (Vilczek Land), Cape Hann (Vilczek Land), Hofmann Islands, Rainer Isl., Octobriat Isl., Rudolf Isl. The comparison between the determinations obtained and those of previous years supply the value of the secular change of the terrestrial magnetism in the region investigated.

**Fleming J. A.** - Terrestrial Magnetism and Electricity [*De magnetismo terrestri et electricitate*]. American Year Book for 1934, 736-743. New York (1935). **a - 1746**

**Fleming J. A.** - Magnetic and Electric Investigations of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington, April 1934 to March 1935 [*Investigationes magneticae et electricae peractae a Sectione pro Magnetismo ad* « Carnegie Institution » Washington *pertinente. 1935. A mense Aprili, 1934 ad Martium 1935*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 195-197. Washington D. C. (1935).

(—) See also Year Book No. 34. Washington (1935) and Terr. Magn. XL, 385-392. Baltimore Md. (1935). **a - 1747**

(1) Reduction and study of observational material already gathered; (2) development of methods and technique to obtain continuous records of the electrical conditions and their variation in the ionosphere; (3) continued attack in the laboratory on basic phenomena of magnetism through experimental work in nuclear physics; (4) maintenance of field operations to preserve continuity of secular-variation material. Papers published, 1934-1935.

**Fleming J. A.** - The Distribution and Need of Additional Magnetic Observatories and Secular-Variation Stations in the Pacific Region [*De necessitate atque distributione observatoriorum magneticorum in regione Oceani Pacifici pro variatione saeculari*]. Proc. Fifth Pacific Sc. Congr. Victoria and Vancouver B. C. Canada 1933, III, 1675-1683. Toronto & London (1934). **a - 1748**

**Fleming J. A.** - The Relations of Magnetic and Electric Work in the Pacific Ocean to the Polar-Year Campaign, 1932-33. [*Relationes de peractis operibus magneticis et electricis in Oceano Pacifico, pro A. 1932-33*]. Proc. Fifth Pacific Sc. Congr., Victoria and Vancouver, B. C. Canada, 1933 III, 1685-1690. Toronto & London (1934). **a - 1749**

**Fleming J. A.** - Continuation of the Oceanic Magnetic Survey of the Carnegie Institution of Washington by the British Admiralty [*Britannica Praefectura Classis continuat munera magnetica oceanica Institutionis* Carnegie *in* Washington]. 1 fig. Terr. Magn., XL, 2, 147-150. Baltimore (1935). **a - 1750**

On the necessity of the construction of a new special ship for magnetic survey to replace the « Carnegie » lost at Apia (Samoa). November 29, 1929. The British Admiralty has decided this construction. The ship will probably be a little larger than the « Carnegie ».

**Freiman L. S.** - Expériences de sondages acoustiques de la stratosphère dans l'Arctique au cours de la II-ème Année Polaire Internationale [*De scandaliis acusticis stratosphaericis in Arctide, secundo anno polari internationali perdurante*]. 1 tabl. Troudy Vses. Konfer. Izoutch.

Stratosf. (Trav. Confér. Panun. Etude Stratosphère), 31 mars-6 avr. 1934, Edit. Acad. Sc., URSS, 139-144. Leningrad–Moskva (1935). a - 1751

**Gallo J.** - Report of the Magnetic Work at the Astronomical Observatory of Tacubaya During the Year 1934[ *Relatio de operibus magneticis peractis ab Observatorio Astronomico*, Tacubaya, *A. 1934*]. 3 tables. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 189-191. Washington D. C. (1935). a - 1752

Brief summary of the work of the Magnetic Station of Teoloyucan, 36 km. north of Mexico City, completed by the tabulation of all the data obtained from magnetograms.

**Glover P. W.** - Magnetic secular--Variation at Apia, Samoa 1905-1929 [*Variatio magnetica saecularis in* Apia Samoa]. Terr. Magn. XL, 61-70. Baltimore (1935). a - 1753

**Green J. W.** - Magnetic Secular-Variation in the Pacific Region [*Variatio magnetica saecularis in Oceano Pacifico*]. Proc. Fifth Pacific Sc. Congr. III, 1669-1674. Victoria and Vancouver. Toronto & London (1934). a - 1754

**Greenlee H. R.** - Researches Related to Terrestrial Magnetism and Electricity of the United States Naval Research Laboratory [*Investigationes de magnetismo terrestri et electricitate peractae a Laboratorio pro Investigationibus nauticis ad Americae Status Foederatos pertinente*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 193. Washington D. C. (1935). a - 1755

Brief account of the equipment developed to record automatically the directions of radio static, and the works on a quantitative theory of electricity of rain and thunderstorms, and the ionisation of the upper atmosphere.

**Harradon H. D.** - List of Publications of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington 1934 [*Index scriptorum editorum ab* D. of T. M. of C. Inst. W]. Carnegie Inst. Wash. 8 pp. Washington (1934). a - 1756

**Harradon H. D.** - List of recent Publications [*Index scriptorum novissimorum*]. Terr. Magn. XXXIX, 255-264 (Sept. 1934) and 320, 324, 332, 350 (Dec. 1934): XL, 124-128 (Mar. 1935) and 227-234 (June 1935). Baltimore (1934–35). a - 1757

**Hasegawa M.** - On the type of the Diurnal Variation of the Terrestrial Magnetism on Quiet Days [*De variatione diurna magnetismi terrestris diebus tranquillis*]. 3 figs., Proc. Imp. Acad. XII, 4, 88-90. Tokyo (1936). a - 1758

**Hazard D. L.** - Results of Observations Made at the United States Coast and Geodetic Survey Magnetic Observatory at Sitka, Alaska in 1927 and 1928 [*Resultatus ex observationibus peractis in Laboratorio* Sitka, *in Alaska ad* Coast and Geodetic Survey *pertinente A. 1927 et 28*]. 14 figs., num. tables. U. S. Dpt. Comm., Coast & Geod. Surv., 1-121. Washington D. C. (1935). a - 1759

Instruments. Constants of magnetograph. Absolute observations and base-line values. Diurnal variation. Summary of monthly and annual means. Hourly values of declination, horizontal intensity, and vertical intensity, 1927 and 1928. Magnetic storms. The 14 figures are reproductions of magnetograms showing the principal magnetic disturbances.

**Hubert** - Travaux de restitution relatifs aux aurores polaires [*De operibus restitutionis quoad auroras boreales*]. Journ. Phys. & le Radium, 5, 99-101. Paris (1934). a - 1760

Construction des dispositifs et des appareils de mensuration construits en vue des travaux de la IIme Année Polaire Internationale et du résultat de la vérification de leur fonctionnement.

**Koenuma K.** - Some Problems of Waves Propagation in the Atmosphere [*De propagatione undarum in atmosphaeram*]. (In Engl. Jap. Summ.). 3 figs., 6 tables. Mem. Imp. Mar. Observ., VI, 2, 175-212. Kobe, Jap. (1935). a - 1761

Propagation of waves in the atmosphere of uniform lapse rate. Waves on the surface of discontinuity (a few special cases). The results allow to distinguish the general tendency of the properties of the waves considered.

**Kuwahara S.** - Weekly Magnetic Observation at Zinsen, Taihoku, Otomari and Palau during 1932 [*Observatio magnetica hebdomadalis in* Zinsen, Taihoku, Otomari *et* Palau *A. 1932*]. (In Jap.). 5 figs. Suiro Yôhô (Hydrogr. Bull.), 1-5. Tokyo (1934). a -1762

Annual mean values of magnetic elements at the four meteorological observatories from the beginning of the measurements at each station up to 1932 are given, and assuming the changes of those values as quadratic with time, some empirical formulae are deduced.

**Lappo S. D.** - Sur la déclinaison magnétique dans la Mer de Laptev [*De maris* Laptev *declinatione magnetica*]. (En russe). Journ. Ghéoph., V, 3, 380-383. Moscou-Léningrad (1935). a - 1763

**Laursen V.** - The Warsaw Meeting of the Commission of Terrestrial Magnetism and Atmospheric Electricity, September, 1935 [*Consessus Varsoviae habitus. Mense Septembri 1935*]. Terr. Magn., XL, 4, 407-411. Baltimore, Md. (1935). a - 1764

Brief account of the work of the Meeting opened on September 2nd, 1935 and text of the resolutions presented to the Conference of Directors for final adoption or approval.

**McGregor C. J.** - Auroral Observations at Point Barrow, Alaska, During the International Polar Year [*De observata aurora polari in* Point Barrow (*Alaska*) *Anno polari internationali perdurante*]. 8 figs. Nat. Res. Counc., Amer. Geoph. Un. Trans., 16th Ann. Meet., Apr. 25-26, 1935, I, 147-151. Washington D. C. (1935). a - 1765

After a few introductory words upon the significance of auroral observations, author communicates the program of observations for the Polar Year et Point Barrow, which has been followed by him, describes the auroral camera and gives a short account of the results obtained.

**McNish A. G.** - Secular Change in the Magnetic Solar-Diurnal Variations at the Huancayo Magnetic Observatory [*Mutatio secularis in varia-*

*tionibus magneticis diurnis in observatorio magnetico in* Huancayo]. 5 figs. Terr. Magn., XL, 2, 151-158. Baltimore, Md. (1935). **a - 1766**

A complete change of the character of the solar-diurnal variations of vertical magnetic intensity observed during the past sunspot-cycle is described. Detailed features discussed.

**Moltchanov P. A.** - Conceptions actuelles de la structure de la stratosphère [*De structura stratosphaerae. Conceptiones hodiernae*]. (En russe). 13 fig. Troudy Vses. Konfer. Izoutch. Stratosf. (Trav. Confér. Panun. Etude Stratosphère), 31 mars-6 avr. 1934, Edit. Acad. Sc. URSS, 11-38. Leningrad-Moskva. (1935). **a - 1767**

Contient aussi des données sur les résultats de l'exploration de la stratosphère dans les régions polaires, ainsi que le compte rendu de l'élaboration préliminaire des résultats des montées de radio-sondes effectuées sur la Terre de François-Joseph en 1933.

**Nippoldt A.** - Die Magnetisierung der Erde unter den Ozeanen [*De Orbis magnetisatione sub oceanis*]. (Dtsch., Engl. Rés.). 1 fig. Terr. Magn., XL, 2, 129-138. Baltimore, Md. (1935). **a - 1768**

Description of a method of computation of magnetic observations, in ocean areas, made by the Carnegie Institution of Washington. The results of the study are exhibited in a map for the epoch 1922 showing the lines of equal inhomogeneous magnetisation of the Earth.

**Parkes C. E.** - Abnormal Magnetic Variation: Jurien Bay, Western Australia - Anomalies de la déclinaison magnétique: Jurien Bay, Australie Occidentale [*De abnormitatibus declinationis magneticae:* Jurien Bay *in Australia Occid.*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 90. Monaco (1935). **a - 1769**

Extracted from « The Marine Observer », London, July 1935, p. 96. See also Admiralty Notice to Mariners nº 44/1865 of November 3rd 1934. Description of a most abnormal magnetic disturbance experienced in the vicinity of Escape Island on August 22nd, 1934.

**Parkinson W. C.** - Problems of Terrestrial Electricity Which Future Observations in the Pacific Region Will Help to Solve [*De problematis quoad electricitatem terrestrem quae solvi poterint per futuras observationes Oceani Pacifici*]. Proc. Fifth Pacific Sc. Congr. III, 1845-1852 (1933). Victoria and Vancouver. Toronto & London (1934). **a - 1770**

**Patton R. S.** - Magnetic Work of the United States Coast and Geodetic Survey, April 1934 to March 1935 [*De operibus magneticis peractis a* Coast and Geodetic Survey, *a mense Aprili 1934 ad Martium 1935*]. Nat. Res. Counc. Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, 192-193. Washington D. C. (1935). **a - 1771**

**Peters W. J.** - Present Status of the Investigation on Dynamic and Tilting Deviations in the Department of Terrestrial Magnetism, Carnegie Institution of Washington [*Investigationes in deviationem earumque hodiernae condiciones in* D. of T. M., C. Inst. Wash]. Terr. Magn. XXXIX, 203-207. Baltimore (1934). **a - 1772**

**Pouchkov N. V.** - Particularités du comportement des variationes magnétiques au cours des 24 heures dans les régions polaires [*Peculiaritates variationum magneticarum diurnarum in regionibus polaribus*]. (En russe). Klimat i Pogoda, 4, 25-30. Leningrad (1935). **a - 1773**

**Pouchkov N. V.** - Les couches supérieures de l'atmosphère et le magnétisme terrestre [*De stratis superioribus atmosphaerae deque magnetismo terrestri*]. (En russe). 6 fig. Troudy Vses. Konfer. Izoutch. Stratosf. (Trav. Confér. Panun. Etude Stratosphère), 31 mars-6 avr. 1934, Edit. Acad. Sc. URSS, 354-378. Leningrad-Moskva (1935). **a - 1774**

Perturbations magnétiques dans les différentes latitudes.

**Pouchkov N. V.** - Mitteilung über erdmagnetische und elektrische Arbeiten in der U. d. S. S. R. in den Jahren 1931-35 [*Communicatio de operibus quoad magnetismum terrestre et electricitatem in U. R. S. S., A. 1931-35*]. 1 Abb. Terr. Magn., XL, 4, 393-399. Baltimore, Md. (1935). **a - 1775**

Bericht über das Netz der magnetischen Observatorien, der magnetischen Generalaufnahme und über die Erforschung auf dem Gebiete des sekulären Ganges, der täglichen Variationen und magnetischen Störungen, der methodisch-experimentellen Untersuchungen und des Apparatenbaues, der mathematischen Untersuchungen, der Luftelektrizität, der Verbreitung der Radiowellen und der Ionosphäre, der Erdströme, der magnetischen und elektrischen Erscheinungen in der Sowjetarktis.

**Roman I. & Sermon Th. C.** - Some Magnetic Gradiometer Developments During 1934-35 [*De progressibus gradiometri magnetici A. 1934-35*]. 2 figs. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 181-188. Washington D. C. (1935). **a - 1776**

Improvements of an instrument, previously described for measuring the ratio of the magnetic intensity- components at two nearly-points.

**Roncali G.** - Sulle variazioni secolari del magnetismo terrestre [*De variationibus secularibus magnetismi terrestris*]. 3 fig. Mem. R. Uff. Centr. Meteorol. & Geofis. Serie III, V, 1-20. Roma (1935). **a - 1777**

Viene esaminato un gran numero di notizie relative alle variazioni dette nel titolo, allo scopo di tracciare un quadro generale delle nostre conoscenze nel campo magnetico terrestre del passato.

**Rooney W. J.** - Note Regarding Aurorae and Earth-currents [*De auroris et currentiis terrestribus*]. Terr. Magn. XXXIX, 241-242. Baltimore (1934). **a - 1778**

**Rooney W. J. & Sherman K. L.** - Earth-current Measurements at the College-Fairbanks Polar-year Station [*De currentiis telluricis dimensis in statione ad* College-Fairbanks *pertinente*]. Terr. Magn., XXXIX, 187-199. Baltimore (1934). **a - 1779**

**Rose N.** - Observations variométriques de la Station à Hornsund (Missions scientifiques pour la mesure d'un arc de méridien au Spitzberg entreprises en 1899-1900 sous les auspices des

Gouvernements Suédois et Russe. Mission russe de l'Académie des Sciences) [*Observationes variometricae in Statione* Hornsund]. (En russe & franç.). 4 fig., tabl., 6 tabl. h. t. Matér. Expl. Arct., 7, 4-53. Inst. Arct. URSS. Léningrad (1935). **a - 1780**

Les observations, reportées ici, ont été faites très scrupuleusement, mais pour de différentes raisons, elles n'ont pas encore été publiées. Elles se rapportent à la déclinaison, la composante verticale et horizontale, aux valeurs de repère adoptées, à la marche diurne des éléments géomagnétiques, aux écarts des moyennes mensuelles et à leur marche moyenne diurne exprimée par les déviations de la moyenne annuelle.

**Rose N.** - Der Zustand des Netzes der Magnetischen Observatorien der U. d. S. S. R. und weitere Perspective seiner Entwicklung [*De observatoriis magneticis in URSS. Proposita futura et rationes*]. 1 Tab. Terr. Magn., XL, 4, 401-406. Baltimore, Md. (1935). **a - 1781**

Kurzer Bericht über die ausgeführte Arbeit und Verzeichnis der Observationspunkte in der Union d. S.S.R. für Untersuchungen über die Elektrizität der Atmosphäre. Verzeichnis der veröffentlichten Arbeiten.

**Rothé J. P.** - Sur la variation diurne des éléments magnétiques au Scoresby Sund [*De diurna variatione elementorum magneticorum in* Scoresby Sound]. 5 figs. Terr. Magn., XL, 2, 165-171. Baltimore, Md. (1935). **a - 1782**

Résumé des observations dont la publication complète a été faite dans les Annales de l'Institut de Physique du Globe de Paris.

**Rothé J. P. & Dauvillier A.** - Année Polaire Internationale 1932-1933 - Participation française, Tome I [*Annus Polaris Internationalis 1932-1933 - Opus Francogallicum, Vol. I*]. 413 pp. Impr. Gauthier-Villars. Paris (1936). **a - 1783**

Magnétisme terrestre. Aurores polaires. Ozone atmosphérique. Rayons cosmiques.

**Russinova I. L.** - Magnetic Observations Taken by the Expedition of the « Sibirjakov », in 1932 [*Observationes magneticae peractae, expeditione perdurante navis* « Sibirjakov », *A. 1932*]. (In Russ. Engl. Summ.). 1 table. Trans. Arct. Inst., XXXIII, 75-78. Leningrad (1936). **a - 1784**

Brief account of the results of observations on magnetic declination and the horizontal component made at the following 4 points: Sverdrup Island, Tixy Bay, Ljakhov Island and Imatra Bay.

**Savornin A.** - Sur les possibilités de prospection magnétique à Madagascar [*De possibilibus proiectionibus magneticis in* Madagascar]. C. R. Acad. Sc., CCII, 10, 858-860. Paris (1936). **a - 1785**

Résumés des résultats intéressants qu'ont donnés les premières études magnétiques, auxquelles l'A. a procédé au Madagascar avec une balance verticale de Schmidt et qui permettent de se rendre compte des difficultés que rencontrent les prospections magnétiques dans la Grande Ile. L'A. indique aussi la méthode qu'il faut suivre pour ces prospections.

**Scholz J.** - Luftelektrische Messungen auf Franz-Joseph Land während des II. Internationalen Polarjahres 1932-33 [*De mensuris aëroelectricis in Terra Francisci Josephi secundo anno polari internationali perdurante 1932-33*]. (In Dtsch., Russ. Einl. v. Prof. R. L. Samoilowitsch u. russ. Rés.). 23 Fig., 18 Tab. a. T. Trans. Arct. Inst., XVI, 1-169. Leningrad (1935). **a - 1786**

Der vertikale Leitungsstrom, das Potentialgefälle mit der Wilsonapparatur, die Zahlen der positiven und negativen Kleinionen, die Leitfähigkeit und die Beweglichkeit dieser Ionen, die Leitfähigkeit der mittel- beweglichen Ionen mit den Ionenzählern, die Ionisierungsstärke und die Verschwindungskonstante der Kleinionen mit dem Ionisationsgefäss, die Intenistät der Höhenstrahlung mit dem Kohlhörsterapparat und die Kondensationskernzahl mit dem Kernzähler. Die bei den oben erwähnten Messungen erhaltenen Resultate sind in zwei Gruppen eingeteilt, von denen die eine sich auf die Arbeitsfähigkeit der mitgeführten Instrumente bezieht, während die zweite das Endergebnis der Untersuchung der atmosphärischen Verhältnisse darstellt.

**Skellett A. M.** - On the Correlation of Radio Transmission with Solar Phenomena [*De correlatione inter radiotransmissiones et phaenomena solis*]. 3 figs., 2 tables. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., April 25-26, 1935, I, 26-31. Washington D. C. (1935). **a - 1787**

On hand of record of short-wave radio transmission over the North Atlantic Ocean, of terrestrial-magnetic activity and earth-current activity author brings up the 27-day recurrence-tendency of those transmissions and shows its usefulness for predictions of the behaviour of the transmission. He discusses also the terrestrial-solar correlation and the radio-disturbances.

**Stewart R. M.** - Magnetic Work of the Dominion Observatory, Canada [*Opus magneticum pertinens ad* Dominion Observatory *in Canadensi regione*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 189. Washington D. C. (1935). **a - 1788**

Information on the completing of the program of observations to determine the secular change of the Earth's magnetism over that part of the Dominion of Canada, which has been covered by the survey.

**Svjatskij D. O.** - L'aurore boréale dans la littérature et dans la science russes depuis le X-ème au XVIII-ème siècle [*De aurora boreali pro litteratura atque scientia russica a sec. X° ad XVIII°*]. Trudy Inst. Ist. Nauki i Tekhn. (Trav. Inst. Hist. Sc. & Techn.), I, 4, 47-67. Acad. Sc. Leningrad (1934). **a - 1789**

**Visser S. W.** - Magnetical Anomalies in the Dutch East Indian Archipelago [*Abnormitates magneticae in archipelago Hollandico Indiae Orientalis*]. Charts. Proc. Kon. Akad. Wet., XXXVIII, 118-122. Amsterdam (1934). **a - 1790**

These observations are based on the investigations of Dr. Van Bemmelen of 1905.

**Wadsworth J.** - Atmospheric Electricity in Samoa [*De electricitate atmosphaerica in* Samoa]. Proc. Fifth Pacific Sc. Congr., III, 1691-1696 (1933). Victoria and Vancouver. Toronto & London (1934). **a - 1791**

**Wait G. R.** - Observations of Atmospheric Electricity at Kew Observatory, by F. J. Scrase [*Observationes de electricitate atmosphaerica in observatorio ad* Kew *pertinente*]. Terr. Magn., XXXIX, 251-252. Baltimore (1934). **a - 1792**

**Wait G. R.** - Atmospheric Potential-Gradient Observations at the Commonwealth Solar Observatory, Mount Stromlo, Canberra, by C. W. Allen [*De potentiali gradiente atmosphaerico*]. Terr. Magn., XXXIX, 298. Baltimore (1934). **a - 1793**

**Weinberg B. P. & Rogatchov I. M.** - Sur la question de la construction d'un observatoire magnétique flottant pour l'Arctique Soviétique [*De aedificando observatorio magnetico fluctuanti in Arctide Sovietica*]. (En russe, rés. angl.). Sev. Morsk. Poutj (Rec. Art. Hydrogr. & Navig.), I, 69-74. Leningrad (1934). **a - 1794**

**Weinberg B. P. & Weinberg K. B.** - The Period of Secular Variation of Magnetic Declination [*De variatione saeculari declinationis magneticae*]. (In Russ., Engl. Summ.). 3 tables. Bull. Acad. Sc. URSS, Cl. Sc. Mathém. & Nat., 6/7, 927-932. Leningrad (1935). **a - 1795**

The questions concerning the value of the period of secular variation of the declination and of its being the same or different for different regions have not yet received a definite solution. In this paper the authors make an attempt to revise these questions using newly collected data concerning ancient observations made in the USSR and in the Arctic, and applying methods of investigation different from those used in the past.

**Department of Terrestrial Magnetism** - Exhibit of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington. Daily Changes in the Compass Direction [*Variationes diurnae buxidae pro directione*]. Carnegie Inst., Exhibition Program for 1934, 25-28. Washington (1934). **a - 1796**

**Zi-Ka-Wei, Observatoire de** - Observations magnétiques faites aux deux stations: Lu-kia-pang, Zô-se. Tome XVIII. Années 1932-33 [*Observationes magneticae peractae in stationibus* Luy-kia-mang *et* Zô-se. *Vol. XVIII. A. 1932-33*]. Ill., 42 + 92 pp. Impr. Miss. Cathol. Zi-ka-wei Chang-hai (1935). **a - 1797**

Contient, entre autres, aussi la description du nouvel observatoire magnétique à Zô-se.

**Zi-Ka-Wei Observatoire de** - Observations magnétiques faites à la Station de Zô-sè. Tome XIX. Année 1934 [*Observationes magneticae peractae in Statione* Zô-sè. *Vol. XIX. A. 1934*]. 2 graph. 36 pp. Impr. Miss. Cathol., Zi-Ka-Wei, Chang-hai (1935). **a - 1798**

**Service Hydrographique Gusmp** - Carte des isogones de la Mer Polaire Septentrionale pour l'époque de l'an 1935 [*Tabula isogonica Maris Polaris Septentrionalis pro A. 1935*]. Edit. Serv. Hydrogr. Adm. Centr. Voie Marit. Nord. Leningrad (1934). **a - 1799**

**An.** - Nuevo buque amagnético inglés [*Navis non magnetica anglica*]. Ibérica, XLIII, 1070, 279. Barcelona (1935). **a - 1800**

Construcción de un buque amagnético ingles que continuará los trabajos del « Carnegie ».

**An.** - Magnetic Measurements - Mesures magnétiques [*De magneticis mensurationibus*]. In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 61. Monaco (1935). **a - 1801**

Information on a book edited by Professor L. Slaucītājs and sent to the International Hydrographic Bureau, containing a summary of all the material concerning magnetic observations made in Latvian territory, the data of which are scattered throughout a large number of publications.

**An.** - Magnetic Charts - Cartes magnétiques [*Tabulae magneticae*]. Int. Hydrogr. Bull. - Bull. Hydrogr. Int., IV, 94. Monaco (1935).

( — ) See: « Int. Hydrogr. Bull. », II, 1935, p. 43. **a - 1802**

List of a new series of magnetic charts published by the Hydrographic Office, Washington for the year 1935.

## Gravitas.

**Ballarin S.** - Effetto dell'ellissoidicità della terra nelle riduzioni delle misure di gravità [*De Terrae forma ellipsoidi eiusque effectu in reductionibus mensurarum gravitatis*]. Boll. Com. Geod. e Geof. C. N. R., ser. II, 2, 81-84. Milano (1935). **a - 1803**

Si mostra che è sempre trascurabile la correzione da portare alle formule di riduzione delle misure di gravità calcolate per la sfera, per tener conto della configurazione ellissoidale della Terra.

**Cassinis G.** - Questioni di gravimetria [*Quaestiones gravimetricae*]. (Estratto dai Rendiconti del Seminario Matematico e Fisico di Milano). Pubbl. Ist. Topogr. e Geod., 10, 43 pp. Milano (1935). **a - 1804**

Nella prima parte si espongono alcuni tra i progressi conseguiti nell'ultimo decennio nella determinazione dei valori dell'accelerazione della gravità e della direzione di questa, nonchè delle variazioni dei diversi elementi connessi con la gravità. Nella seconda parte viene accennato ai metodi per risolvere il problema fondamentale della geodesia e ai calcoli per la riduzione al geoide delle misure di gravità e delle deviazioni locali, con particolar riguardo alle teorie isostatiche. Si espongono infine i risultati fin qui ottenuti per l'Italia meridionale e mari adiacenti.

**Cassinis G.** - Relazione preliminare sulla seconda Crociera gravimetrica in sommergibile nel Mediterraneo [*Relatio prior de secunda navigatione gravimetrica in navi submergibili per Mare Mediterraneum*]. SIPS (Atti Soc. It. Prop. Sc.), II, 1, 48-50. Roma (1936). **a - 1805**

Sulla crociera del Somm. « De Geneys » per il completamento della rete del 1931. Le osservazioni eseguite. L'A. conta di poter dare dei risultati in breve tempo. Importanza delle ricerche specialmente nell'Egeo, ove si posseggono pochi dati.

**Cassinis G. & De Pisa M.** - La crociera gravimetrica del R. sommergibile « Vettor Pisani ». Anno 1931 [*Navigatio gravimetrica R. navis submergibilis* « Vettor Pisani ». *A. 1931*]. 66 pp. Tip. Ist. Idrogr. R. Marina. Estr. dagli Ann. Idrogr., III. Genova (1935). **a - 1806**

Organizzazione e itinerario - Strumenti - Cronometri e loro andamento - Osservazioni gravimetriche. Durate di oscillazione osservate - Elementi di riduzionè e riduzione delle osservazioni - Quota di navigazione e profondità del mare; Rotta; Velocità; Correnti - Valori osservati e ridotti della gravità - Posizioni geografiche; anomalie - Precisione delle determinazioni - Considerazioni riassuntive.

**Dietrich G.** - Die Ergebnisse der holländischen Schwereexpeditionen 1926-1932 [*De resultatibus ex navigationibus ab Hollandesibus peractis*

*ad maris gravitatem studendam, ab A. 1926 ad A. 1932*]. 1 Karte. Naturwiss., XXIV, 25, 395-397. Berlin (1936). **a - 1807**

Uebersicht und Besprechung der von Vening-Meinesz auf holländischen U-Booten in Ostindien auf den Reisewegen dorthin über Panama und Suez und im Atlantischen Ozean ausgeführten Untersuchungen.

**Forbush S. E.** - Gravity Determinations on the « Carnegie » [*Gravitatis determinationes in navi* « Carnegie »]. Proc. Fifth Pacific Sc. Congr. 1933, II, 887-893. Victoria and Vancouver B. C. Canada. Toronto & London (1934). **a - 1808**

**Gulotta B.** - Sullo spoglio dei fotogrammi gravimetrici [*De inspiciendis photogrammatis gravimetricis*]. Boll. Com. Geod. e Geof. C. N. R., ser. II, 2, 85-97. Milano (1935). **a - 1809**

L'Autore, dopo aver richiamato brevemente un metodo da lui precedentemente proposto, per lo spoglio dei diagrammi fotografici delle oscillazioni dei pendoli gravimetrici, ed averne confrontato teoricamente la precisione con quella del metodo comunemente impiegato, ne fa una applicazione pratica i cui risultati, d'accordo con le previsioni teoriche, mostrano che esso può dare una precisione notevolmente più grande.

**Heyl P. R.** - The Absolute Value of Gravity at Washington [*De gravitatis* Washington *valore absoluto*]. 1 table. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, I, 60-61. Washington D. C. (1935). **a - 1810**

Account of the results of the absolute determination of gravity at the U. S. National Bureau of Standards which have been practically completed, and its comparison with the Potsdam determination.

**Lejay P.** - Nouvelles déterminations de la gravité au Tonkin, au Laos et en Annam [*Gravitatis determinationes in* Tonkin, Laos *et* Annam]. 2 tabl. C. R. Acad. Sc., CCII, 5, 362-365. Paris (1936). **a - 1811**

Bref commentaire d'un tableau donnant, pour 55 stations nouvelles, la valeur de la gravité obtenue à l'aide du gravimètre n° 42 et résultats de plus de 14 déterminations de contrôle, en des points où la gravité avait été déterminée antérieurement.

**Lejay P.** - Carte gravimétrique de l'Indochine [*Tabula gravimetrica Indosinensis*]. 1 carte. C. R. Acad. Sc., CCII, 8, 609-612. Paris (1936). **a - 1812**

L'A. illustre une carte, reproduite dans le texte, qui a été dressée par suite de la mesure de la gravité en Indochine sur 97 stations; cette carte, malgré quelques inévitables lacunes, est assez complète pour faire ressortir les caractères généraux de la pesanteur sur tout le territoire de l'Indochine.

**Lejay P. & Tsang Hung Chi** - Carte gravimétrique du Sud-Ouest de la Chine [*Charta gravimetrica regionis Sinensis sud-occidentalis*]. 1 carte, 2 tabl. C. R. Acad. Sc., CCI, 8, 445-447. Paris (1935). **a - 1813**

Quelques remarques explicatives à la carte reproduite dans le texte et qui représente les anomalies de Bouguer, par rapport à l'ellipsoïde international. Sur cette carte figurent des stations des campagnes des AA. de 1934, et quelques stations de l'Indochine qui feront l'objet d'une prochaine publication.

**Marti P.** - Sur la croisière gravimétrique du sous-marin « Fresnel » dans la partie nord-ouest du Bassin Méditerranéen en 1933-1934 [*De navigationis gravimetrica navis submergibilis* « Fresnel » *in regionem nordoccidentalem Maris Mediterranei ab A. 1933 ad A. 1934*]. 1 fig. C. R. Acad. Sc., CCI, 22, 1019-1020. Paris (1935). **a - 1814**

Note avec croquis sur la différence de la pesanteur observée et de la pesanteur normale selon les stations du « Fresnel » en 1933–34 et celles du « Vettor Pisani » en 1931. Voir rapport détaillé dans le Compte rendu du Comité national français de Géodésie et Géophysique 1933, 1934 et 1935.

**Matuyama M.** - Distribution of Gravity over the Nippon Trench and Related Area [*Gravitatis distributio in Japonia et propinquitatibus*]. 1 fig. Proc. Imp. Acad., XII, 4, 93-95. Tokyo (1936). **a - 1815**

**Nørgaard G.** - Statistische Schweremessungen auf See und Land [*Gravitatis mensuris staticis terra et mari*]. Verhandl. F. Tag. Balt. Geod. Komm. II, 279-286 ? (1935). **a - 1816**

**Swick C. H.** - New Gravity Tables. [*Tabulae novae gravimetricae*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935 Append. D, I, 16. Washington D. C. (1935). **a - 1817**

Account of the preparation by the U. S. Coast and Geodetic Survey of some special tables concerning the indirect or Bowie effect in the isostatic reduction of gravity-station. The purpose of the tables is to make it possible to apply a correction at each gravity-station for the difference in elevation between the actual geoid and the mathematical spheroid on which the gravity-formula is based.

**Vening Meinesz F. A.** - Interprétation des anomalies de la pesanteur [*Interpraetatio anomaliarum gravimetricarum*]. Bull. Géod. 46, 291-294. Toulouse – Paris (1935). **a - 1818**

**U. S. Hydrographic Office** - The Navy-Princeton Gravity Expedition to the Vest Indies in 1932 [*Navigatio gravimetrica in Indias occidentales A. 1937*]. 16 figs., 2 pl., 1 map., 54 pp. U. S. Hydrogr. Off., Washington D. C. (1933). **a - 1819**

Narrative of the cruise by T. T. Brown, computations of the gravity observations by E. B. Collins of the U. S. Hydrographic Office, and a discussion of the results obtained from the geological point of view by H. H. Hess.

**An.** - Commission 21: Intensité de la pesanteur sur mer [*Commissio 21. Intensitas gravitatis, mari*]. Bull. géod. XLV, Janv.-Mars, 25-43. Toulouse, Paris (1935). **a - 1820**

Travaux de la Commission. Annexes.

**An.** - Scientific Cruises - Croisières [*Navigationes scientiae causa*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., III, 61. Monaco (1935). **a - 1821**

Brief summary of the program and itinerary of the Netherlands Submarine K-XVIII with participation of Professor Vening Meinesz.

## Sysmologia et vulcanismum bacini oceanici.

**Albani D.** - Variazioni di spiaggia e fenomeni bradisismici in Italia [*De variationibus orarum maritimarum deque phaenomenis bradisysmicis in Italia*]. Atti Soc. Ital. Progr. Sc. (XXII Riun. Napoli, II, ottobre 1934, 591-599. Roma (1935). **a - 1822**

Si riscontra una certa concordanza tra variazioni di spiaggia e lente variazioni di livello tra la terraferma e il mare: per cui a movimenti di sommersione di coste rocciose corrisponderebbero ritiri nelle linee delle spiagge che ad esse si appoggiano, mentre avanzamenti di spiaggia si verificherebbero là dove lenti movimenti di emersione sarebbero tuttora in atto. Il fenomeno di ritiro, che si manifesta oggi nella maggior parte delle spiagge italiane, potrebbe essere posto in relazione a lenti movimenti di sommersione riscontrabili su molti tratti di coste alte, i quali potrebbero, insieme ad altri importantissimi agenti naturali ed artificiali, determinare, o quanto meno aggravare, il fenomeno di ritiro suddetto. [A.].

**Bijlard P. P.** - Poging tot verklaring van het vulkanisme en de geologie van den westelijken Pacific [*De explicandis phaenomenis vulcanicis atque geologicis Oceani Pacific Occid.*]. Maps, ills. De Ing. in Ned. Ind. I. Algemeen gedeelte, 3, 37-43. Batavia (1936). **a - 1823**

**Bois Ch.** - Sur les séismes à foyer profond [*De bradisysmatis quorum centrum est profunditatibus*]. C. R. Acad. Sc. CCIII, 4, 341-343. Paris (1936). **a - 1824**

Répartition géographique: Bordure du géosynclinal circumpacifique. Zone des plissements alpins. Classement par profondeurs.

**Byerly P. & Wilson J. T.** - Earthquakes in Northern California and the Registration of Earthquakes at Berkeley-Mount Hamilton-Palo Alto-San Francisco-Ferndale from October I, 1933,. to March 31, 1934 [*De terrae motibus in California septentr. deque registrationibus terrae motuum in* Berkeley-Mount, Hamilton-Palo Alto San Francisco, Ferndale *a die 1 Octobris ad diem 31 Martii 1934*]. Bull. Seism. Stat., IV, 2, 77-165, Univ. Calif. Press, Berkeley, Ca., Cambridge, Univ. Press. London (1935). **a - 1825**

Earthquakes in Northern California – The registration of earthquakes: symbols and notations employed – Berkeley: Constants, Tabulation of shocks – Mount Hamilton id., id., – Palo Alto: id . id., – San Francisco: id., id., – Ferndale: id.

**Flores T.** - Las invaciones bruscas del mar a los litorales Mexicanos [*De rapidis invasionibus maritimis in litoribus Mexicanis*]. 1 carta. Un. Géod. & Géophys. Int., Ann. Comm. Etude Raz de Marée, 4, 94-99. Paris (1934). **a - 1826**

Descripción de las invaciones bruscas o anormales a los litorales mexicanos por el mar que han estado casi siempre en relación más o menos directa con los efectos de los grandes tremblores de tierra que con tanta frecuencia se sienten en el pais. En la Carta adjunta están señaladas las tres zonas que se distinguen en la Republica por su diferente grado de frecuencia sismica y en ella pueden verse algunas de la localidades que se citan en esta información.

**Fontserè E.** - Nota sobre la profunditat dels seismes catalans [*Nota de profunditate terrae motuum Catalanorum*]. Mem. 14 pp. Acad. Cienc. i Arts. III Epoca XXV vol. 7. Barcelona (1935). **a - 1827**

**Fukutomi T.** - On Crustal Deformations in Southern Idu Peninsula [*De corticis terrestris deformationibus in meridionali paeninsula* Idu]. 11 figs., 4 tables. Jap. Journ. Astron. & Geoph., XII, 3, 279-291. Tokyo (1935). **a - 1828**

Past upheavels of the sea coast in southern Idu Peninsula. Time of the later crustal deformation. Comparison of ancient and later (recent) crustal deformation. The earthquake associated with the crustal deformation in question.

**Heck N. H.** - List of Seismic Sea Waves [*Elenchus undarum sysmicarum idest maris motuum*]. 1 list. Un. Géod. & Géophys. Int. Ann. Comm. Etude Raz de Marée, 4, 20-41. Paris (1934). **a - 1829**

List of 224 tidal waves compiled from many sources with some information concerning the earthquakes they were connected with. Bibl.

**Heck N. H.** - Progress in Seismology of United States Coast and Geodetic Survey and Cooperating Institutions [*De progressibus in opera sysmologica ad* U. S. Coast and Geodetic Survey, *institutionesque affines pertinentia*]. Nat. Res. Counc., Amer. Geoph. Un., Trans. 16th Ann. Meet., Apr. 25-26, 1935, 96-99. Washington D. C. (1935). **a - 1830**

Teleseismic work. Cooperators furnishing records for interpretation. Earthquake information. Recording of strong earth-quake motion. Records of interest during last year. Instrumental development. Shaking-platform test. Crustal movements. Work which might be carried out.

**Imamura A.** - Some illustrations of the Effect of the Sanriku Tunami of 1933 [*Effectus maris motuum in* Sanriku *A. 1933*]. 5 pls. Un. Géod. & Géophys. Int., Ann. Comm. Etude Raz de Marée, 4, 63-66. Paris (1934). **a - 1831**

Effects of the San-Riku tunami at Kamaisi, Tôni-Kozirahama, Tarô-Mura, Ryôisi, Hunakosi, Atumari, Tadaide and Matusaki-Tomari on the Pacific coast of Japan.

**Katô Y.** - Magnetic Disturbance in the Seismic Area of the Semi-destructive Siduoka Earthquake of July 11, 1935 [*Perturbationes magneticae in area sysmica terrae motus semidestructorii in* Siduoka *die 11 Julii 1935*]. 11 figs., Proc. Imp. Acad. XII, 4, 91-92. Tokyo (1936). **a - 1832**

**Kishino-Uye F.** - Some Notes on the Sanriku Tunami in 1933 [*De* tunami *in* Sanriku *regione A. 1933*]. (In Jap.) Disin, 5, 760-763. Tokyo (1933). **a - 1833**

**Kuenen Ph. H.** - Contributions to the Geology of the East Indies from the Snellius Expedition [*Contributiones in studendam geologiam Indiarum Orientalium per expeditionem* « Snellius ». *Pars Ia*]. 46 figs. Leidsche Geol. Meded. VII, 273-331. Leiden (1935). **a - 1834**

Sketches and descriptions of several volcanic islands. A special chapter by Koomans is dedicated to the petrology of the East Indian volcanoes.

**Lacoste J.** - Remarques au sujet du premier mouvement du sol lors des tremblements de terre intéressant quelques régions européennes [*Observationes circa terreni priorem motum terrae mo-*

*tibus perdurantibus in quibusdam regionibus europaeis*]. C. R. Acad. Sc., CC, 25, 2106-2108. Paris (1935). **a - 1835**

L'A. étudie les premiers mouvements du sol au cours des séismes qui se sont produits depuis le 1 Juin 1923 jusqu'au 1 Juin 1935 dans la vallée du Rhin, la Forêt Noire, la Suisse, l'Italie, l'Autriche et la Yougoslavie et formule quelques conclusions, se référant, en particulier, à la surrection des Apennins (dans la région de Bologne) qui continuerait encore de nos jours, tandis que dans la région d'Udine et sur la côte italienne de l'Adriatique il y a tendance à l'effondrement.

**Lazurkin E. M.** - On the Seismic Character of the Ust-Lena Harbour District [*De peculiaritate sysmica portus* Ustj-Lena]. Bull. Arct. Inst., V. 12, 428-429, 462-463. Leningrad (1935). **a - 1836**

After recalling the attention to the fact that Tixy Bay has actually the right to be called the Ust-Lena Harbour, author emphasizes the seismic character of the region around it, which is in entire accordance with the geological phenomena that in the past few years have been recorded by him and other investigators in the Kharaulakh mountains, e. g. the presence of extremely young tectonics expressed in the vast disturbances intersecting the country in a NW direction and still reflected in its relief.

**Malladra A.** - Les raz-de-marée ou tunamis dans le Golfe de Naples [*De* tunamis *seu gallice* raz-de-marée *in Sinu Neapolitano*]. Bull. volcan. VI, Sept. Naples (1933). **a - 1837**

Etude des raz-de-marée accompagnant les éruptions du Vésuve, en se basant sur descriptions de l'histoire.

**Nagaoka H.** - The Ellipsoidal Geoid and the Distribution of Seismic Centres and Volcanoes [*De geoide ellipsoidali deque distributione centrorum sysmicorum et vulcanicorum*]. Proc. Imp. Acad., IX. Tokyo (1933). **a - 1838**

Positions of great volcanoes and seismic centres. Their distribution in zones of the neighbourhood of meridians passing through the axes of the equatorial ellipse.

**Nakamura S. T.** - The Geophysical Observations of the Tunami (Tidal Waves) on March 3, 1933 [*Observationes geophysicae de undis aestuosis die 3 Martii 1933*]. Zihô Saito Grat. Found, 88, 1-12 (?) (1934). **a - 1839**

Seismological, magnetic and electric data obtained in the Mukaiyama Observatory as regards the earthquake which was accompanied by the tunami. It was found that magnetic dip at Sendai increased with a considerable rate from 51°52' in August 1933, when the regular observation began in the observatory, to its maximum value 52°01' in December 1933. About two months after the maximum value was attained, the earthquake occurred. After the earthquake, the secular change of dip recovered its general tendency of gradual decreasing. Corresponding anomalous change in horizontal component is also noticed. It was found that such an anomalous dip occurred all over the eastern part of North-East Japan. A comparison is made between the data collected and those obtained by A. Takanadate and by the Hydrographic Department of the Imperial Navy in the case of the 1896 tunami. (Author).

**Nakano M. & Nakagawa J.** - Propagation Path of Sea Waves originated by Earthquakes (Tunami) [*De undis marinis a terrae motibus excitatis earumque propagatione*]. (In Engl.). Geophys. Mag., Sept., 215-221. Tokyo (1935). **a - 1840**

Deduction of a general expression for the path of such a wave on the basis of the results of the earthquake of March 3, 1933 recorded at Tukihama (Sanriku).

**Nasu N.** - Errors in the Seismic Triangulation [*De erroribus in triangulatione sysmica*]. 15 figs., 7 tables. Jap. Journ. Astron. & Geoph., XII, 3, 245-278. Tokyo (1935). **a - 1841**

Seismic triangulation. - Observation of the Tango after-shocks. (1) Errors in determining the duration of the preliminary tremors. (2) Errors in determining k (constant factor) in the formula D = kt (D - focal distance; t - duration of preliminary tremors). (2) Errors in the position of seismic focus due to errors in the durations of the preliminary tremors.

**Neumann Navarro S.** - Notas volcanologicas de 1933 [*Notae vulcanologicae A. 1933*]. 5 fig., Ibérica, XLIII, 1072, 313-317. Barcelona (1935). **a - 1842**

Europa: Italia - Etna, Vesubio. Asia: Japòn, Islas Kuriles, Java. América del Norte: Alaska. América central: Costa Rica, El Salvador. América del Sur: Chile. Oceania: Hawaii.

**Nomitsu T.** - A Theory of Tunamis and Seiches Produced by Wind and Barometric Gradient [*De* tunamis *et sessis a vento excitatis deque gradiente barometrico*]. Mem. Coll. Sc., Ser. A, 18, 201-214. Kyoto (1935). **a - 1843**

This paper has been prepared from a previous paper of A. in order to serve for investigations on the Tunamis caused by the typhoon that attacked the Kwansai district of Japan on September 21, 1934. It contains a correction to the ordinary formula for the steady value of surface elevation in shallow water and deals also with the development of tunamis and seiches under the condition of bottom slip in the case of varying causal action and in those of progressive action.

**Platania G.** - Alcune considerazioni sui maremoti [*Considerationes de maris motibus*]. Ann. Ist. Sup. Nav. IV, 2, 117-124. Napoli (1935). **a - 1844**

Articolo di carattere generale: considerazioni su studi recenti fatti in Giappone, in Italia (Golfo di Napoli) e negli S. U. dal Coast & Geod. Surv.

**Rothé E.** sous la direction de... - Annuaire de l'Institut de Physique du Globe 1932 & 1933. 2me Partie. Séismologie. [Institut de Physique du Globe. *Annuarium pro A. 1933. Pars IIa: Sysmologia*]. vii + 85 & vii + 123, 2 vol., G. Pauc. Mende (1933 & 1934). **a - 1845**

Observations des Stations françaises. Bulletin du bureau central séismologique français.

**Siñeriz J. G.** - La investigación sísmica en el Estrecho de Gibraltar [*De investigationibus sysmicis in Freto Gaditano*]. Rev. Acad. cien. 32, 431-476. Madrid (1935). **a - 1846**

**Stephens A. D. C.** - Solomon Islands. Le raz de marée de 1931 [*Insulae* Solomon. *Maris motus A. 1931*]. Un. Géod. & Géophys. Int., Ann. Comm. Etude Raz de Marée, 4, 130-132. Paris (1934). **a - 1847**

Report on the series of earthquakes which occurred in the Eastern Solomons District during October 1931, followed by tidal waves and considerable alteration of level in various places in the District.

**Stoneley R.** - Apparent Velocities of Earthquake Waves over Surface of Earth [*De velocitatibus apparentibus undarum sysmicarum ad Terrae superficiem*]. R. Astron. Soc., M. N. Geophys. Suppl., 3 (May), 262-271. London (1935).

( — ) See note in Nature, CXXXVI, 3451, 990. London (1935). **a - 1848**

Calculations on the velocity of earthquake waves due to earthquake occurred in Mexico and recorded at Apia. The refraction effect of the waves when passing from continental to oceanic areas. See similar results reported by H. F. Baird in Nature, No. 3444, p. 723, 1935.

**Tanakadate H.** - Volcanic Activity in Japan During the Period Between July 1934 and October 1935 [*De activitate sysmica in Japonia a mense Julio 1934 ad Octobrem 1935*]. 7 figs. Jap. Journ. Astron. Geoph., XIII, 2, 121-139. Tokyo (1936). **a - 1849**

Activities of the Japanese volcanoes in the period between July 1934 and October 1935 are illustrated with special reference to the Tisima Zone, the Nasu Zone, the Husi Zone, the Norikura Zone, the Hakusan Zone, the Aso Zone, and the Kirisima Zone.

**Tanakadate H.** - Evolution of a New Volcanic Islet Near Iô-zima [*Evolutio novi cuiusdam insuleti vulcanici apud* Iô-zima]. 5 figs. Proc. Imp. Acad., XI, 4, 152-154. Tokyo (1935). **a - 1850**

Description of the growth of a new volcanic islet formed during the submarine eruption near Iô-zima (Sulphur Island) and of the submarine eruption, the subaerial eruption on a cone, the cone of the second cycle and the pumice islands whose formation, evolution, destruction and reformation have been observed from December 1934 to January 21, 1935.

**Tanakadate H.** - The Volcanological and Petrographical Note of the Takemoti Islet in the Kuriles [*Nota vulcanologica et petrographica circa insuletum* Takemoti *ad insulas* Kurile *pertinentem*]. 1 table. Proc. Imp. Acad., XI, 4, 155-157. Tokyo (1935). **a - 1851**

This paper completes a previous publication (Proc. Acad. X, 494, 1934).

**Tanakadate H.** - A Volcanological and Petrographical Note of the New Volcanic Islet near Iô-zima [*Nota vulcanologica et petrographica de novo insulet vulcanico apud* Iô-zima]. Proc. Imp. Acad., XI, 9, 370-372. Tokyo (1935). **a - 1852**

**Tuboi I.** - Tunami in the Osaka-Wan [*De undis sysmicis* (Tunami) *in* Osaka-Wan]. Journ. Oceanogr., VIII, 2. Kobe (1935). **a - 1853**

**Whipple F. J. W.** - Recent Advances in Seismology [*De recentibus progressibus sysmologiae*]. 2 maps. Nature, CXXXVI, 3446, 782-784. London (1935). **a - 1854**

Paper read before Section A. of the British Assoc. at Norwich on September 9, opening a discussion on recent advances in seismology. Short review of work accomplished during these last years. The high frequency of earthquakes round the Pacific and its causes. Works of Honda and Wadati.

**Institut Géophysique National. Tchécoslovaquie** - Bulletin séismique [*Bulletinus sysmicus*]. Dactilogr. Publication trimestrielle. Prague (1936). **a - 1855**

**Instituto y Observatorio de Marina** - Boletin Sismico. San Fernando [*Bulletinus sysmicus. S. Fernandus*]. 2 tabl. Bol. Sism. Inst. y Observ. Mar. San Fernando (1935). **a - 1856**

Resultados de las observaciones sismicas en San Fernando en 1935. Boletin bimestral.

**Servicio Sismologico de la Universidad de Chile** - Historia de los maremotos acaecidos en Chile desde el año 1562 hasta el año 1932 [*Historia maris motuum in* Cile *ab A. 1562 ad A. 1932*]. Bol. Serv. Sismol. Univ. Chile, XXIII, Observ. 1931 y Resum. princip. maremot., 34-41. Santiago (1933). **a - 1857**

(Un. Géod. & Géophys. Int., Ann. Comm. Etude Raz de Marée, 4, append.).

**Université de Strasbourg. Faculté des Sciences** - Annuaire de l'Institut de Physique du Globe. 1934. 2me partie. Séismologie. Observation des Stations Françaises [ Institut de Physique du Globe. *Annuarium pro A. 1934. Pars II : Sysmologia. Observationes Stationum Gallicarum*]. Fig., tabl., 128 pp. G. Pauc. Mende (1936). **a - 1858**

**U. S. Department of Commerce Coast and Geodetic Survey** - United States Earthquakes 1933 [*De terrae motibus in Americae Statibus Foederatis. A. 1933*]. Tabl., 17 figs., 82 pp. Serial, 579. Washington (1935). **a - 1859**

Introduction. Noninstrumental results. Earthquake activity in the various States among which Hawaiian Islands, Philippine Islands, Puerto Rico, Panama Canal Zone. The Long Beach earthquake of March 10, 1933. Seismological observatory results. Strong-motion seismograph results. Tilt observations.

**An.** - Seebeben im östlichen Mittelmeer [*De maris motu in Mediterraneo orientali*]. Seewart V, 2, 74. Hamburg (1935). **a - 1860**

Kurzer Bericht über das am 23. Mai 1935 in 35°17'N, 23°18' O beobachtete Seebeben mit einer vom Leiter der Hauptstation für Erdbebenforschung zu Hamburg beigefügten kurzen Erläuterung.

**An.** - Raz de marée survenus au Chili de 1562 à 1932 [*De maris motibus in* Chili *ab A. 1562 ad A. 1932*]. Un. Géod. & Géophys. Int. Ann. Comm. Etude Raz de Marée, 4, 47-49. Paris (1934). **a - 1861**

Résumé d'un article paru dans « Boletin Sismologico de la Universidad de Chile », XXIII, 1933.

**An.** - Dahomey (Raz de marée). [*De maris motibus*]. Un. Géod. & Géophys. Intern., Ann. Comm. Etude Raz de Marée, 4, 53. Paris (1934). **a - 1862**

Quelques informations concernant les raz de marée qui se sont produits à Cotonou, dont le dernier remonte à plus de dix ans.

**An.** - Norvège. - Raz de marée [*Norvegia - Maris motus*]. Un. Géod. & Géophys., Int., Ann. Comm. Etude Raz de Marée, 4, 100. Paris (1934). **a - 1863**

Brève description d'un raz de marée, survenu à l'extrémité du Tafjord le 7 avril 1934 et ses causes.

**An.** - Volcanic Island-Taketomi Sima. - Japan - Ile volcanique - Taketomi Sima - Japon [*Insula vulcanica* Taketomi Sima *in Japonia*]. (In Engl. & French). Int. Hydrogr. Bull. - Bull. Hydrogr. Int., II, 27. Monaco (1936). **a - 1864**

Information on a report published in the Hydr. Bull., nº 2, February 1936, by the Hydrographic Department of the Imperial Japanese Navy concerning the volcanic island Taketomi Sima, which completes and illustrates the information published in « Hydrographic Review », XI, 2, p. 170, Monaco, 1934.

# III.

# OCEANOGRAPHIA BIOLOGICA

## GENERALIA

### Instituta – Musea – Aquaria – Relationes annuae – Congressus et conferentiae – Biographiae – Expeditiones oceanographicae.

**Andersson K. A.** - Baltic Area 1935 [*Relatio de area Maris Baltici A. 1935*]. 1 fig., Cons. Expl. Mer, Rapp. & Pr. Verb., C, 2ème partie, 78-83. Copenhague (1936). **b - 1**

The meeting of experts in Copenhagen on December 4th and 5th 1935. Denmark (Blegvad): Biology, plaice, flounder, turbot, sprat, cod, valutations of the sea bottom, the food of the herring. Hydrography. - Finland: Biology. - Germany: Biology (Fischer), Hydrography (Schulz). - Latvia: Statistics, Biology, Hydrography. - Poland: Biological and fisheries investigations. Salmon and Sea trout. - Sweden: Biology - herring, flounder, plaice, cod. Salmon and Sea trout. Plankton.

**Blegvad H.** - Transition Area Committee 1935 [*Comitatus pro area transitionis. Relatio de operibus peractis. A. 1935*]. (In. Engl. & Germ.). 5 maps, 1 diagr., Cons. Expl. Mer, Rapp. & Pr. Verb., C, 2ème partie, 66–77. Copenhague (1936). **b - 2**

Denmark. Biology (Blegvad): Different species, larvae, shellfish, bottom invertebrates, plankton, fish-diseases. - Germany. (Fischer): Age analysis on sprat, transplantations of North Sea plaice, market measurements, investigations on Crustacean species, eel fishery, brown trout. (Strodtman): Untersuchungsfahrt über den Flundernbestand, Schollen, Steinbutt. - (Kändler): Jungschollenuntersuchungen, Flunder, Sprott, Plankton. - Norway: University of Oslo. Fisheries Directorate. The Flødevigen Hatchery. Hydrography, Plankton and eggs. Publ. - Sweden: Haddock, Witch, Plaice, Sprat, Herring, eggs and fry, *Pandalus*, Plankton. Publ. - Johansen's young Plaice trawl.

**Bouvier L.** - Jean Charcot [*Necrologia*]. C. R. Acad. Sc., CCIII, 12, 549–551. Paris (1936). **b - 3**

Discours prononcé par M. le Président de l'Académie des Sciences française à l'occasion de la mort de l'explorateur. (Voir aussi « Rectification et addition etc. » C. R., 637-639).

**Bouxin H.** - Installation d'un aquarium marin pour un Laboratoire situé loin de la Mer [*Constitutio cuiusdam aquarii marini in laboratorio longe a regione maritima*]. 6 fig., Bull. Soc. Nat. Accl. France, LXXXV, 5/6, 138-162. Paris (1935). **b - 4**

Description des méthodes de filtration et du ménagement de l'eau.

**Bückmann A.** - Southern North Sea 1935 [*Investigationes Mari Nordico meridionali A. 1935*]. Cons. Expl. Mer, Rapp. & Pr. Verb., C, 2ème partie, 54-66. Copenhague (1936). **b - 5**

Work at Sea. Fish: General. Cod and Haddock. Herring. Plaice. Common Sole. Other Fish. Shellfish. Benthos and deposits. Plankton. Hydrography. Scientific papers concerned with the Committee's work published in 1935.

**Capparoni P.** - Una lettera inedita di Lazzaro Spallanzani [*Epistula quaedam nondum edita ad Lazarum* Spallanzani *pertinens*]. 2 fig., Atti Mem. Acc. Storia Arte Sanit. (in append. a: Rass. Clin. Terr. e Sc. Aff.), XXXV, 3, 117-123. Roma (1936). **b - 6**

La lettera contiene una relazione sul viaggio fatto a Marsiglia, al golfo della Spezia, a Massa e Carrara e sul materiale ittiologico raccolto e destinato ad arricchire il museo dell'Università di Pavia; viene accennato alla prossima pubblicazione dell'opera le « Riproduzioni Animali »

**Chevey P.** - Rapport sur le fonctionnement de l'Institut Océanographique de l'Indochine pendant l'année 1934–1935 [*Relatio de Instituto Oceanographico Indosinensi pro A. 1934-5*]. Inst. Océanogr. Indochine, Stat. Marit. Cauda, 27, 3-26. Saigon (1935). **b - 7**

Rapport sur les recherches d'océanographie biologique. Plancton. Faunistique: Systématique des invertébrés et des poissons. Pêche: prévisions de pêche et réglementations. Pêcheries de la lagune de Hué. Ostréiculture: Biologie et utilisation industrielle des huîtres. Réglementation ostréicole. Océanographie physique.

**Clark R. S.** - Northern North Sea 1935 [*Relatio de area Maris Nordici Septentrionalis*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 47-53. Copenhague (1936). **b - 8**

Hydrographic conditions in the Northern North Sea and their influence on the presence of fish and their food animals. Research work and fisheries of the different countries.

**Clemens W. A.** - Report of the Pacific Biological Station Nanaimo, B. C. for 1935 [*Relatio redacta a Statione biologica pro Oceano Pacifico,* Nanaimo B. C. *pro A. 1935*]. Ann. Rep. Biol. Bd. Canada 1935, Appendix III, 25-36. Ottawa (1936). **b - 9**

The problems studied concern principally the conservation, development and administration of the fisheries. Salmon: propagation. Pilchard. Herring. Shellfish: oysters, clams, the shipworm. Food of the fur seal. Oceanography: currents off the coast of B. C. Trout. Fish diseases. Chemical and other investigations. Publications.

**Crossland C.** - The Egyptian Exploration of the Red Sea [*De exploratione Maris Rubri ab Aegyptianis peracta*]. 2 graphs. Nature, CXXXVII], 3469, 712-713. London (1936). **b - 10**

Report on a cruise undertaken last winter by the University of Egypt and the Fisheries Research Department in order to study: the structure of the Red Sea Rift, the hydrography and the bottom fauna.

**Dons C.** - Den zoologiske avdeling. Marine undersøkelser. Trykte arbeider [*Sectio zoologica. Investigationes marinae. Scripta*]. 1 fig., Kgl. Norsk. Vidensk. Selsk. Mus. Årsber., 1934, 54-56. Trondheim (1935). **b - 11**

Report on the expedition of the Biological Station of Trondheim to the West-Finnmark June 25th-August 2nd for the investigations of coral reefs. Species collected from the littoral fauna. Publications.

**Fage M.** - Leçon d'ouverture du cours d'Océanographie biologique [*De oceanographia biologica. Auditio auguralis*]. Bull. Inst. Océanogr., 698, 1-20. Monaco (1936). **b - 12**

L'orateur a remplacé dans cet enseignement le regretté prof. Joubin dont il fait un exposé de la vie et des travaux. Les croisières de l'« Orvet » et l'œuvre de Pruvot, les recherches de Schmidt. Relation de l'océanographie avec la bactériologie et la géologie; les travaux des océanographes.

**Ferreira E.** - Coronel Francisco Afonso Chaves [*Necrologia*]. Açoreana, I, 3, 135-146. Horta (1936). **b - 13**

Necrologia. Notizie sulla vita e l'attività scientifica di Chaves, direttore del Museo municipale Carlos Machado di Punta Delgada. Le ricerche zoologiche compiute sulla fauna delle Azzorre.

**Fischer-Piette E.** - Le Laboratoire maritime du Muséum National d'Histoire naturelle à Dinard [*Laboratorium maritimum in Museo nationali pro historia naturali urbis* Dinard]. 9 fig., Bull. Lab. Marit. Dinard, XV, 1-7. Rennes (1936). **b - 14**

Ce Laboratoire a été transféré de Saint Servan à Dinard. Description des nouveaux locaux et de l'Aquarium. La flottille du Laboratoire.

**Gilson G.** - Combined North Sea and Eastern Channel Committee 1935 [*Comitatus pro investigationibus Mari Nordico et Freto Britannico, pro A. 1935*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 46-47. Copenhague (1936). **b - 15**

General remarks on the work already carried out and to be carried out. Belgium. England. France. Germany. Holland.

**Gourbounov G. P.** - Travaux hydrobiologiques [*De operibus hydrobiologicis*]. (En russe). 1 carte. Troudy Tajmyrsk. Ghidrogr. Exped. (Trav. Expéd. Hydrogr. Tajmyr), II, 173-174. Leningrad (1936). **b - 16**

**Gran H. H.** - Plankton Committee 1935 [*Comitatus Plancton studendo A. 1935*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 102-106. Copenhague (1936). **b - 17**

Belgium. - Denmark (Paulsen): Home waters, northern waters, publications. - France. - England: Lowestoft, Plymouth. - Germany: Hamburg, Heligoland. - Holland. - Irish Free State. - Latvia. - Norway: publications. - Poland. Portugal. - Scotland. - Spain. - Sweden.

**Hanström B.** - Cape Cod och Florida [*De* Cape Cod *atque Florida*]. 217 pp., A. Bonniers förl. Stockholm (1936). **b - 18**

Fauna and flora. Description of the greatest marine biological station of the world at Cape Cod.

**Hjorth J.** - Human Activities and the Study of Life in the Sea. An Essay on Methods of Research and Experiment [*De activitate et studiis quoad investigationes maritimas. Methodus et experimenta*]. 10 figs., Geogr. Rev., XXV, 4, 529-564. New York (1935). **b - 19**

This work has two separate aims; the study of the animal life of the ocean and the discovery and development of new or better ways of carrying on the Norwegian fishing industries. Origin and life histories of industries and of species. Geographical distribution of species. Form and environment. Form and function and the origin of species. Survival, extinction, and fluctuations. Methods of biology.

**Johnsen S.** - Konservator James A. Grieg [*Necrologia*]. (In Norw.) 1 photo, Naturen, LX, 4, 97-98. Bergen (1936). **b - 20**

Curator at the Museum of Bergen since 1886, dead on February 19th 1936. His researches and publications concern principally *Mollusca* and *Echinodermata*.

**Kluege G.** - Results of Biological Work on Cape Zhelanije [*Resultatus ex operibus biologicis in Promunturio* Zhelanije]. (In Russ.; Engl. Summ.). Bull. Arct. Inst., VI, 4, 170-172, & 195. Leningrad (1936). **a - 21**

This investigation shows the abundance of the bottom fauna of the Pospelov Bay near the cape, which is situated at the juncture of the Barents and Kara Seas and attracts for the richness of its plankton enormous quantities of fish, especially in autumn for spawning.

**Le Danois E.** - Plateau Continental Atlantique (Atlantic Slope). 1935 [*Relatio de area Plateae continentalis atlanticae A. 1935*]. 1 table, Cons. Expl. Mer, Rapp. & Pr.-Verb, C, 2ème partie, 44-45. Copenhague (1936). **b - 22**

Tableau sur les croisières effectuées pour chaque mois. France. Grande-Bretagne. État-Libre d'Irlande. Espagne et Portugal.

**Le Danois E.** - Comité Atlantique 1935 [*Comitatus Atlanticus A. 1935*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 45. Copenhague (1936). **b - 23**

Brève note sur la création du Comité et la prochaine séance.

**Le Danois E.** - Océanographes au travail [*Oceanographi quidam laborantes*]. 6 figs., Mer et Outre Mer, II, 5, 50-53. Paris (1936). **b - 24**

Description de la vie à bord du navire « Prés. Théodore-Tissier » et des recherches poursuivies sur le fond de pêche. Échantillons d'eau rapportés par la bouteille à renversement, la récolte du plancton par le filet cylindrique et le grand filet vertical, la mensuration des poissons capturés.

**Malpas A. H.** - Administration Report of the Marine Biologist for the Year 1935 [*Relatio ad administrationem pertinens redacta a praefecto biologiae marinae pro A. 1936*]. Ceylon Govmt. Press, IV, 3-9. Colombo (1936). **b - 25**

Pearl fishery (Gulf of Mannar). Windowpane oyster fishery (Lake Tamblegam). Chank fishery. The local fishing industries. Miscellaneous.

**Mertens R.** - Der neue Wal-Saal des Natur-Museums Senckenberg [*Agitur de sede nova in qua exponitur exemplar speciei « Balaenoptera physalus » in museo Senckenbergensi pro historia naturali*]. 17 Abb., Natur u. Volk, LXV, 12, 574-586. Frankfurt a. M. (1935). **b - 26**

Beschreibung des oben genannten Gerippes (Gesamtlänge 24 m) und anderer naheverwandten Wale; Präparate von Keimlingen und Haut-Schmarotzern, sämtliche im Museum.

**Mill H. R.** - Obituary Dr. J. B. Charcot [*Necrologia*]. Nature, CXXXVIII, 3493, 608-609. London (1936). **b - 27**

Biography and explorations.

**Murray Luck J.** - The American Association for the Advancement of Science. The Seattle Meeting of the Pacific Division [*Relatio de consessu* Seattle *habito a Divisione pro Oceano Pacifico Associationis Americanae rebus scientificis colendis*]. Science, LXXXIV, 2172, 149. New York (1936). **b - 28**

Report on the Oceanographic Society of the Pacific: Papers.

**Paspalew G. W.** - Bericht über die dreijährige Tätigkeit (1932-1935) der biologischen Meeresstation und Aquarium in Varna, Bulgarien [*Relatio de triennali activitate (1932-1935) Stationis biologiae marinae et aquarii urbis* Varna *in* Bulgaria]. (In Bulg., Dtsch. Rés.). 9 Abb., Arb. Biol. Meeresstat. Schwarz. Meer Varna, Bulg., 6, 1-24. Sofia (1936). **b - 29**

Aufgaben. Wissenschaftliche Laboratorien. Heutiger Zustand der Station: Personal, Boote, Apparate. Bibliothek. Aquarien.

**Peau E.** - Observations océanographiques faites de Barry (Angleterre) à l'Archipel de Kerguelen (12 Octobre-2 Décembre 1923). (A suivre). [*Observationes oceanographicae confectae e* Barry (*in Anglia*) *usque ad archipelagus* Kerguelen (*a die 12 Octobris ad diem 2 Decembris 1923*)]. Bull. Soc. Amis Inst. Océanogr. du Havre, XVII, 50, 2-4. Le Havre (1936). **b - 30**

Extrait du journal tenu au bord. Conditions météorologiques, température; animaux marins observés.

**Pohl L.** - Louis Boutan (1859-1934). [*Necrologia*]. Inst. Océanogr. Indochine, Stat. marit. Cauda, 31, 7-14. Saigon (1936). **b - 31**

Notice nécrologique sur L. Boutan, ancien chef de la Mission Scientifique permanente de l'Indochine. Ses études de biologie marine dans le Détroit de Torrès; la mission dans la Mer Rouge; ses recherches sur les fonds marins environnant Banyuls-s-Mer ainsi que de la faune et de la végétation marines; sa découverte d'un procédé de culture des perles fines par la greffe épithéliale dans le manteau des Mollusques; son activité en général.

**Poteriayev E. A.** - Rapporto sull'attività della Stazione Biologica Arnoldi a Novorossiysk [*Relatio de activitate stationis biologicae nomine* Arnoldi *in* Novorossiysk]. (In russ.). 4 figs. Works Arnoldi Biol. Stat., II, 1, 1-16. Novorossiysk (1936). **b - 32**

Pubblicazioni uscite dal 1926. Studenti che lavorano nella stazione. Attività. Spedizioni. Sedute e conferenze.

**Remotti E.** - Raffaele Issel [*Necrologia*]. 1 fig., Boll. Mus. e Lab. Zool. e Anat. Comp., XVI, 91, 1-22. Genova (1936). **b - 33**

L'attività scientifica del prof. Issel, titolare della Cattedra di Zoologia all'Università di Genova. Ricerche sulle praterie dei fondi litorali marini, sulla biologia delle pozze di scogliera, sulla fauna di tipo abissale con ricostruzione della biocenosi del fondo a *Nephrops norvegicus*. Il complesso degli studi sul plancton.

**Richard F.** - Notice biographique sur le professeur Louis Joubin [*Notitiae biographicae professoris* Joubin]. 2 tabl., Bull. Inst. Océanogr., 707, 1-23. Monaco (1936). **b - 34**

Etudes des collections du « Travailleur », « Talisman », « Hirondelle », « Princesse Alice », « Discovery », « Belgica », « Siboga », « Dana » etc. Il s'est dédié particulièrement aux recherches sur les Céphalopodes, Brachiopodes, Némertiens et Chétognathes; il s'est aussi occupé de la distribution géographique des coraux et de certains animaux ainsi que des problèmes en rapport au développement de la pêche.

**Sandor W.** - A Roscoffi Tengerbiológiai intézet [*Institutum marinum biologicum urbis* Roscoff]. (In Ungh.). 2 fig., A Tenger, XXVI, 7/8, 77-80. Budapest (1936). **b - 35**

L'opera di Lacaze-Duthiers. I lavori compiuti nella stazione. La pubblicazione dei « Travaux de la station biologique de Roscoff ».

**Serène R.** - Rapport sur le fonctionnement de l'Institut Océanographique de l'Indochine pendant l'année 1935-1936 [*Relatio de ratione Instituti Oceanographici Indosinensis pro A. 1935-1936*]. Tabls., 7 pls., Inst. Océanogr. Indochine, Stat. marit. Cauda, 32, 3-22. Saigon (1936). **b - 36**

Personnel. Recherches d'océanographie biologique sur le plancton et sur la faune générale, celle du littoral comme celle des fonds marins. Recherches techniques sur la pêche. La pisciculture et l'ostréiculture. Publications.

**Siedlecki M.** - Salmon and Trout Committee 1935 [*Comitatus Salmone et Trutta studendis A. 1935*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 106-111. Copenhague (1936). **b - 37**

Denmark. England. Finland. France. Germany. Irish Free State. Latvia. Poland. Free port of Danzig. Portugal. Scotland. Spain. Sweden. General reports, biological investigations, propagation, marking etc.

**Smith D. W.** - Leopoldo A. Faustino [*Necrologia*]. Science, LXXXIII, 2146, 152. New York (1936). **b - 38**

Obituary on Dr. L. A. Faustino, assistant director of the Bureau of Science in the Philippines, well known geologist and paleontologist. His researches embrace especially corals.

**Stejneger L.** - Report of the United States National Museum 1935. Department of Biology [*Relatio Musei Nationalis Americae Statuum Foederatorum. A. 1935. Sectio biologica*]. Rep. U.S. Nat. Mus. 1935, 27-44. Washington D. C. (1936). **b - 39**

Fishes, marine invertebrates, mollusks, corals, echinoderms: new accessions, cataloging, scientific workers.

**Sund O.** - North-Eastern Area 1935 [*Relatio de area Nord-orientali A. 1935*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 37-39. Copenhague (1936). **b - 40**

Germany (market measurements, fishery, publications). - Norway: Work at sea and hydrography, plankton, fishing technique, biology of fish, etc., publications. - Scotland: herring.

**Tåning Å. V.** - North-Western Area 1935 [*Relatio de area Nord-occidentali A. 1935*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 40-43. Copenhague (1936). **b - 41**

Denmark, Faroes, Iceland: Cod, herring, plankton, bottom-sampling, hydrography, prawns. Denmark Strait. Greenland. England. Germany. Scotland. Literature.

**Thompson T. G.** - The Oceanographic Laboratories of the University of Washington [*Laboratoria oceanographica ad Universitatem pertinentia urbis* Washington]. Univ. Washington Publ. Oceanogr., suppl. ser. No. 46, (The collect. Net., X, 10), Seattle, Wash. (1935). **b - 42**

The Seattle laboratory, the Field Laboratories at Friday Harbor and the research motor vessel « Catalyst »: descriptions; cooperation with other institutions; members; researches.

**Zubkov A.** - Work of the Economic-Biological Section of the Arctic Institute in 1936 [*De operibus peractis a Sectione oeconomico-biologica Instituti Arctici A. 1936*]. (In Russ. & Engl.). Bull. Arct. Inst., VI, 5, 207-208, 226-227. Leningrad (1936). **b - 43**

Organization of local branches for scientific investigation-zonal economic-biological stations. Their program.

**Biological Board of Canada** - Publications [*Scripta*]. Ann. Rep. Biol. Bd. Canada 1935, Appendix VI, 49-55. Ottawa (1936). **b - 44**

General information. Alphabetical list of papers published during 1935 on the work of the Biological Board.

**Bollettino di Zoologia** - Raffaele Issel [*Necrologia*]. Boll. Zool., VII, 5/6, 221-222. Napoli (1936). **b - 45**

Necrologio del prof. Issel, titolare della cattedra di zoologia della R. Università di Genova, spentosi il 7 ottobre 1936 in quella città. Sua attività scientifica.

**Conseil Permanent International pour l'Exploration de la Mer** - Reports of the Proceedings of the Special Plankton Meeting Held on May 27th, 1935, at Copenhagen and of the Special Meeting, Held at Videnskabernes Selskab's Premises on May 31st, 1935 [*Relatio de operibus confectis perdurante consessu speciali de* Plankton, *Hauniae habito, die 27 Mensis Maii, 1935. Agitur etiam de speciali consessu Societatis Scientiarum, habito die 31 mensis Maii, 1935*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., XCV, 1-61. Copenhague (1935-36). **b - 46**

The contents of this volume is as follows: A review of some aspects of zooplankton research, by F. S. Russell. Further investigations upon the photosynthesis of phytoplankton by constant illumination by H. Höglund and S. Landberg. The continuous plankton recorder: a new method of survey, by A. C. Hardy. Die Ergebnisse der internationalen hydrographischen Beobachtungen im Kattegat im August 1931, von B. Schulz.

**Conseil Permanent International pour l'Exploration de la Mer** - Procès-verbaux des Réunions [*Relationes Consessuum*]. (En franç. et en angl.). Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 1, 1-62. Copenhague (1936). **b - 47**

Liste des délégués à la 29ème Réunion. Recommandations du Comité Consultatif; Programmes et rapports des Comités des Secteurs (Nord-Est; Nord-Ouest; Atlantique; Baltique; de la Mer du Nord et du Secteur de transition). Programmes et rapports des Comités: Hydrographique, Statistique, du Plancton, du Saumon et de la Truite, de la Baleine. Règles concernant les Publications.

**Conseil Permanent International pour l'Exploration de la Mer** - Rapport Administratif (1935-1936), Appendices [*Relatio ad administrationem pertinens (1935-1936). Appendices*]. Cartes, fig., Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème et 3ème partie, 1-25. Copenhague (1936). **b - 48**

Comptes rendus, séances, travail du Bureau Central, Publications etc. Rapports des Comités des Secteurs et des Comités Scientifiques. - Appendices: Six travaux sur courants, plancton et harengs (en anglais).

**Instytut Imienia Nenckiego** - Stacja morska w Helu [*Statio maritima in* Hel]. 2 pl. h. t., Inst. im. Nenck. Towarz. nauk. Warsz. 1928-1935, 60-65. Warszawa (1936). **b - 49**

Fondation, description, travaux et publications.

**Lancashire Sea-Fisheries Laboratory** - James Johnstone Memorial Volume [*Volumen redactum in memoriam Jacobi* Johnstone]. 348 pp., Univ. Press. Liverpool (1934). **b - 50**

This volume has been prepared to commemorate the death of James Johnstone. It contains articles of different authors dealing with physical and biological phenomena of the sea.

**Marine Biological Association of the United Kingdom** - Report of the Council for 1935 [*Consilii relatio pro A. 1935*]. Journ. Mar. Biol. Ass., n. ser., XXI, 1, 445-471. Plymouth (1936). **b - 51**

The Council and the officers. The laboratory. The Aquarium. The ship and the motor-boat. The staff. Investigators. The scientific work of the staff. The library. Publications. Finance. Annual subscriptions.

**Museum of Comparative Zoology at Harvard College** - Annual Report of the Director for 1935-1936 [*Relatio annua a Directore redacta A. 1935-1936*]. Ann. Rep. Mus. Comp. Zool. Harvard College for 1935-1936, 1-67. Cambridge U.S.A. (1936). **b - 52**

Reports on Marine Invertebrates, Oceanography, Mollusks, Fishes, fossil Echinoderms, Coelenterates, Sponges and Worms, Crustaceans, Publications.

**Scottish Marine Biological Association** - Annual Report 1935-36 [*Relatio annua 1935-36*]. 24 pp., Scott. Mar. Biol. Ass., Ann. Rep. 1935-1936. Glasgow (1936). **b - 53**

Office-Bearers 1936-37. Government grant. Research. Educational work. Workers at the station. Publications. Museum, aquarium and accessories, Staff, membership, subscribing bodies. Finance.

**Scottish Marine Biological Association** - Director's Report [*Directoris relatio*]. Scott. Mar. Biol. Ass., Ann. Rep., 1935-36, 6-9. Glasgow (1936). **b - 54**

Research: Herring; Plankton; Composition of the food of fish.

**An.** - Maurice Philbert [*Necrologia*]. Bull. Inst. Océanogr., 708, 16. Monaco (1936).

( — ) Bull. Lab. Marit. Dinard, XV, 8-9. Rennes (1936). **b - 55**

Notice nécrologique de M. Philbert, spécialiste dans l'étude des Hydraires.

**An.** - L'Istituto di Ricerche Biologiche di Rodi [*Institutum pro investigationibus biologicis Rhodos*]. 3 fig., Ric. Scient., Ser. 2, VII, 3/4, 1-6. Roma (1936). **b - 56**

Inizio del funzionamento di questo istituto capace di offrire agli studiosi la possibilità di dedicarsi sul posto allo studio della biologia marina in rapporto alla pesca, della fisiologia e della chimica.

# METHODICE

## Apparatus oceanographici et scientifici - Subsidia technica - Microscopia - Microphotographia.

**Chatton E. & Lwoff A.** - Techniques pour l'étude des Protozoaires, spécialement de leurs structures superficielles (cinétome et argyrome) [*Technica ad Protozoaria studenda praecipue quoad eorum structuras superficiales*]. Bull. Soc. Franç. Microsc., V, 1, 25-39. Paris (1936). **b - 57**

Notions nouvelles sur les éléments de la structure superficielle des Ciliés. Méthodes: examen du matériel vivant, fixations, colorations, les étalements dans la gélose, la micro-inclusion dans la gélose-paraffine, les imprégnations argentiques.

**Comandon** - Pour photographier les poissons [*Apparatus ad pisces photographandos*]. 10 figs., Rech. Invent., XVII, 256, 1-6. Bellevue (1936). **b - 58**

Détails techniques d'un dispositif d'éclairage pour la photographie des poissons d'un aquarium.

**Crozant (de) L.** - Nouvelles formules pour la détermination des grossissements utiles minima et maxima des objectifs de microscope [*Formulae novae ad amplitudines determinandas quoad utilitates maximas et minimas in objectivis microscopicis*]. Bull. Soc. Franç. Microsc., V, 1, 8-17. Paris (1936). **b - 59**

Examen des objectifs achromatiques à sec, grossissement des systèmes à immersion, application de la nouvelle méthode.

**Hall R. P., Johnson D. F. & Loefer J. B.** - Une méthode pour compter les Protozoaires [*Methodus ad Protozoaria numeranda*]. Trans. Amer. Microsc. Soc., LIV, 4, 298-300. Lancaster, Pa. (1935). **b - 60**

La méthode consiste dans l'utilisation d'une cellule de Sedgwick-Rafter circulaire de 1 cm³ de capacité.

**Hardy A. C.** - The Plankton Indicator. Experiments, Test, and now Ready for general Use [*Indicator planctonicus. Experientiae et comprobationes ad eum utendum*]. Fish Trad. Gaz., 12-V-34, 18-19. London (1934). **b - 61**

**Hardy A. C.** - The Continuous Plankton Recorder: A New Method of Survey [*Apparatus registrator continuus substantiae planctonicae. Investigationis ratio nova*]. 10 figs., 1 map, Cons. Expl. Mer, Rapp. & Pr. Verb., XCV, 36-47. Copenhague (1935-36).

( — ) Discovery Report 11, 457-510. London (1936). **b - 62**

Description of the construction and work of a machine, which can be towed at any required depth below the surface, and, by continually sampling, mile by mile as the ship proceeds on her course, enabling one to measure the size, density and frequency of patches, and compare the irregularity of distribution in different areas. Examples of applying the new methods and results obtained during wide and repeated surveys of the sea using the S. S. « Albatross » in June, 1932, in the North Sea, and following years.

**Krogh A. & Spärck R.** - On a new Bottom-Sampler for Investigation of the Micro Fauna of the Sea Bottom with Remarks on the Quantity and Significance of the Benthonic Micro Fauna [*Instrumentum novum ad specimina colligenda microfaunae in fundo marino jacentis. Notae adjunctae sunt de significatione microfaunae benthonicae*]. Kgl. Dansk. Vidensk. Selsk. Biol. Medd., XIII, 4, 1-12. København (1936). **b - 63**

This apparatus facilitates thorough investigations of the micro fauna on soft bottom making out communities on a quantitative basis similar to the communities of the macro fauna described by Petersen. It will also be possible to determine the importance of the micro fauna to the metabolism at different depths and in different localities in the waters.

**Lea E. & Went A. E.** - Plastic Copies of Microscopical Reliefs, especially of Fish Scales [*Methodus reproductionis per plasticam quoad microscopicas relevationes et particulatim piscium squamas*]. 6 pls. o. t., Hvalråd. Skr. Scient. Results, Mar Biol. Res., 13, 1-18. Oslo (1936). **b - 64**

Description of a method for making copies of microscopical reliefs, used in Norwegian herring investigations in 1928.

**Lejeune M.** - Sur un moyen d'isoler les microfossiles inclus dans le silex [*Quo modo liberantur microfossiles in silice praeclusi*]. C. R. Acad. Sc., CCIII, 7, 435-437. Paris (1936). **b - 65**

Cette méthode intéresse spécialement la paléo-océanographie.

**Mariani M.** - Due nuovi dispositivi di tecnica microscopica [*Apparatus duo novi pro technica microscopica*]. 4 fig., Ann. Clin. Odont., II, 114-130. Roma (1936). **b - 66**

L'A. descrive due apparecchi per la tecnica istologica (Zambelli, Torino): il primo è un vetro Jena per fissazione, lavaggio in acqua corrente, decalcificazione, disidratazione e rischiaramento senza toccare il pezzo; il secondo è una scatola per l'inclusione definitiva in paraffina che permette di ottenere anche due, tre, quattro blocchi contemporaneamente. Metodo per il raffreddamento rapido della paraffina e per il recupero del toluolo e dell'alcool puro.

**Maxia C.** - Un mezzo semplicissimo per conservare a lungo uova di riccio di mare in segmentazione [*Persimplex modus ad ova Echinorum, quae sint in segmentatione, servanda perdiu*]. Scritti Biol. racc. da L. Castaldi, X, 177-179. Cagliari (1935). **b - 67**

L'A. è riuscito a conservare per 4 anni in perfette condizioni di forma, struttura e colorito, uova di *Paracentrotus lividus* in varie fasi di segmentazione, fissandole in liquido del Pacini, diluito in acqua di mare.

**Pora E.** - Un nouvel appareil pour la contention et la saignée de nombreux Téléostéens marins et d'eau douce [*Apparatus novus ad Teleosteos marinos et ex aqua dulci continendos pro sanguinis detractione*]. 3 fig., Bull. Inst. Océanogr., 699, 1-4. Monaco (1936). **b - 68**

Par cet appareil on peut prélever du sang pur et en quantité suffisante pour les déterminations chimiques.

**Smith D. C.** - A Method for recording Chromatophore Pulsations in Isolated Fish Scales by means of a photoelectric Cell [*Methodus ad registrandas pulsationes chromatophoricas in squamis sejunctis piscium per cellulam photoelectricam*]. 1 fig., Journ. Cell. & Comp. Physiol., VIII, 1, 83-87. Philadelphia (1936). **b - 69**

# ANATOMIA ET PHYSIOLOGIA.

## Cytologia et histologia.

**Balli A.** - Le cellule a granuli cromaffini dell'intestino di *Patella vulgata* [*Cellulae cum granulis chromaffinibus, in intestino speciei « Patella vulgata »*]. Boll. Zool., VII, 1. 25-32. Napoli (1936). **b - 70**

L'A. studia le caratteristiche morfologiche ed istochimiche delle cellule cromaffini nell'intestino di *Patella vulgata*, usando vari fissativi: liquido di Regaud, formalina al 10 %, alcool, sublimato acetico, liquido Susa, liquido di Zenker. Nega l'esistenza di una qualsiasi omologia fra queste cellule e le enterocromaffini dei vertebrati.

**Biecheler B.** - Existence d'une cyclose chromatique chez les Péridiniens [*De cyclosi chromatica in Peridineis*]. C. R. Acad. Sc., CCI, 11, 503-505. Paris (1935). **b - 71**

Les observations de l'A. ont été faites sur *Peridinium balticum*, *P. sociale* et *Gyrodinium fissum*. En tâchant de reconnaître les causes de la cyclose chromatique chez ces espèces l'A. est d'opinion qu'il s'agit là d'une mise en jeu de forces physiques résultant sans doute d'échanges caryoplasmatiques. Ce qui paraît certain c'est que la cyclose chromatique est en relation avec la division du noyau.

**Bignardi C.** - Contributo alla conoscenza istochimica delle cellule testacee di *Ciona intestinalis* [*Contributio in cognoscendas ex histochemica cellulas testaceas speciei « Ciona intestinalis »*]. 1 fig., Pubbl. Staz. Zool. Napoli, XV, 2, 194-197. Napoli (1936). **a - 72**

Composizione chimica dei granuli contenuti nelle cellule testacee di *Ciona*, che devono essere costituiti da una sostanza a funzioni fenoliche, indizio di un processo di escrezione.

**Blake I. H.** - Studies on the Comparative Histology of the Digestive Tube of certain Teleost Fishes. III. A Bottom-feeding Fish, the Sea Robin (*Prionotus carolinus*) [*De histologia comparata quoad tubum digestionis aliquorum piscium Teleosteorum. III. Piscis quidam qui a fundo marino alimentum capit. Species « Prionotus carolinus »*]. 7 fig., Journ. Morphol., LX, 1, 77-102. Philadelphia (1936). **b - 73**

Effect of amount of food present in the tube on extent of mucosal folding; histological transitions from one region of the tract to another, particularly as regards epithelia; histology of peptic glands in the cardiac division of the stomach; origin and development of mucosal goblet cells; comparisons between the histology of the pyloric caeca and that of the adjacent intestine from which they arise, together with a detailed account of the histology of the former. (From A:s abstr.).

**Chadefaud M.** - Le Cytoplasme des Algues Vertes et des Algues brunes. Ses éléments figurés et ses inclusions [*De cytoplasmate Algarum. Constituentes morphologici et inclusiones*]. 33 figs., 38 pl. h. t., Rev. Algol., VIII, 1/2, 6-264. Paris (1936). **b - 74**

Morphologie comparée du plastidome des volvocales, des Protococcales, des Chlorophycées pluricellulaires, des Siphonées et des Conjuguées. Les constituants du plastidome des Chlorophycées: stroma mitochondrial, complexe pigmentaire, inclusions amylacées et carotinifères, pyrénoïdes et stigma. Le chondriome et le vacuome des Chlorophycées. Étude des éléments figurés et des inclusions du cytoplasme chez les Xantophycées et les Algues brunes; étude particulière de la « leucosine » des Chrysophytes et des « physodes » chez les Phéophycées. Le protoplasme des Algues et l'architecture du contenu cellulaire. Étude du cytoplasme fondamental. Bibl.

**Dehorne A.** - Notes histologiques sur *Sigalion*, *Nephthys* et *Sabellaria* [*« Sigalion », « Nephthys » et « Sabellaria »: Notae histologicae*]. 25 fig., Mém. Mus. R. Hist. Nat. Belgique, Sér. 2, 3, 680-700. Bruxelles (1936). **b - 75**

Présentations des particularités reconnues par l'A. dans la structure histologique de *Sigalion mathildae*, *Nephthys hombergii*, *Sabellaria spinulosa*. Chez *Sigalion* et *Sabellaria* le mésoderme syncytial si abondant représente à la fois l'ensemble des cellules d'origine du sang et l'ensemble des tissus histogénétiques. *Nephthys* représente un type intermédiaire dont les conditions sont semblables à celles des Phyllodociens.

**Duboscq O. & Tuzet O.** - Les Amoebocytes et les cellules germinales des éponges calcaires [*De amoebocytis deque cellulis germinalibus spongiarum calcarearum*]. 10 figs., Mém. Mus. R. Hist. Nat. Belgique, Sér. 2, 3, 209-226. Bruxelles (1936). **b - 76**

Observations sur les cellules germinales des Éponges hétérocoeles: *Sycon raphanus* et *Grantia compressa* et des Éponges homocoeles: *Clathrina*, *Leucosolenia*, *Leucandra*. Présence des amoebocytes éosinophiles et plusieurs sortes d'amoebocytes hyalins; ceux-ci comprennent les mégacytes qui n'ont pas de relation avec les cellules germinales tandis que les amoebocytes hyalins à gros noyau peuvent s'identifier avec les cellules germinales ou archéocystes. Les amoebocytes ont une origine indépendente, soit des cellules flagellées de la larve, soit des choanocytes de l'Éponge développée.

**Froutin, Gholam-Hossein** - Contribution à l'étude des « Rundzellen » de *Mytilus edulis* [*Contributio in studendas cellulas rotundas speciei « Mytilus edulis »*] .Bull. Soc. Zool. France, 61, 240-243. Paris (1936). **b - 77**

Analyse des « Rundzellen ». Leur développement. Recherches de Derrien, Turchini, Zacharias et Millon.

**Graupner H. & Fischer J.** - Das Tintendrüsenepithel von *Sepia* vor, während und nach der Pigmentbildung [*De epithelio in glandula nigra Sepiae, ante, inter et post pigmenti formationem*]. 5 Abb. Ztschr. f. Zellf. u. mikrosk. Anat., XXI, 329-341. Berlin (1934). **b - 78**

Mit der Pigmentbildung ist eine Steigerung des Stoffwechsels verbunden. Zwischen dem Melanin und dem Chromatin besteht, kein direkter morphologisch fassbarer Zusammenhang; ebensowenig lässt sich ein solcher zwischen Melanin und Nukleolarsubstanz erkennen. Das « Chondriom » (Turchini), bzw. Ergastoplasma, scheint bei der Pigmentbildung eine wesentliche Rolle zu spielen. (Vf.).

**Ishida J.** - Ciliated Intestinal Epithelium in Teleost [*Epithelium ciliatum intestinale in Teleosteis*]. (In Jap). Annot. Zool. Jap., XV, 2, 158-160. Tokyo (1935). **b - 79**

**Kato K.** - On the Intestinal Epithelium of *Nomeus gronovii* [*De epithelio intestinali speciei « Nomeus gronovii »*]. Annot. Zool. Jap., XV, 3, 190-193. Tokyo (1935). **b - 80**

**Knaben N.** - Ueber Entwicklung und Funktion der Testazellen bei *Corella parallelogramma* Müll [*De accretione et functione cellularum quae sunt in ovis pro tegumine in specie « Corella parallelogramma »*]. 16 Abb., 1 Taf., Bergens Mus. Årb., Naturv. r., I, 1-33 Bergen (1936). **b - 81**

Testazellen nennt man einige Zellen, die gewöhnlich im Eifollikel bei den Ascidien, zwischen dem Chorion und der Eizelle zu finden sind. Kurze Uebersicht der bisherigen Auffassungen über die Entstehung und Funktion dieser Zellen. Bericht über das Studium « in vitro »: Die Ergebnisse bestätigen die Annahme des Vf:s, dass die Testazellen ein das Chorion verdauendes Enzym liefern, das eine Weiterentwicklung der früher in ihrer Entwicklung stagnierten Testazellen zulässt.

**Mangenot G.** - Remarques sur la cellule des algues [*Observationes circa cellulas Algarum*]. Assoc. Franc. Avancement Sc., 311-315 Nantes (59. sess. Nantes, 22-27, VII, 1935). (1935). **b - 82**

Bref résumé des résultats des recherches précédentes de l'A. sur les substances de la cellule des Algues vertes, brunes et rouges.

**Mitchell H. D.** - The Microscopic Structure of the Shell and Ligament of *Cardium* (*Cerastoderma*) *corbis* Martyn [*Structura microscopica conchae et ligaminis speciei « Cardium corbis »*]. Journ. Morphol., LVIII, 211-220. Boston (1935). **b - 83**

**Montalenti G.** - Analisi citologica della fecondazione e dell'attivazione artificiale delle uova di lampreda [*Analysis cytologica fecundationis et activationis artificialis ovorum Lampetrarum*]. 2 tav. f. t., Mem. R. Acc. It., Cl. Sc. Fis. Mat. Natur., VII, 17, 191-209. Roma (1936). **b - 84**

L'A. descrive l'azione di sostanze chimiche sulle uova non fecondate di *Lampetra fluviatilis* L. e di *Entosphenus wilderi* (Gage). Studia poi la citologia della fecondazione dell'uovo di *Lampetra*, descrivendo i movimenti dei pronuclei e del plasma polare, e con questi paragona i fenomeni che si osservano nelle uova artificialmente attivate. (Dall'A.).

**Niiyama H.** - The Chromosomes of the Edible Crab, *Paralithodes camtschatica* [*Chromosomata speciei « Paralithodes camtschatica »*]. 3 fig., Journ. Fac. Sc. Hokkaido Imp. Univ., IV, 59-65. Sapporo (1935). **b - 85**

Investigation on spermatogenesis of *P. camtschatica* and enumeration of 208 chromosomes. Absence of the sexual chromosomes.

**Profokieva A.** - On the Chromosome Morphology of certain Pisces [*De morphologia chromosomatum aliquorum Piscium*]. 12 fig., Cytologia, V, 498-506. Tokyo (1934). **b - 86**

The A. enumerates 60 chromosomes in *Salmo salar;* 84 in *S. fario* and 80 in *Coregonus lavaretus baeri;* their morphology.

**Simon S.** - Quelques particularités concernant la perméabilité et la structure du cytoplasma de l'oeuf de Pholade *Barnea candida* [*Peculiaritates quaedam de permeabilitate et structura cytoplasmatica quoad ovum speciei « Barnea candida »*]. Mém. Mus. R. Hist. Nat. Belgique, Sér. 2, 3, 977-996 Bruxelles (1936). **b - 87**

Observations morphologiques à l'ultramicroscope sur l'œuf vierge et fécondé de la Pholade. Comportement des œufs en solution hypotonique d'eau de mer diluée à des degrés variables et examen des conditions de pénétration de l'eau. Dissociation des phénomènes qui relèvent directement de la membrane et de ceux qui dépendent exclusivement de la structure du cytoplasmes et varient lors de la maturation. Anomalies provoquées expérimentalement.

**Suzuki S.** - On the Ganglion Cells in the Heart of the Pearl Oyster, *Pinctada martensi* Dunker [*De cellulis gangliaribus in corde speciei « Pinctada martensi »*]. Scient. Rep. Tohoku Imp. Univ., Ser. 4, Biol., IX, 111-115. Sendai (1935). **b - 88**

**Suzuki S.** - On the Presence of Ganglion Cells in some Crustacean Hearts [*De cellulis gangliaribus in corde aliquorum crustaceorum*]. Scient. Rep. Tôhoku Imp. Univ., Ser. 4, Biol. X, 417-426. Sendai (1935). **b - 89**

**Tuzet O.** - Sur la spermatogenèse de *Carinaria Lamarcki* Per. Lesr. [*De spermatogenesi speciei « Carinaria Lamarcki »*]. 4 fig., Arch. Zool. Exp. et Gén., LXXVIII, 2, 68-78. Paris (1936). **b - 90**

L'A. a observé une spermatogenèse non vraiment atypique, mais une ébauche de développement atypique qui n'aboutit pas. Description de la spermatogenèse typique et atypique. Les Hétéropodes sont de véritables Prosobranches.

**Vialli M.** - Ricerche preventive sulle cosidette « cellule a cloruri » secondo Keys e Willmer nelle branchie di anguilla [*Investigationes priores in « cellulas chloruratas », ut dicuntur, in anguillarum branchiis, secundum* Keys *et* Willmer]. Arch. Zool. It., XXII, 2, 25-31. Torino (1936). **b - 91**

L'A. studiando comparativamente le branchie di anguille, raccolte in acqua marina e in acqua dolce, trova che nelle prime sono presenti le cellule a cloruri, mentre tali elementi mancano nelle seconde. Importanza ecologica, fisiologica e anatomo comparativa del reperto - (dall'A.).

## Apparatus musculorum atque apparatus scheletricus. - Quaestio de motu. - Vesica natatoria.

**Acrivo C.** - Ueber die Neubildung von Kiemenlamellen bei Ganoiden und Teleostiern [*De nova formatione lamellarum branchialium in Ganoideis et Teleosteis*]. 2 Abb., Zool. Anz., CXIV, 101-105. Leipzig (1936). **b - 92**

Der Ausgangspunkt für die Neubildung der Kiemenlamellen ist das embryonale Bindegewebe. Diesbezüglich sind zwischen den Selachiern einerseits und den Ganoiden und Teleostiern andererseits grundlegende Unterschiede vorhanden. Während sich bei ersteren aus dem definitiven Bindegewebe ein sekundäres embryonales Gewebe bildet, das an der Neubildung teilnimmt, haben wir es bei Teleostiern und Ganoiden mit einem primären Embryonalgewebe zu tun. (Vf.).

**Bahrdt H.** - Beiträge zur Entwicklungsgeschichte der Sirenenflosse [*Contributio in studendam progressionem pinnarum in Sirenidis*]. 35 Abb., Jen. Ztschr., LXVIII, 193-276. Jena (1934). **b - 93**

Die Untersuchungen beziehen sich hauptsächlich auf die verschiedenen Embryonalstadien von *Manatus*.

**Budker P.** - Sur une ostéoclasie déterminant la chute des écailles placoïdes, ou dents cutanées des Squales [*De osteoclasia quae determinat casum in Squalis squamarum placoidalium quae etiam nuncupantur dentes cutanei*]. C. R. Acad. Sc., CCII, 6, 505-507. Paris (1936). **b - 94**

L'A. décrit un phénomène qu'il considère comme étant d'ordre général, par lequel s'effectuent la destruction et la chute des dents dermiques des squales. Il a étudié le processus de cette ostéoclasie dans toutes ses phases

chez *Catulus caniculus* (L.), mais il prétend que les différents stades qu'il décrit dans sa Note, ont été retrouvés, avec quelques variantes de détail n'affectant d'ailleurs en rien l'ensemble, chez différentes espèces des Sélaciens.

**Budker P.** - Sur la destruction et la chute des dents mandibulaires des Squales [*Destructio et casus dentium mandibularium in squalis*]. C. R. Acad. Sc., CCIII, 5, 386-387. Paris (1936). **b - 95**

L'étude a été portée sur *Galeocerdo arcticus* (Faber), trois espèces de *Carcharinus* et *Hypoprion brevirostris* Poey. L'A. est d'avis que le processus de déstruction aussi décrit ici est semblable à celui déjà constaté chez les denticules dermiques.

**Denil G.** - Qualités nautiques du poisson; méthodes locomotrices; capacités; etc. [*Piscis peculiaritates nauticae, motus rationes, capacitates, etc.*]. Ann. Trav. publ. Belgique, XXXVII, 4, 507-583; 5, 708-746. Bruxelles (1936). **b - 96**

Qualités nautiques et locomotion du poisson fuselé. L'anguille. Analyse des actions qui contrarient la nage du poisson, des résistances diverses qui lui sont opposées dans son mouvement au travers du fluide; travaux expérimentaux anciens et expériences nouvelles. Tableau des résistances dues aux vitesses comprises entre 1 et 6 m. par seconde, pour des poissons fuselés de taille allant de 10 à 120 cm. Détermination de la vitesse limite du poisson. Démonstration expérimentale de l'action de la pente sur les corps flottants.

**Edgeworth F. H.** - The Cranial Muscles of Vertebrates [*De cranii musculis Vertebratorum*]. 9 + 493 pp., 193 pls., 841 figs. Macmillan Co. New York (1935). **b - 97**

A. states that he has « attempted to give a summary of the knowledge that has resulted from investigations made during the last century and a half on comparative anatomy and embryology of cranial muscles of Vertebrates and of their motor nerves and used it to determine as far as possible the primitive cranial musculature and lower motor neurones in each of the Vertebrate phyla ».

**Fauré - Fremiet E.** - Les baguettes cornées des nageoires des Sélaciens [*De bacillis corneis pinnarum in Selachiis*]. C. R. Ass. Anat., XXX, 184-188. Paris (1935). **b - 98**

L'A. confirme les études de Krukenberg: les rayons cornés sont constitués par une substance voisine de l'élastine, appelée élastoïdine. Propriétés physiques de ces formations.

**Fontaine M.** - Le Calcium sanguin chez les Cyclostomes et les Poissons, ses rapports avec l'état d'ossification du squelette [*De calcio sanguineo in Cyclostomatis et Piscibus, eiusque correlationibus cum ossificatione scheletrica*]. Arch. Int. Physiol., XL, 374-384. Liège (1935). **b - 99**

Étude du rapport du calcium absorbable au calcium total qui, étant lié à l'état du squelette, est bas chez les Cyclostomes, un peu plus élevé chez les Sélaciens et plus fort chez les Téléostéens.

**Franz G.** - Ueber die reflektorische Regulierung des Gasgehaltes in der Schwimmblase der Fische [*De regulatione reflexa continentiae gasosae in vesica natatoria Piscium*]. Zool. Anz., Suppl. 9, 290-291. Leipzig (1936). **b - 100**

Vorläufige Mitteilung. Analyse der reflektorischen Vorgänge des Gasspuckens um eine Methode zur Klärung einiger Fragen der Schwimmblasenphysiologie zu erhalten.

**Friedrich H. & Langeloh H. P.** - Untersuchungen zur Physiologie der Bewegung und des Hautmuskelschlauches bei *Halicriptus spinulosus* und *Priapulus caudatus* [*Investigationes in physiologiam motus et in apparatum muscularem pellis in speciebus « Halicriptus spinulosus » et « Priapulus caudatus »*]. Biol. Zentral., LVI, 249-260. Leipzig (1936). **b - 101**

**Garrault H.** - Développement des fibres d'élastoïdine (actinotrichia) chez les Salmonides [*De progressione quoad fibras elastoidineas in Salmonidis*]. 18 fig., Arch. Anat. Microsc., XXXII, 1, 105-137. Paris (1936). **b - 102**

Les fibres en question sont les raies cornées qui appuient les nageoires des embryos de poisson et qui subsistent chez les Sélaciens adultes et chez certains Téléostéens. Structure et formation des fibres.

**Gray J.** - Studies in Animal Locomotion. IV. The Neuromuscular Mechanism of Swimming in the Eel [*Inquisitiones de animali locomotione. IV. Mechanismum neuromusculare quoad Anguillarum natationem*]. Journ. Exper. Biol., XIII, 170-180. Cambridge (1936). **b - 103**

The locomotory rhythm along the body of *Anguilla vulgaris* is determined by the intrinsic activity of the spinal cord when conditioned by stimuli of either peripheral or central origin. If the intensity of the applied stimuli be increased the direction of the resultant muscular waves is reversed. The mechanisms which determine the locomotion of *Anguilla* are similar to those which control a stepping rhythm in the limbs of mammals.

**Gray J.** - Studies in Animal Locomotion. V. Resistance Reflexes in the Eel [*Inquisitiones de animali locomotione. V. Reflexus resistentiae in « Anguilla »*]. Journ. Exper. Biol., XIII, 181-191. Cambridge (1936). **b - 104**

Analysis of the resistance reflexes. These reflexes are used by the intact eel when escaping from a confined environment.

**Gray J. & Sand A.** - The Locomotory Rhythm of the Dogfish (*Scyllium canicula*) [*Rhythmus locomotorius speciei « Scyllium canicula »*]. Journ. Exper. Biol., XIII, 200-209. Cambridge (1936). **b - 105**

Experiments of acceleration or inhibition of the persistent rhythm characteristic for the spinal dogfish. Localised stimuli elicit co-ordinated responses from all intact segments of the body, although at least 12 intermediate segments may have been deprived of their spinal innervation, so long as the spinal cord is intact. If two regions of the body are isolated from each other by a second transection co-ordinated responses occur no longer; if both such regions are of adequate length, each exhibits an independent spontaneous rhythm and responds indipendently to peripheral stimulation.

**Harris J. E.** - The Rôle of the Fins in the Equilibrium of the Swimming Fish: Windtunnel Tests on a Model of *Mustelus canis* (Mitchill) [*Momentum pinnarum quoad aequilibrium piscis natantis. Experimenta in specie « Mustelus canis »*]. Journ. Exper. Biol., XIII, 476-494. London (1936). **b - 106**

**Hollister G.** - Caudal Skeleton of Bermuda Shallow Water Fishes. I. Order *Isospondyli*: *Elopidae, Megalopidae, Albulidae, Clupeidae, Dussumieriidae, Engraulidae* [*Scheletrum caudae piscium in aquis demissis insularum* Bermuda *viventium*].

52 figs., 1 pl., 1 table. Zoologica, XXI, 4, 23, 257-290. (Contr. Bermuda Biol. Stat. 49, St. Georges West, Bermuda), New York (1936). **b - 107**

This paper refers principally to adult species. Caudal fin terminology. Key. Similarities and differences. Bibl.

**Holst (von) E. & Deryck W. Le Mare** - Bausteine zu einer vergleichenden Physiologie der lokomotorischen Reflexe bei Fischen. I. Mitt. *Crenilabrus-Labrus, Sargus, Uranoscopus* [*Fundamenta physiologiae comparatae quoad reflexus motorios piscium. Communicatio I*ª]. Ztschr. vgl. Physiol., 23, 223-236. Berlin (1936). **b - 108**

**Kimura Kinosuke** - On the Manner of Swimming of Sardines in a confined Space [*Modus natandi in speciebus « Sardinia melanosticta » et « Engraulis japonicus » in area circumscripta*]. (In Jap.; Engl. rés.). 3 figs., 3 tabl., Bull. Jap. Soc. Scient. Fish., III, 2, 87-92. Tokyo (1934). **b - 109**

The experiments described here concern the motion (velocity and direction in relation to the radial distance) and the layer of swimming, i. e. the number of fish and the frequency distribution of their body-length in mm-classes for each of the six compartments in which the bait-net had been divided.

**Krejci - Graf K.** - Beobachtungen über den Flug fliegender Fische [*Observationes de volatu piscium volantium*]. 3 Abb., Natur u. Volk, LXVI, 12, 623-625. Frankfurt a. M. (1936). **b - 110**

Bericht über die vom Vf. im Stillen und Indischen Ozean gemachten Beobachtungen. Analyse der Bewegungen auch an Hand von Abbildungen und schematischen Zeichnungen.

**Magne A.** - Recherches sur la variabilité des crêtes de la mandibule d'*Euparypha pisana* (Müller). [*Investigationes in variabilitatem marginum mandibularium speciei « Euparypha pisana »*]. 18 fig., tabl., Bull. Biol. d'Arcachon, XXXII, 2, 155-172. Bordeaux (1935). **b - 111**

Recherches sur plus de 500 exemplaires: poids, longueur de la mandibule, nombre de crêtes et plantes nourricières. L'A. conclut que la variabilité des crêtes de la mandibule est d'ordre purement anatomique sans dépendre de la nourriture, de l'âge ou d'autres facteurs non seulement chez *Euparypha pisana* mais aussi chez tous les *Helicinae*.

**Marceau F.** - Sur quelques propriétés spéciales des Muscles adducteurs des Mollusques acéphales en rapport avec leur disposition et leur structure [*Nonnullae peculiaritates quoad musculos adductores in Molluscis acephalis pro eorumdem dispositione et structura*]. 19 figs., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 941-975. Bruxelles (1936). **b - 112**

Rôle des muscles adducteurs des Acéphales admirablement organisés pour maintenir longtemps leurs valves fermées: aussi leur masse est très grande par rapport à la masse totale du corps. Données relevées chez *Mytilus edulis, Tapes decussata, Ostrea edulis, Pecten varius.* Fibres à fibrilles parallèles à leur axe et présentant des anastomoses latérales entre elles, fibres à fibrilles lisses enroulées en hélices, fibres à fibrilles striées parallèles à leur axe et leurs compositions. Fonctions des muscles adducteurs dans leur ensemble et rôle spécial de chacune de leurs parties constitutives. Propriétés spéciales des parties nacrées des muscles adducteurs. Contractilité.

**Nills C. A.** - Source of Propulsive Power used by Flying Fish [*De origine quoad impetum propulsorium piscium volantium*]. Science, LXXXIII, 2143, 80. New York (1936). **b - 113**

A. emphasizes the rôle of the tail to gain impetus for the flight. See also following comments on this subject in Science, 2150, 260-262.

**Neu W.** - Hydromechanische Untersuchungen an Fischen zur Lösung des Formproblems [*Investigationes hydromechanicae in pisces ad solvendum formae problema*]. Int. Rev. ges. Hydrobiol. u. Hydrogr., XXXII, 295-315. Akad. Verlagsg. Leipzig (1935). **b - 114**

Zoologisches System der Formen (« Systematik lebender Gefüge », Woltereck), Disposition für die hydromechanischen Untersuchungen (nach Osborn): Auftrieb im Wasser; Wasserwiderstand, Fortbewegung. Auftrieb und Schwere im Wasser, spezifisches Gewicht, Uebergewicht. Wasserwiderstand und Form: Fischtypen, Schwimmgeschwindigkeit, Formanalyse, Schleppversuche. Fortbewegung: Schwerpunkt, Stabilität, Schwimmbewegungen. Arbeitsplan. Bibl.

**Pantin C. F. A.** - On the Excitation of Crustacean Muscle. III. Quick and Slow Responses [*Excitatio musculorum Crustaceorum. III. Reactiones veloces ac tardae*]. Journ. Exper. Biol., XIII, 148-158. Cambridge (1936). **b - 115**

Results of experiments of interjection in the claws of *Maia*. Review of cases where a « quick » and « slow » contractile system seem to exist in the same crustacean muscle.

**Pantin C. F. A.** - On the Excitation of Crustacean Muscle. IV. Inhibition [*Excitatio musculorum Crustaceorum. IV. De inhibitione*]. Journ. Exper. Biol., XIII, 159-169. Cambridge (1936). **b - 116**

The definite treshold for inhibition in the muscles of *Carcinus mœnas* is normally higher than the treshold for excitation. Discussion on the causes and functional significance of inhibition.

**Parker G. H.** - Direction and Means of Locomotion in the Regular Sea-urchin *Lytechinus* [*Directio apparatusque motorii speciei « Lytechinus »*]. 6 figs., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 197-208. Bruxelles (1936). **b - 117**

Relation between the direction of the locomotion of *Lytechinus* and its structural axes. It creeps by means of its spines and ambulacral tube-feet. Velocity on a horizontal surface and on a vertical plate.

**Patanè L.** - Ricerche sul sistema tegumentale degli Isopodi [*Inquisitiones de apparatu tegumentali Isopodorum*]. 3 fig., 1 tav., Arch. Zool. It., XXIII, 209-240. Napoli (1936). **b - 118**

L'A. studia il tegumento in alcuni Isopodi terrestri e marini e le ghiandole tegumentali in *Porcellio laevis*. L'esoscheletro presenta due zone distinte; una interna, a struttura lamellare, e una esterna; quest'ultima è laminare in *P. laevis* e *Armadillidium vulgare*, ed è omogenea in *Ligia italica, Idothea baltica* e *Anilocra edwardsi*. Costituzione citologica ed anatomica delle ghiandole tegumentali in *P. laevis* loro distribuzione negli epimeri del pereion e del pleon e loro attività secretoria per la ricostruzione dell'esoscheletro ad ogni muta. Composizione del secreto. Fasi della muta in *P. laevis* e caratteristiche modificazioni di colore della superficie tergale che precedono e accompagnano tale fenomeno.

**Petit G. & Budker** - Contribution à l'étude de la différenciation des dents cutanées, liée à la présence de cryptes sensorielles, chez quelques espèces de Sélaciens [*Contributio in studendam dif-*

*ferentiationem quoad dentes cutaneos colligatam cum praesentia cryptarum sensorialium in quibusdam speciebus Selaciorum*]. 14 fig., Bull. Inst. Océanogr., 695, 1-44. Monaco (1936). **b - 119**

Étude sommaire et résultat de l'examen des fœtus, des adultes et des peaux des individus adultes, appartenant à 11 espèces différentes de Sélaciens qui ont révélé la présence de spicules ou dents cutanées, différents de ceux qui constituent le revêtement des ces animaux. Ces dents cutanées parfois très apparentes, parfois fort dissimulées, sont analysées dans le présent ouvrage qui se compose des chapitres suivants: (I) nomenclature du matériel, (II) répartition et morphologie des dents cutanées jumelées, (III) étude de la cavité qu'elles recouvrent et de l'organe sensoriel, (IV) résumé des faits acquis et conclusions.

**Petit G. & Budker P.** - Répartition des dents cutanées jumelées chez *Galeorhinus laevis* (Risso) [*De cutaneis dentibus duplicibus in specie « Galeorhinus laevis » quoad distributionem*]. 1 fig., Bull. Mus. Natur. Hist. Natur., VIII, Sér. 2, 4, 334-336. Paris (1936). **b - 120**

Les AA. ont complété une étude antérieure, par la description des dents cutanées de *G. laevis* et la comparaison des différences avec *G. mustelus.*

**Pietschmann V.** - Die Dornen von *Raja clavata* L. [*De spinis speciei « Raja clavata »*]. 1 Abb., Zool. Anz., CXV, 3/4, 109-110. Leipzig (1936). **b - 121**

Die eigenartige Gestalt der Bedornung, insbesondere auf der Innenseite, wird hier auf einem getrockneten Exemplares von *Raja clavata* gezeigt.

**Richardson E. G.** - The physical Aspects of Fish Locomotion [*De aspectibus physicis motuum piscium*]. 8 fig., Journ. Exper. Biol., XIII, 63-73. Cambridge (1936). **b - 122**

Following the investigations of Houssay and de Magnan, A. studies the locomotion with regard to the resistance the fish is submitted to in water, the more complicated case of sinusoidal motion and finally the propulsion caused by a watersport as is used by the *Cephalopodes.*

**Rizzo C.** - Sui movimenti dei teleostei in rapporto con lesioni sperimentali degli apparati periferici di moto e di senso. IV. Lesioni labirintiche [*De motibus Teleosteorum pro lesionibus experimentalibus apparatuum perifericorum motus et sensus. IV. Lesiones labyrintheae*]. 1 tav., Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Mat. Natur., XXIII, ser. 6, 9, 710-713. Roma (1936). **b - 123**

Nei teleostei l'A. ha praticato labirinto-lesioni unilaterali lasciando illesi l'encefalo e i suoi rivestimenti. I disturbi osservati dimostrano che il labirinto ha una fondamentale importanza nella regolazione e conservazione del tono e dell'equilibrio, per cui la sua distruzione unilaterale riproduce con grande esattezza quegli stessi disordini della statica e del movimento osservabili dopo lesioni mesencefaliche e cerebellari.

**Saunderson Campbell E.** - The Early Development of the Chondrocranium of *Salmo salar* [*De priore accretione chondrocranii speciei « Salmo salar »*]. 23 figs., Proc. & Trans. Nova Scot. Inst. Sc., XIX, 1, 121-147. Halifax N. S. (1934-35). **b - 124**

Account of an experimental study of 14 stages, from 3 wks. before hatching to 10 wks. after hatching. Contrarily to the conception of Stöhr no separate anterior center of chondrification was found. Detailed analysis of the process. The cartilage development shown graphically. The decrease in the cartilage development and its possible explanation.

**Shoulejkin V.** - Kinematics of the Dolphin [*Delphini cinematica*]. (In Russ.; Engl. Summ.). 14 figs., Bull. Acad. Sc. URSS, Cl. sc. math. & natur., VII, 4, 651-671. Moscou-Léningrad (1935). **b - 125**

Analysis of the movements of the Dolphin also expressed in equations and figs., comparison with the movements of Fishes and their velocity. The importance of the assymmetry of the Dolphin's head and skull for the rotation compared with the rôle of the second screw in the work of the screw propeller.

**Souche G.** - Contribution à l'étude des épines caudales de l'*Acanthurus chirurgus* Bl. [*Contributio in studendas pinnas caudales speciei « Acanthurus chirurgus »*]. 7 fig., Bull. Stat. Biol. d'Arcachon, XXXII, 1, 31-38. Bordeaux (1935). **b - 126**

Description des épines motiles, symmétriques, qui existent sur l'extrémité caudale du corps d'*A. chirurgus* près de la naissance de la nageoire caudale; les écailles voisines sont modifiées; divergence des fibres musculaires.

**Souche G.** - Nouvelles recherches sur l'adducteur de l'arc palatin chez les Poissons [*Investigationes novae circa musculum adductorem arcus palatalis in Piscibus*]. 25 fig., Bull. Stat. Biol. d'Archachon, XXXII, 1, 53-71. Bordeaux (1935). **b - 127**

Ce travail continue une série d'études déjà publiées dans le Bulletin XXIX 1932 et comprend descriptions de l'adducteur de l'arc palatin de 47 autres espèces. Note générale sur l'innervation.

**Souche G.** - Nouvelles recherches sur le muscle ptérygo-maxillaire des Poissons osseux [*Investigationes novae in musculum pterygo-maxillarem in Teleosteis*]. 6 fig., Bull. Stat. Biol. d'Arcachon, XXXII, 1, 71-77. Bordeaux (1935). **b - 128**

Suite de deux publications parues dans le Bulletin, XXIX et dans les Comptes Rendus, 2, XXIX, 1932. Description du muscle ptérygo-maxillaire chez 7 espèces.

**Souche G.** - Morphologie comparative des Muscles élévateurs de la mandibule chez les Poissons [*Morphologia comparata musculorum elatorium mandibularium in Piscibus*]. 14 fig., Bull., Stat. Biol. d'Arcachon, XXXII, 1, 79-103. Bordeaux (1935). **b - 129**

Nouvelles recherches sur 14 espèces, parmi lesquelles *Osmerus, Maurolicus, Merlangus, Solea, Mugil, Thynnus, Epinephelus, Dentex, Sebastes.*

**Storlazzi G. G.** - Osservazioni su uno scheletro anormale di balenottera dell'Istituto di Zoologia e Anatomia comparata di Pisa [*Observationes circa scheletrum abnorme alicuius balenopterae Instituti Pisani pro Zoologia et Anatomia comparata*]. 12 fig., Atti Soc. Tosc. Sc. Natur., XLV, 192-224. Pisa (1936). **b - 130**

Molto probabilmente si tratta di una *Balaenoptera musculus* (L.) anzichè di una *B. physalus* (L.) come vorrebbe la vecchia determinazione di Richiardi. Discussioni sulle anomalie dello scheletro, sulla località di cattura e sulla probabile età dell'esemplare. (Dall'A.).

**Townsend L. D.** - Variations in the Meristic Characters of Flounders from the Northeastern Pacific [*De variationibus in caracteribus segmenta-*

*libus speciei « P. platessa » Oceani Pacifici nordorientalis*]. Tabl., Rep. Int. Fish. Comm., 11, 1-32. Seattle, Wash. (1936). **b - 131**

This paper is based on the study of fin-rays and vertebra of 2850 specimens of flounders from Puget Sound, Wash. to Pavlof Bay, Alaska. List of species recorded; key to Pacific Flatfishes based on meristic characters. Tables giving the different distributions of dorsal, anal and caudal rays, number of vertebrae, etc.

**Yonge C. M.** - The Evolution of the Swimming Habit in the *Lamellibranchiata* [*De progressibus quoad consuetudinem motoriam in Lamellibranchiatis*]. Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 77-100. Bruxelles (1936). **b - 132**

The aim of this study is to indicate the nature and probable origin of swimming in the Lamellibranchiates. A. has come to the following conclusions: Alone in the Lamellibranchiates the ability to swim is not associated with a reduction of the shell but it depends on modifications of four sets of organs, shell, adductor muscles, velum, and receptors; the adaptations present in swimming Lamellibranchiates are no more than further developments of those originally acquired for the efficient cleansing of the mantle cavity.

**An.** - Las ballenas y las velocidades de algunos barcos [*De Balaenis atque velocitate aliquarum navium*]. Ibérica, XXIII, 1105, 69. Barcelona (1936). **b - 133**

Velocidades extraordinarias de estos cetáceos que pueden acompañar a los barcos durante varios dias consecutivos. Noticia proveniente de un barco británico que marchaba à razón de 25 nodos (46 km).

## Apparatus nervorum. Organa sensuum.

**Alexandrowicz J. S.** - The Innervation of the Heart of Crustacea II. *Stomatopoda* [*Cordis innervatio in Crustaceis. II Stomatopoda*]. 13 figs., 1 pl., 13 fig., Quart. Journ. Microsc. Sc., LXXVI, 4, 511-548. London (1935). **b - 134**

Referring to his former work on the innervation of the heart of the Decapod *Crustacea*, A. here describes the same corresponding system found in *Squilla mantis*.

**Atoda Kenji** - The Innervation of the cranial Nerves of the Catfish: *Parasilurus asotus* L. [*Innervatio nervorum cranialium speciei « Parasilurus asotus »*]. Sc. Rep. Imp. Tôhoku Univ., IV, 11, 91-113. Sendai (1936). **b - 135**

Comparison with *Ameiurus melas* Raf. with regard to the topography of the cranial nerves. Description of the cranial nerve system.

**Baldi E.** - Moti di maneggio per lesioni cerebrali nel gambero [*De motibus circularibus per lesiones cerebrales in cancris*]. 14 fig., 2 tav., Arch. Sc. Biol., XXI, 6, 533-569. Napoli (1935). **b - 136**

L'A. esamina la meccanica degli arti locomotori e la localizzazione delle lesioni nei casi di moto in circolo dei gamberi, provocati per ferite laterali ai gangli sopraesofagei. Le alterazioni motorie variano a seconda che le ferite siano nel protocerebro, nel deutocerebro, nel tritocerebro e nelle commissure periesofagee, o che abbiano leso solamente la sostanza punteggiata dei glomeruli proto- e deutocerebrali. Il maneggio meccanicamente risulta dallo sdoppiamento laterale della meccanica composita normale degli arti e varia d'aspetto, a seconda della intensità di tale dissociazione (dall'A.).

**Carere Comes O.** - Ricerche istiofisiologiche sull'ipofisi dei Selaci con particolare riguardo alle modificazioni gravidiche [*Investigationes histiophysiologicae in hypophysim Selaciorum. Agitur particulatim de modificationibus gravidicis*]. 8 fig., Pubbl. Staz. Zool., XV, 3, 339-354. Napoli (1936). **b - 137**

Nel lobo rostrale dell'ipofisi dei Selaci le cellule cromofobe dei tubuli producono un secreto che aumenta straordinariamente nel corso della gravidanza. Le cellule eosinofile producono invece un secreto che è particolarmente abbondante negli animali giovani. L'A. ha notato chiaramente un antagonismo fra i due tipi di secrezione; questi fatti sembrano convalidare l'ipotesi avanzata per i Mammiferi da Evans e Simpson; nel lobo intermedio dei Selaci ovovivipari si nota, nel corso della gravidanza, un quadro di iperfunzione caratterizzato da aumento dell'eosinofilia e del volume delle cellule. (dall'A.).

**Chabanaud P.** - Situation particulière de l'organe nasal nadiral des téléostéens dyssymétriques de la famille des *Achiridae* [*Positio particularis organi nasalis nadiralis in Teleosteis dissymetricis ad familiam « Achiridae » pertinentibus*]. 1 fig., C. R. Acad. Sc., CCII, 7, 586-588. Paris (1936). **b - 138**

L'A. décrit la position, déterminée par un déplacement caudo-rostral; de l'organe nasal nadiral chez les *Achiridae*, fait remarquable, dont les *Achiridae* sont seuls jusqu'ici à offrir l'exemple dans la classe entière des Poissons. Il illustre la position de cet organe par un dessin qui a été fait en partie d'après une radiographie d'*Achiropsis normani* Chab. et en partie d'après plusieurs dissections.

**Chaine G. & Duvergier J.** - Recherches sur les otolithes des Poissons, étude descriptive et comparative de la sagitta des Téléostéens [*Investigationes in otolitha piscium. Studium descriptivum et comparativum sagittae Teleosteorum*]. 13 pl., Act. Soc. Linn. Bordeaux, LXXXVI, 1-254. Bordeaux (1934). **b - 139**

Par l'étude comparatif sur les otolithes de l'oreille interne des Téléostéens, l'A. en tire des conclusions importantes sur la phylogénie et la systématique des Poissons osseux.

**Denny M.** - The Occurrence of Cupulae on Lateral–Line Organs [*Cupulae praesentes in organis lineae lateralis*]. Science, LXXXIII, 2152, 302-303. New York (1936). **b - 140**

Description of the cupulae studied in living specimens of *Fundulus heteroclitus* as well as fixed and stained. Comparison with the cupula of the crista ampullaris of the vertebrate ear.

**Friant M.** - La fosse sylvienne du *Macrorhinus leoninus* L. [*Fossa Silvii in specie « Macrorhinus leoninus »*]. 4 fig., Bull. Inst. Océanogr., 709, 1-6. Monaco (1936). **b - 141**

Description de la région sylvienne du cerveau du *Macrorhinus* qui est du même type que celle des Phoques et qui est différente de celle des otaries.

**Friant M.** - Les premiers stades du développement superficiel du Neopallium et du Rhinencéphale chez les Pinnipèdes [*Stadia priora accretionis superficialis neopallii et rhinencephali in Pinnipedibus*]. 8 fig., Bull. Mus. Nat. Hist. Natur., Sér. 2, VIII, 5, 374-384. Paris (1936). **b - 142**

Étude sur deux foetus de *Trichechus rosmarus* provenant des Collections du Prince d'Orléans. Dimensions du télencéphale et morphologie de la face externe et de la face interne. Comparaison avec le télencéphale d'un foetus de Phoque. Considérations sur la forme du télencéphale, le volume des hémisphères, les sillons du télencéphale.

**Frisch (von) K.** - Ueber den Gehörsinn der Fische [*Piscium facultas audiendi*]. (Engl. Rés.). 17 Abb., Biol. Rev. Cambridge Phil. Soc., XI, 2, 210-246. London (1936). **b - 143**

Bericht über die mit 32 Fischarten aus 14 Familien ausgeführten Versuche hauptsächlich um die Fragen aufzuklären, ob die Fische auf Töne und Geräusche reagieren und ob dies auf ein echtes Hörvermögen oder auf einen gut entwickelten Tastsinn zurückzuführen ist. Die Bedeutung der Schwimmblase für das Hörvermögen. Das Hören ohne Schnecke und ohne Basilarmembran. Die biologische Bedeutung des Gehörsinnes der Fische. Bibl.

**Frisch K. & Dijkgraaf S.** - Können Fische die Schallrichtung wahrnehmen? [*Num pisces directionem intelligunt undarum sonorarum?*]. 13 Abb., Ztschr. f. vgl. Physiol., 641-655. Berlin (1935). **b - 144**

**Fuse G.** - Ueber die Epiphyse bei einigen wasserbewohnenden Säugetieren [*De epiphysi mammaliorum aquaticorum*]. Arb. Anat. Inst. Sendai, 18, 241-341. Sendai (1936). **b - 145**

Untersuchungen der Zirbeldrüse bei *Phoca vitulina* und *Ph. hispida larga, Delphinus longirostris, Balaenoptera borealis*, Seehund u. a. Das Inkret und die Art der Absonderung dieser Drüse ebenso wie die Wirkung ist noch nicht bekannt. Kritik der Marburgschen Ansicht in Bezug auf die Beziehung zwischen Vorkommen, Ausbildungsgrad der Zirbel und Vascularisation der Haut.

**Genschow I.** - Ueber den Bau und die Entwicklung des Geruchsorgans der Sirenen [*Structura et accretio organi olfactus in Sirenidis*]. 28 Abb., Ztschr. f. Morph. u. Oekol. XXVIII, 402-444. Berlin (1934). **b - 146**

**Gérard P.** - Sur l'homologie entre les appareils sensoriels du système latéral et ceux du système vestibulaire, chez les Téléostomes [*De homologia inter apparatus sensoriales systematis lateralis et apparatus systematis vestibularis in Teleosteis*]. 7 fig., Acad, R. Belgique, Bull. Cl. Sc., XXII, 5, 447-455. Bruxelles (1936). **b - 147**

Les organes sensoriels ou neuromastes sont innervés par les mêmes nerfs que les macules sensorielles des canaux latéraux. Ces appareils présentent la même structure histologique et une frappante homologie avec les appareils sensoriels du système vestibulaire.

**Gottbehüt V.** - Otolithen und Labyrinthe verschiedener Teleostier [*Otolitha et labyrinthi aliquorum Piscium*]. 23 Abb., 40 S. Dissertation Univ. Jena (1935). **b - 148**

Nicht nur innerhalb der Gattungen und Familien sondern auch unter verschiedenen Individuen sind Variationen zu unterscheiden. In den meisten Fällen tritt die Sagitta stärker hervor als die kleinen Utriculus- und Lagenaotolithen. Bei *Trachypterus taenia* fehlt der Asteriscus. Die Leistung des Ohrapparates.

**Gray J. & Sand A.** - Spinal Reflexes of the Dogfish (*Scyllium canicula*) [*De spinali reflexu in specie « Scyllium canicula »*]. Journ. Exper. Biol., XIII, 210-218. Cambridge (1936). **b - 149**

These spinal reflexes are not localised in any particular level but connected with the whole spinal cord. The theory is thus expressed that the persistert rhythm of the spinal fish is the expression of a basic rhythmic activity of the spinal cord.

**Holst (v.) E.** - Die Gleichgewichtssinne der Fische [*Piscium facultas aequilibrii*]. 4 Abb., Zool. Anz., 8. Suppl. 108-114. Leipzig (1935). **b - 150**

Bericht über Versuche mit *Crenilabrus, Sargus, Serranus* und *Gasterosteus*, denen die beiden Labyrinthe operativ entfernt worden waren. Vf. verficht die Ansicht, dass die Raumlage des Fisches nicht von einem einzelnen Organ sondern von mindestens drei Sinnen, dem statischen, dem optischen und dem taktilen abhängig ist.

**Katz B.** - Neuro-Muscular Transmission in Crabs [*Neuro-muscularis transmissio in Cancris*]. Journ. Physiol., 87, 199-221. Cambridge & London (1936). **b - 151**

**Komai T.** - The Nervous System in Some Coelenterate Types. I. *Coeloplana* [*De systemate nervorum in nonnullis Coelenteratis. I. Coeloplana*]. 3 figs., Mem. Coll. Sc. Kyoto Imper. Univ., Ser. B., XI, 3, 185-191. (Contr. Seto Mar. Biol. Lab., No. 49). Kyoto (1936). **b - 152**

*Cœloplana* has a nervous system of the cœlenterate type. As compared with the nervous system of the ordinary ctenophore, the following two features seem salient: first, the high development of nerves in the marginal region of the ventral, as well as of the dorsal side, and second, the absence of nerves on the dorsal side except in the marginal region. Conclusions as to the highly thigmotropic habit of the animal and its spasmodic reactions to narcotics. (From A.).

**Langworthy O. R.** - The Brain of the Whalebone Whale, *Balaenoptera physalus* [*De cerebro speciei « Balaenoptera physalus »*]. 1 fig., Bull. Johns Hopkins Hosp., LVII, 3, 143-147. Baltimore (1935). **b - 153**

Weight of the adult brain, greatest transverse diameter length of a cerebral hemisphere; the convolutional pattern of the cerebral cortices. Comparison with the brain of the porpoise.

**Löwenstein O.** - The Equilibrium Function of the Vertebrate Labyrinth [*De aequilibrii functione in labyrintho Vertebratorum*]. 10 figs., Biol. Rev. Cambridge Phil. Soc., XI, 1, 113-145. London (1936). **b - 154**

Review of results of recent investigations which are in opposition to the classical theory of the equilibrium function of the labyrinth in many important points. - Morphology and structural and functional subdivision of the labyrinth. Function of the labyrinth as a whole. The localisation of the equilibrium function in fishes and other animals. The function of separate parts of the pars superior. The mode of action of the utriculus and the semicircular canals. Bibl.

**Löwenstein O. & Sand A.** - The Activity of the Horizontal Semicircular Canal of the Dogfish, *Scyllium canicula* [*Activitas canalis horizontalis semicircularis speciei « Scyllium canicula »*]. Journ. Exper. Biol., XIII, 416-428. London (1936). **b - 155**

Spontaneous discharge of impulses when the fish is stationary in the normal position; increased discharge during ipsilateral rotation; diminution of the spontaneous discharge during contralateral rotation; prolonged after-discharge on stopping contralateral rotation.

**Meader R. G.** - Accommodation and its Reflex Pathways in the Teleosts [*Visus accomodatio eiusque reflexae directiones in Teleosteis perpensae*]. 3 figs., Yale Journ. Biol. & Med., VIII, 5, 511-522.

(Contr. Bermuda Biol. Stat. Res. inc., No. 38; St. Georges West, Bermuda). New Haven (1936). **b - 156**

Some examples of visual acuity in fishes. Study on the anatomical structure of the fish eye (*Holocentrus*). The mechanism of accommodation. Pathways for the accommodation reflex, the sensory pathway. Accommodation and the lateral geniculate body, integrating centers. The motor outflow.

**Pagano A.** - Sulla questione dell'olfatto nei cetacei [*Quaestio de olfactu in Cetaceis*]. 9 fot., Arch. Ital. Laringol., LIV, 2, 33-47. Napoli (1936). **b - 157**

L'A. studia le cavità nasali del delfino e le loro caratteristiche istologiche deducendo che la sensibilità della regione presunta olfattiva, non corrisponde a quella abituale e generale della regione olfattiva dei mammiferi, senza che per questo si possa affermare o negare che il V paio in qualche modo sostituisca l'azione dell'olfattivo (A.).

**Pouchet G.** - Sur la moelle épinière du Cachalot [*De medulla spinali in « Physeter »*]. Rés. Campagnes Scient., XCIV, 4-7. Monaco (1936). **b - 158**

Structure intérieure de la mœlle mise en évidence par des coupes. Le sillon antérieure, la substance blanche et grise, les deux cornes antérieures et postérieures, les cellules nerveuses.

**Scharrer B.** - Ueber « Drüsen-Nervenzellen » im Gehirn von *Nereis virens* Sars [*De cellulis nervorum glandularium in cerebro speciei « Nereis virens »*]. 4 Abb., Zool. Anz., CXIII, 11/12, 299-302. Leipzig (1936). **b - 159**

Beschreibung und Abbildung der im Gehirn befindlichen Nervenelemente, welche von gewöhnlichen Ganglienzellen abweichen. Drei verschiedene sekretorische Zelltypen werden unterschieden; von denen die blasigen Zelltypen wahrscheinlich Reste ehemaliger Ganglienzellen darstellen. Inwieweit die sezernierenden Zellen mit den anderen zwei rundlichen Drüsen-elementen zusammenhängen, ist noch nicht bekannt.

**Scharrer E.** - Ueber den Geschmackssinn der Fische [*Piscium facultas gustandi*]. 3 Abb., Nat. u. Volk, LXVI, 7, 319-322. Frankfurt a. M. (1936). **b - 160**

Einige Beispiele aus der Gruppe de Knochenfische der karpfenartigen Fische und *Trigla*. Bei *Trigla* hat Vf. feststellen können, dass die zur Fortbewegung dienenden Brustflossen auch Zentren von Geschmacks-Sinnesorganen besitzen und dass weiter die Rückenmarks-Nerven Geschmacks-Erregungen zu leiten vermögen.

**Scharrer E.** - Ueber « vegetative » Kerne im Gehirn und Rückenmark der Fische [*De nucleis vegetativis quoad cerebrum et medullum oblungatum in piscibus*]. 7 Abb., Zool. Anz. Suppl. 9, 236-240. Leipzig (1936). **b - 161**

Die vegetativen Zentren des Zentralnervensystems, die Polymorphie der Zellkerne, gemeinsame Eigenschaften. Das zentrale vegetative System der Fische im Vergleich mit dem der übrigen Wirbeltiere einheitlich histologisch charakterisierbar.

**Shanklin W. M.** - The Cerebella of three deep Sea Fishes [*De cerebellis trium piscium in mare profundum viventium*]. 12 fig., Acta Zool., XV, 409-430. Stockholm (1934). **b - 162**

The morphology and the bundle of fibers of the cerebellum are studied in *Diaphus dumerilii*, *Bathypterois articolor phenox* and *Saurida suspicio*.

**Straus W. L. Jr.** - Note on the Spinal Cord of the Finback Whale (*Balaenoptera physalus*). [*Nota de chorda spinali speciei « Balaenoptera physalus »*]. 1 fig., Bull. Johns Hopkins Hosp., LVII, 6, 317-329. Baltimore (1935). **b - 163**

This is apparently the first description of the thoracic cord in the Mysticeti or whalebone whales. Comparison with other data pertaining to *Cetacea*. Evidence that both cutaneous and proprioceptive sensibility are poorly developed in *Cetacea*. The vascularity of the cord and its connection with submersion.

**Suzuki S.** - The Innervation of the Heart of Molluscs [*Cordis innervatio Molluscorum*]. Scient. Rep. Tôhoku Imp. Univ., 4 th ser., Biol. X, 1-27. Sendai (1936). **b - 164**

**Tirelli M.** - I bottoni di senso e le papille del lato nadirale dei Soleini [*Bullae apparatus sensorii et papillae lateris nadiralis in Soleinis*]. 19 fig., 14 tav., Mem. R. Comit. Talassogr. It., CCXXXII, 3-42. Venezia (1936). **b - 165**

L'A. ha studiato il sistema sensoriale che guarnisce il lato cieco del capo in sette specie di *Soleinae* e in un *Cynoglossidae*. Questo sistema è composto da bottoni di senso e da papille di conformazione diversa a seconda delle diverse specie, la cui presenza è carattere ben definito della famiglia *Soleinae*. Distinzione di tre tipi di conformazione del sistema sensoriale del lato cieco e costituzione istologica delle singole papille nelle quali l'A. non è riuscito a mettere in evidenza la presenza di reti nervose. Per quanto concerne l'origine delle papille, è da ritenere che si tratti di squame modificate.

**Tonner F.** - Das Hautnervensystem der Arthropoden [*Systema tegumentale nervorum in Arthropodis*]. 5 Abb., Zool. Anz., CXIII, 1/2, 125-136. Leipzig (1936). **b - 166**

Anatomischer Aufbau. Physiologie. Untersuchte Arten (Uebersicht vorhandener Literatur). Uebereinstimmung in der Ausbildung des Hautnervensystems im ganzen Arthropodenstamm.

**Vogt W.** - Ueber ein Seitenorgan der Mysideen [*De organo laterali in Mysidaceis*]. 2 Abb., Ztschr. f. Morphol. u. Oekol., XXIX, 507-510. Berlin (1935). **b - 167**

**Wetzel A.** - Das Chordotonalorgan in der I. Antenne der Caprelliden [*De organo chordotonali in prima antenna Caprellidarum*]. 8 Abb., Zool. Jahrb. Abt. Anat. u. Ont., LIX, 4, 355-382. Jena (1935). **b - 168**

Beschreibung des Organes. Vergleich mit dem Chordotonalorgan der Insekten. Gebrauch.

**Wiersma C. A. G. & Van Harreveld A.** - The double Motor Innervation of a Crayfish Muscle [*De duplici innervatione motoria cuiusdam musculi in « Cambarus »*]. Proc. Nat. Acad. Sc., XXII, 3, 190-191. Washington (1936). **b - 169**

The muscles of the claws of crustaceans can react in two ways: twitch and slow contraction, which are evoked by different nerve fibres; AA. have reasons to believe that both kinds of contractions occur in the same muscle fibres.

**Wislocki G. B. & Geiling K. M. E.** - The Anatomy of the Hypophysis of Whales [*De anatomia hypophysis Balaenarum*]. Anat. Rec., LXVI, 1. Philadelphia (1936). **b - 170**

The structure of the pituitary glands has been studied in *Physeter megalocephalus*, *Balaenoptera physalus*, *B. sibbaldi* and *Tursiops truncatus*. The neural process is not considered to form any portion of the epithelial hypophysis.

**Wohlfahrt Th. A.** - Ein neuer Versuch über das Tonunterscheidungs-vermögen der Fische [*Experientia nova quoad possibilitatem distinguendi tonos differentes in Piscibus*]. Zool. Anz., Suppl. 9, 135-140. Leipzig (1936). **b - 171**

Beschreibung der mit der Elritze unternommenen Versuche, aus welchen es scheint, dass das Labyrinth in der Tonunterscheidung mehr leistet als der Tastsinn der Haut, was um so eigentümlicher ist, da ihm ja eine Basilarmembran als Analysator vollständig fehlt. Uebereinstimmung mit den Untersuchungen von v. Frisch und Stetter. Notwendigkeit weiterer Untersuchungen.

**Wolf E. & Zerrahn - Wolf G.** - Threshold Intensity of Illumination and Flicker Frequency for the Eye of the Sun-fish [*De limite quoad intensitatem illuminationis deque frequentia agitationis pro oculo in « Lepomis »*]. 2 figs., Journ. Gen. Physiol., XIX, 3, 495-502. New York & Baltimore (1936). **b - 172**

Account of investigations undertaken on *Lepomis*: relation of flicker frequency to critical intensity of illumination, curve of critical illumination; function of rods and cones; maximum frequency of flicker perceived by the fish's eye.

**Young J. Z.** - The Giant Nerve Fibres and Epistellar Body of Cephalopods [*Fibrae gigantes nervosae atque corpus epistellare in Cephalopodis*]. 20 figs., Quart. Journ. Microsc. Sc., LXXVIII, 3, 267-386. London (1936). **b - 173**

This system in decapod Cephalopods is supposed to produce the rapid contractions of the mantle muscles and ink-sac by means of which the animal shoots away behind a cloud of ink. The giant fibers arise from the fusion of the processes of a large number of cells, grouped together into a giant fiber lobe in *Loligo*. Instead of giant fibers Octopods have a closed vesicle, the epistellar body in the walls of which there are cells, called the neurosecretory cells, resembling neurons but whose processes (axons) end in a homogeneous substance filling the cavity. From experiments with removal of both epistellar bodies A. concludes that the epistellar body has arisen from the giant fiber lobe and that the neurosecretory cells produce a secretion which then passes into the blood.

## Apparatus circulationis atque sanguis.

**Bacq Z. M.** - Observations physiologiques sur le cœur, les muscles et le système nerveux d'une Ascidie [*Observationes physiologicae circa cor, musculos, systema nervorum alicuius Ascidiae*]. Arch. Int. Physiol., XL, 357-373. Liège (1935). **b - 174**

Action des substances chimiques sur le chronotropisme du cœur de *Ciona intestinalis*. Effet de l'ablation du ganglion nerveux.

**Biborski J.** - Ueber die Segmentalgefässe und die Gefässe der unpaaren Flossen der Scholle (*Pleuronectes platessa*) [*Vasa segmentalia et vasa pinnarum imparium speciei « Pleuronectes platessa »*]. 1 Taf. a. T., Bull. Int. Acad. Polon. Sc. et Lettr., Cl. sc. mathém. et natur., sér. B, II, 8/10, 280-291 (Trav. Stat. Marit. Hel). Cracovie (1935). **b - 175**

Material und Methoden. Die Hauptlängsgefässe. Die Segmentalgefässe. Die Gefässe der Schwanzflosse. Einfluss der Körperform auf die Verteilung der Blutgefässe. Abarten der Gefässe. Diskussion.

**Hopkins A. E.** - Pulsation of Blood Vessels in Oysters, *Ostrea lurida* and *O. gigas* [*De pulsatione in vasis sanguineis Ostrearum « Ostrea lurida » et « Ostrea gigas »*]. 4 figs., Biol. Bull., LXX, 3, 413-425. Lancaster, Pa. (1936). **b - 176**

The rate of transmission of the impulse of contraction is slow and the activity is compared to that of vertebrate smooth muscle. The pulsating vessels appear to be indefinite spaces within the sub-epithelial matrix of connective tissue and smooth muscle, and an endothelium and other well-defined structures characteristic of formed blood vessels may be lacking. (From A:s abstr.).

**Hopkins A. E.** - Pulsating Blood Vessels in the Oyster [*Vasa sanguinea pulsatilia in Ostreis*]. Science, LXXXIII, 2163, 581. New York (1936). **b - 177**

The newly described « accessory hearts » (Biol. Bull. 3, 345-355, 1934) in the oyster prove to be the most prominent of a great many pulsating peripheral blood vessels in the walls of the mantle. Description, hypothesis as to the pulsations.

**Marples B. J.** - The Blood Vascular System of the Elasmobranch Fish *Squatina squatina* (Linné) [*De systemate vasculari sanguineo Piscis elasmobranchii « Squatina squatina »*]. 12 figs., Trans. R. Soc. Edinburgh, LVIII, 3, 817-840. Edinburgh (1936). **b - 178**

The structure of the vascular system of the Elasmobranch fish *Squatina squatina* is described. It is remarkable that the mandibular arterial arch is complete in the adult, a condition found elsewhere in the Elasmobranchii only in the Holocephalan, *Callorhynchus antarcticus*. The vascular system of *Squatina* resembles that of the Sharks in all important points except the distribution of the anterior mesenteric artery, in which it resembles the Rays. In internal structure *Squatina* is much nearer to the Sharks, while in external form it lies intermediate between the Sharks and the Rays. (A.).

**Navez A. E.** - Observations sur le rythme cardiaque d'*Anomia simplex* (d'Orbigny) (*Lamellibranchiae*) [*Observationes circa rhythmum cardiacum speciei « Anomia simplex »*]. 4 tabl., 7 fig., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 701-737. Bruxelles (1936). **b - 179**

L'A. a suivi *in vivo* certains aspects du rythme cardiaque de ce Lamellibranche. Description de la technique adoptée. Le cycle cardiaque du cœur *in situ* est caractérisé par les éléments: fréquence et amplitude, qui à température constante sont remarquablement constants chez l'organisme quiescent. Observations du rythme cardiaque du cœur isolé dans l'eau de mer et dans un milieu artificiel. Par le rapport: fréquence cardiaque - température, chez *Anomia simplex*, il ressort que l'équation d'Arrhénius est suivie avec une très grande précision.

L'eau de mer saturée en oxygène augmente l'amplitude et la fréquence du rythme cardiaque; effet opposé de l'eau de mer désaérée. Étude des variations spontanées de la fréquence cardiaque.

**Schnakenbeck W.** - Untersuchungen über das Blut von Plattfischen [*Pleuronectes. Investigationes de sanguine*]. Naturwiss., XXIV, 12, 187-188. Berlin (1936). **b - 180**

Besprechung der Untersuchungen v. Buddenbrocks über Blut und Atmung der Plattfische, welche im Anschluss an die in der Ost- und Nordsee ausgeführten Brutungsversuche ausgeführt worden sind.

**White E. G.** - The Heart Valves of the Elasmobranch Fishes [*Valvulae cardiacae in piscibus Elasmobranchiis*]. 12 figs., Amer. Mus. Nov., 838, 1-21. New York (1936). **b - 181**

The variation of the number of valves may serve as a factor for classification. The question is whether the small number or the large number is primitive. A. here develops her theory of duplication of valves in preference to that of reduction.

**Zlabek K.** - Contribution à la connaissance de la structure du myocarde des Poissons [*Contributio in cognoscendam Piscium structuram myocardicam*]. C. R. Soc. Biol., CXVII, 178. Paris (1934). **b - 182**

Description de la couche corticale du myocarde qui englobe une couche spongieuse; entre elles on remarque un tissu formé de fibres conjonctives.

## Apparatus respirationis.

**Chen P. S.** - Zur Morphologie und Histologie der Respirationsorgane von *Grapsus grapsus* L. [*De morphologia et histologia apparatus respirationis speciei « Grapsus grapsus »*]. 55 Abb., Jen. Ztschr., LXVIII, 31-116. Jena (1934). **b - 183**

Eingehende Beschreibung der Kiemenblätter und ihrer Blutgefässe.

**Irving L., Solandt O. M., Solandt D. Y. & Fisher K. C.** - The Respiratory Metabolism of the Seal and its Adjustment to Diving [*Metabolismum respiratorium Phocae et eius aptatio immersioni*]. Journ. Cell. & Comp. Physiol., 7, 137-151. Philadelphia (1935). **b - 184**

A formula is given for the relation of surface area to body weight of seals aged 4 months and varying in weight from 19 to 30 kg. Periodicity of breathing, pulse, heart rate and blood pressure. Distinct control of respiration, pulse and B. P.

**Johnson M. L.** - The Control of Respiratory Movements in *Crustacea* by Oxygen and Carbon Dioxide [*Inspectio motuum respiratoriorum in Crustaceis per* $O_2$ *et* $CO_2$]. Journ. Exper. Biol., XIII, 467-475. Cambridge (1936). **b - 185**

The effect of lack of oxygen and excess of carbon dioxide on *Squilla mantis*, *Pandalus borealis* and *Idothea neglecta*. *Carcinus maenas*, *Anilocra physodes* and *Nerocila bivittata* seem to be apparently independent of the gas content of the medium. Great individual variation in the treshold of response and extent of recovery.

**Koschtojanz C. S.** - On the Participation of the Respiratory Rhythm of Fishes and Amphibia in Plastic Tonus [*Participatio rhythmi respiratorii Piscium et Amphibiorum quoad plasticum tonum*]. Arch. Sc. Biol., 41, 172-173. Léningrad (1935). **b - 186**

It is shown that operative interference with peripheral respiratory movements results in loss of skeletal muscular tone which is ascribed to the loss of rhythmic impulses to the central nervous system.

**Newcombe C. L., Miller C. E. & Chappell D. W.** - Preliminary Report on Respiratory Studies of *Littorina irrorata* [*Relatio prior de studiis circa respirationem speciei « Littorina irrorata »*]. Nature, CXXXVII, 3453, 33. London (1936). **b - 187**

Short note on experiments undertaken to show the effects of temperature and salinity on the respiratory rate of the intertidal gastropod *Littorina irrorata*.

**Rigg G. B. & Henry B. S.** - On the Origin of the Gases in the Float of Bladder Kelp [*De origine substantiarum gasosarum in pneumatocyste speciei « Nereocystis »*]. Amer. Journ. Bot., 22, 362-365. Lancaster, Pa. (1935). **b - 188**

Experimental results indicate that the interior of the float of bladder kelp is sterile, at least so far as bacteria are concerned. All available evidence is consistent with Langdon and Gailey's conclusion that the carbon monoxide present in this cavity is a product of respiration. (A.).

## Apparatus digestionis atque alimentatio.

**Austin F. O.** - The Habitat and Food Sea Mussel. The Rate of Digestion of Ingested Diatoms and Dinoflagellates [*Habitat alimentatioque Ostrearum. Modus agendi, quoad tempus, digestionis Diatomearum et Dinoflagellatorum ingestorum*]. 1 table., Bull. Scripps Instit. Oceanogr., Techn. Ser., IV, 1, 16-17. Berkeley, Ca. (1936). **b - 189**

The abundance, habitat, feeding habits, and digestive apparatus of the California sea mussel, *Mytilus californianus*, are briefly discussed. It is shown that digestive processes begin very soon after the ingestion of phytoplankton, especially when the animals are hungry. (A.).

**Austin F. O. & Fox D. L.** - The Habitat and Food Sea Mussel. Food, Method of Capture, and Rate of Digestion. The Organs of Feeding and Digestion [*Habitat alimentatioque Ostrearum. Alimentum, captandi ratio, digestio. Organa alimentationis et digestionis*]. Bull. Scripps Instit. Oceanogr., Techn. Ser., IV, 1, 13-15. Berkeley, Ca. (1936). **b - 190**

Brief account of the outstanding features of the organs and accessories of alimentation in *Mytilus edulis* and *M. californianus*, containing a summary of detailed descriptions made by other investigators, with special regard to those of Mr. Whedon. The results of a study of the ciliary current, made by the use of carmine, carborundum powder, Indian ink and various foods, are reported.

**Bahr K.** - Was fressen unsere Ostseelachse ? [*Quae res a nostris Salmonibus Balticis manducantur ?*]. 1 Diagr., Dtsch. Fischwirt., II, 52, 954-956. Berlin (1935). **b - 191**

Ergebnisse planmässiger Untersuchungen über die Nahrungszusammensetzung bei Angel- und Treibnetzlachsen aus der Ostsee, also Fischen von einer Länge von 70 bis 100 cm und darüber hinaus, über welche das Beobachtungsmaterial schwierig habhaft ist, da sie unausgeweidet sofort zum Versand auf die Märkte gelangen.

**Beebe W.** - Food of the Bermuda and West Indian Tunas of the Genera *Parathunnus* and *Neothunnus* [*De cibo generum « Parathunnus » et « Neothunnus » ad Insulas* Bermuda *Indiasque Occidentales pertinentium*]. 3 pls. o. t., Zoologica, XXI, part 3, 12/18, 195-205. (Contr. Bermuda Biol. Stat., 45, St. George's West, Bermuda). New York (1936). **b - 192**

This examination has revealed many interesting facts as to the fish fauna of certain areas, especially in depths of three hundred fathoms off Bermuda, where dredgings are impossible for the sake of the coral reefs. Several new species of fish and invertebrates have been recorded. The results are expressed in tables and plates.

**Brian A.** - Importanza dei Crostacei nell'alimentazione dei Potassoli del Mare Ligure (*Gadus poutassou* Düben) [*Momentum Crustaceorum pro alimentatione speciei « Gadus poutassou » Maris Ligustici*]. 3 fig., Boll. Mus. Lab. Zool. e Anat. Comp. Genova, XVI, 87, 1-14. Genova (1936). **b - 193**

Descrizione degli organismi che servono di nutrimento al *G. poutassou*, e specialmente dei Crostacei: *Meganyctiphanes*, *Nyctiphanes*, *Pasiphaea*, *Chlorotocus* e *Sergestes rubroguttatus*. I pesci e le altre prede.

**Buley H. M.** - The Habitat and Food Sea Mussel. Consumption of Diatoms and Dinoflagellates by the Mussel [*Habitat alimentatioque

*Ostrearum. De consumptione Diatomacearum et Dinoflagellatorum a specie « Mytilus »*]. Bull. Scripps Instit. Oceanogr., Techn. Ser. IV, 1, 19-27. Berkeley, Ca. (1936). **b - 194**

Results of a seven months' investigation on the percentages of the aggregate of diatoms and dinoflagellates in the water of the Pacific coast of North America and those contained in the mussel stomachs, showing the prominence of dinoflagellates, which suggests that this group largely contributes to the food supply of lamellibranches. The preponderance of smaller dinoflagellates and of smaller diatoms in the mussels may indicate a tendency to select in size as well as in kind.

**Clifford G. C.** - Food of the Coarse-scaled Sucker (*Catostomus macrocheilus* Girard) [*Alimentum speciei « Catostomus macrocheilus »*]. Journ. Biol. Bd. Canada, III, 1, 20-25. Toronto (1936). **b - 195**

Examination of 167 specimens shows that immature fish feed upon planktonic forms while mature fish feed upon larger bottom organisms and bottom detritus. The diet varies with habitat and season, depending upon what is available. Since it eats spawn of salmonids and takes much the same food organisms as they do, its presence in waters containing important salmonids is undesirable. (A.).

**Fox D. L. & Marks G. W.** - The Habitat and Food Sea Mussel. The Digestive Enzymes [*Habitat alimentatioque Ostrearum. De enzymatis digestivis*]. Bull. Scripps Instit. Oceanogr., Techn. Ser., IV, 1, 29-47. Berkeley, Ca. (1936). **b - 196**

This investigation was undertaken with a view to determine the kinds of food substrates that the California mussel, *Mytilus californianus*, a typical plankton feeder, is able to digest. A study is made on the proteases, lipases and esterases, carbohydrases contained in the entire digestive tract, digestive diverticula, and style, and of the optimum pH of style amylase and style glycogenase.

**Fuller J. L. & Clarke G. L.** - Further Experiments on the Feeding of *Calanus finmarchicus* [*Experientiae quoad nutricationem speciei « Calanus finmarchicus »*]. 2 graph. figs., 4 tabl., Biol. Bull., LXX, 2, 308-320. Lancaster, Pa. (1936). **b - 197**

Preliminary measurements on the rate of filtration of *Calanus* gave a result less than that calculated to be necessary for the copepod to obtain sufficient food if diatoms and peridinians are the sole source of supply. Since bacteria cannot be regarded as an important source of food, the other small and little known elements of the nannoplankton should be scrutinized, as their abundance in the sea may be greater than previously supposed. (A.).

**Hata K.** - Effect of Feeding with Red Pepper and Soy-Bean Oil Irradiated by Ultra-violet Rays upon the Growth, Egg-Production, etc. in Trouts [*Alimentationis effectus pipere rubro et oleo soyae per radios ultraviolaceos irradiato in tructae accretionem, ovorum productionem, etc.*]. Journ. Imp. Fish. Exp. Stat., VI, 229-237. Tokyo (1935). **b - 198**

Author claims that rainbow trout and brook–trout, when fed with food to which red pepper and soya-bean oil irradiated by ultra-violet rays are added, show an increase of growth and egg production. Fish hatched from eggs of fish fed as described above, are stronger and healthier than those hatched from eggs of ordinary fed fish.

**Hopkins A. E.** - Temperature optima in the Feeding Mechanism of the Oyster, *Ostrea gigas* [*Temperatura optima in apparatu alimentari speciei « Ostrea gigas »*]. 9 fig., Journ. Exp. Zoöl., LXXI, 2, 195-208. Philadelphia (1935). **b - 199**

The optimum temperature for the pumping activity of the gills of this species is about 27° to 28° C., while the optimum for maximum relaxation of the adductor muscle, which controls the size of the inhalent and exhalent apertures between the valves, is close to 20°. The adductor muscle therefore limits the activity of the gills, and the optimum temperature for rate of pumping, considering the organism as a whole, is the same as that for relaxation of the muscle (20°). (A.).

**Ishida J.** - The Stomach of *Mugil cephalus* and its Digestive Enzymes [*Stomachus speciei « Mugil cephalus » et enzymata digestiva*]. Annot. Zool. Jap., XV, 182-189. Tokyo (1935). **b - 200**

**Ishida J.** - Influence of Change in Food on Liver Glycogen in a Labroid Fish *Thalassoma umbrostigma* [*Cibi mutationis effectus in hepaticum glycogenum in specie « Thalassoma umbrostigma »*]. Annot. Zool. Jap., XV, 203-212. Tokyo (1935). **b - 201**

**Jespersen P.** - The Food of the Herring in the Waters round Bornholm [*Alimentum aringorum apud* Bornholm]. (In Engl., Dan. Rés.). 15 figs., tabl., Medd. Komm. Danm. Fisk- & Havunders., Serie Plankton, III, 2, 1-39. København (1936). **b - 202**

The relative numbers of feeding herring in the different months. Quantitative investigations on the herring food. Feeding in relation to development of genital organs. Plankton samples from the waters east of Bornholm. The occurrence of the different organisms in the herring food. Summary of the principal elements in the food of the Herring. Tables of stomach analyses.

**Johansen B.** - Sur la nourriture des Phoques caspiens [*De nutricatione phocarum Caspicarum*]. (En russe). 2 tabl., Zool. Journ., XIII, 584-587. Moskva (1934). **b - 203**

Crustacés, Mollusques et Poissons constituent la nourriture des Phoques, mais ces prélèvements ne sont guère nuisibles à l'économie de la pêche, pour l'intérêt économique qui présente la chasse des Phoques.

**Karpewitsch A. & Bokowa E.** - Verdauungstempos bei Seefischen [*De digestionis gradiis in Piscibus marinis*]. (In Russ.). 3 Diagr., 8 Tab., Zool. Journ., XV, 1, 143-168. Moskva (1936). **b - 204**

Ergebnisse der Untersuchungen über die verschiedenen Verdauungstempos bei Seefischen, besonders bei *Gadus virens, Cottus scorpius,* und *Pleuronectes flesus*: die verschiedenen Phasen der Verdauung, die Verdauungsorgane und die dem Alter folgenden Variationen der Schnelligkeit der Verdauung.

**Kubo Itsuo** - Feeding Velocity of the Eel *Anguilla japonica* T. & S. in Relation to Water Temperature and other Environmental Conditions [*Celeritas nutricationis in « Anguilla japonica » pro aquae temperatura aliisque condicionibus ambientis*]. (In Jap., Engl. Rés.). 3 tabl., Bull. Jap. Soc. Scient. Fish, IV, 5, 335-338. Tokyo (1936). **b - 205**

The « feeding velocity » of the eels cultured in two experimental ponds at the Yosida Piscicultural Laboratory was measured by the weight of the food consumed in a minute or in five minutes. Relation to the water and air temperatures and to the wind; the airpressure did not cause any effect on the feeding velocity.

**Lombardi D.** - Gli studi sull'alimentazione dei pesci e la loro importanza biologica [*Studia circa Piscium alimentationem eorumque momentum biologicum*]. Riv. Fis. Mat. e Sc. Nat., I, 5 182-187. Napoli (1936).

(—) Boll. Pesca Piscicult. e Idrobiol., XII, 5, 372-375. Roma (1936). **b - 206**

Stabilita l'importanza di tali studi non solo per le deduzioni dal punto di vista alimentare, ma anche per i dati sull'*habitat* e sulle possibili migrazioni orizzontali e verticali, diurne e stagionali dei pesci, vengono riferite le osservazioni sul contenuto gastrico del *Gadus poutassou* proveniente dal Tirreno, dallo Jonio e dall'Adriatico. L'A. conclude che la natura dell'alimento in un pesce sembra sia la resultante di due fattori: l'ambiente e il genere di vita.

**Mann H.** - Der Einfluss der Ernährung auf die Färbung der Fische [*De nutritionis influentia in Piscium colorationem*]. Sitz. ber. Ges. Naturf. Freunde, 19. Nov. 1935. Berlin (1935). **b - 207**

Feststellung einer Speicherung von den in der Nahrung vorbefindlichen Farbstoffen.

**Mazoué H.** - Etude du mode de nutrition d'un Infusoire marin de la famille des *Philasteridae*: *Porpostoma notatum* Mobius [*Ratio nutritionis alicuius infusorii marini*]. Bull. Soc. Zool. France, LX, 143-152. Paris (1935). **b - 208**

La nutrition s'accomplit d'une double façon: chimique, avec la production d'un acide qui paraît être l'acide chlorhydrique, et mécanique, par l'augmentation de son volume et la présence d'une structure vacuolaire particulière.

**Meschkat A.** - Untersuchungen über den Aufbau der Kabeljaunahrung im Bereich der Vestmannainseln [*Investigationes de compositione alimentari speciei « Gadus morrhua » in insulis* Vestmanna]. (In Dtsch., Engl., Rés.). 3 Abb., 3 Tab., Cons. Int. Expl. Mer., Rapp. & Pr.- Verb., XCIX, Rapp. Atlant., 1933-35, III, 3-19. Copenhague (1936). **b - 209**

Ort und Zeit der Untersuchung. Die Mageninhalte des Kabeljaus. Die Mageninhalte der vom Kabeljau gefressenen Tiere (Sekundäre Nahrungsuntersuchung). Die Nahrung der Planktoncrustaceen aus den Mägen der Nahrungstiere (Tertiäre Nahrungsuntersuchungen). Der Detritus. Schlussbetrachtungen. Bibl.

**Pierre M.** - L'hépatopancréas des Pagures [*De hepatopancreas in Paguris*]. Figs., tabls., 1 pl., Trav. Stat. Biol. Roscoff, 13, 177-210. Paris (1935). **b - 210**

Étude sur la morphologie et l'histologie de l'hépatopancréas de *Anapagurus*, *Eupagurus*, *Clibanarius*, *Diogenes*, *Pagurus et Paguristes*, qui se compose de nombreux tubes aveugles, répartis en deux masses drainées chacune par un tube collecteur, débouchant dans l'intestin moyen. L'hépatopancréas des Pagures est abdominal et asymétrique de même que les Thalassinidés.

**Rustad D.** - Der Filtermagen von *Aega stroemi* Lütken (*Crustacea Isopoda*) [*Apparatus digestionis ut philtrum constitutus in specie « Aega stroemi »*]. 8 Abb., Berg. Mus. Årb., naturv. r. I, 6, 2-17. Bergen (1936). **b - 211**

Uebersicht der bisherigen Forschungen und deren wichtigste Ergebnisse in Bezug auf den Verdauungsapparat der Malacostraken. Eingehende Beschreibung und Untersuchungsmethode des Verdauungstractus von *Aega stroemi*; Abweichungen dieser Struktur bei anderen Arten.

**Sawano E.** - Contributions to the Knowledge on the Digestive Enzymes in marine Invertebrates. I. Proteolytic Enzymes in *Polypus vulgaris* (Lamarck) [*Contributiones in cognoscenda enzymata digestionis in Invertebratis marinis. I. Enzymata proteolytica speciei « Polypus vulgaris »*]. 12 fig., Scient. Rep. Tokyo Bunr. Daig. B. II, 101-126. Tokyo (1935). **b - 212**

The optimum of pH has been determined for different digestions; it lies in general between 7,7 and 8,6.

**Schlottke E.** - Biologische, physiologische und histologische Untersuchungen über die Verdauung von *Limulus* [*Investigationes biologicae, physiologicae et histologicae de digestione in « Limulus »*]. 28 Abb., Ztschr. f. vgl. Physiol., XXII, 359-413. Berlin (1935). **b - 213**

**Shapovalov L.** - Food of the Striped Bass [*Cibus speciei « Roccus lineatus »*]. 3 graph. figs., 2 tabl., Calif. Fish & Game, XXII, 4, 261-271. Sacramento (1936). **b - 214**

The stomach contents of the Striped Bass from the Waddell Creek Lagoon, the San Francisco Bay region, the Atlantic and Pacific coasts have been examined and the results are expressed in tables. Bait used. Feeding habits of the Striped Bass.

**Suehiro Y.** - On the Development of the Digestive Tract and the Change of Food with It in the Fish, *Chasmichthys gulosus* [*De progressu quoad tractum digestivum deque consequente variatione alimentationis in pisce « Chasmichthys gulosus »*]. (In Jap.). 8 figs., Journ. Imp. Fish. Exp. Stat., VI, 3, 109-113. Tokyo (1935). **b - 215**

Description of the changes of the digestive tracts of *C. gulosus* with the growth of the fish followed by alteration of his diet. In the young stage, the food consists of microorganisms; the adult fish chiefly feeds on Crustaceans.

**Tomiyama T.** - Chemical Studies of the Proteins of Feeding-stuffs IV. The Comparison of Digestibility by the proteolytic Enzyme contained in Viscera of Eel [*Studia chemica de proteinis substantiarum alimentarium. Comparatio functionis digestivae per enzymata proteolytica in visceribus Anguillarum*]. Journ. Biochem., XXI, 367-370. Tokyo (1935). **b - 216**

**Ueda S. & Okada Y.** - On the Food of the Salmonoid Fish Ayu (*Plecoglossus altivelis* Temminck & Schlegel) [*De alimento Piscis salmonoidis « Plecoglossus altivelis »*]. (In Jap., Engl. Rés.). 2 figs., 1 table, Bull. Jap. Soc. Scient. Fish., V, 2, 113-115. Tokyo (1936). **b - 217**

The principal food of adult Ayu proves to be diatoms and bluegreen Algae and that of the small Ayu preferably Algae.

**White H. C.** - The Food of Salmon Fry in Eastern Canada [*Cibus larvarum salmonis in canadensi regione orientali*]. 2 figs., 3 tabl., Journ., Biol. Bd. Canada, II, 5, 499-506. Toronto (1936). **b - 218**

The general character of the food is determined by availability, preference of any food can only be determined by further research. The chief food of the newly emerged fry is formed by Chironomid larvae.

## Apparatus uro-genitalis.

**Acrivo C.** - Sur l'organisation et la structure du corps caverneux chez *Scyllium canicula* [*De corporibus cavernosis speciei « Scyllium canicula » quoad organisationem et structuram*]. Bull. Hist. Tech. Microsc., XII, 362. Paris (1935). **b - 219**

Position des corps caverneux et leur constitution histologique. Action de la sécrétion des cellules sur la destruction et la transformation des globules rouges vieillis.

**Bertolini F.** - Ricerche sulla escrezione degli Oloturoidi [*Investigationes de excretione in Holothuroideis*]. Pubbl. Staz. Zool., XV, 3, 322-338. Napoli (1936). **b - 220**

I polmoni acquatici, l'apparato digerente e le gonadi, hanno nelle oloturie funzione di organi escretori. Vi sono due modalità di escrezione, e l'A. ha potuto metterle in evidenza mediante colori diffusibili che si diffondono dal liquido celomatico attraverso le pareti degli organi escretori, e colori colloidali, che vengono fagocitati da piccoli amebociti che vanno all'intestino o ai polmoni acquatici o alle gonadi ed ivi eliminano le sostanze fagocitate. Negli Echinodermi ogni organo ha più di una funzione e ogni funzione più organi.

**Bliding C.** - Ueber die Fortpflanzungskörper einiger marinen *Cladophora* Arten [*De organis reproductionis in quibusdam Cladophoris marinis*]. Sv. Bot. Tidskr., 30, 529-536. Stockholm (1936). **b - 221**

*Cladophora glaucescens* bildet nur grosse zweigeisslige nicht kopulierende Schwärmer und unterscheidet sich also von *Cl. sericea*, welche Gametenpflanzen (zweigeisslige Gameten) und Zoosporenpflanzen (viergeisslige Schwärmer) bilden. Vf. glaubt, dass bei *Cl. glaucescens* die Reduktionsteilung nicht stattfindet. Notwendigkeit zytologischer Untersuchungen.

**Calzoni M.** - Ricerche sulla placenta del *Carcharias glaucus* [*Investigationes in placentam speciei « Carcharias glaucus »*]. 3 fig., Pubbl., Staz., Zool. Napoli, XV, 2, 169-174. Napoli (1936). **b - 222**

Studio istologico della placenta di un embrione di *Charcharias glaucus* Rond. La porzione del sacco vitellino che non aderisce alla parete dell'utero nella placenta di *C. glaucus* è molto simile alla porzione equivalente di placenta del *Mustelus laevis* ed è anche dello stesso ordine di grandezza la velocità di assunzione di sostanze organiche nel corso dello sviluppo embrionale.

**Edwards J. G.** - The Epithelium of the renal Tubule in Bony Fish [*De epithelio tubuli renalis in Teleosteis*]. 4 pls., Anat. Rec., LXIII, 3, 263-279. Philadelphia (1935). **b - 223**

Photographic reproduction of the tubule of 5 genera of *Syngnathidae* and some fresh water forms. Segmental differentiation is present in the glomerular tubule of marine and fresh water fish but lacking in aglomerular tubules or tubules with atrophic glomeruli. Comparison with higher vertebrates.

**Giacomini E.** - Ulteriori ricerche anatomomicroscopiche ed organogenetiche sul sistema interrenale e sui corpuscoli di Stannius dei Teleostei e dei Ganoidi [*Investigationes ulteriores anatomo-microscopicae et organogeneticae in systema interrenale et corpusculos* τοῦ Stannius *Teleosteorum*]. Rend. R. Acc. Sc. Ist. Bologna, Cl., Sc., Fis., XXXVIII, 127-140. Bologna (1933-34). **b - 224**

L'A. ha studiato il sistema interrenale in due specie di Condroganoidi: *Scaphirhynchus platyrhynchus* e *Polyodon spathula*. Anche in queste forme esiste soltanto l'interrenale con disposizione simile a quella che esso ha nell'*Acipenser* e negli Olostei od Euganoidi: *Lepidosteus* ed *Amia*, e mancano affatto i corpuscoli di Stannius, i quali invece coesistono insieme all'interrenale nel *Lepidosteus*, nell'*Amia* e nei Teleostei.

**Grafflin A L.** - Renal Function in Marine Teleosts. III. The Excretion of Urea [*Functio renalis in Teleosteis marinis. III. Ureae excretio*]. Biol. Bull., LXV, 2, 228-235. Lancaster, Pa. (1936) **b - 225**

The ability of the kidney to concentrate urea at widely varying urine flows has been investigated, particularly in the *Myoxocephalus octodecimspinosus* and to a lesser extent in the *Pseudopleuronectes americanus* as well as four other marine teleosts. Results are reported in tables. Comparison and conclusional remarks.

**Grafflin A. L.** - Renal Function in Marine Teleosts. IV. The Excretion of inorganic Phosphate in the Sculpin [*Functio renalis in Teleosteis marinis. IV. Excretio phosphati inorganici speciei « Myoxocephalus octodecimspinosus*]. 3 figs., 3 tabl., Biol. Bull., LXXI, 2, 360-374. Lancaster, Pa. (1936). **b - 226**

In line with Marshall and Grafflin's observations that the aglomerular kidney excretes phosphate that is derived from some unidentified precursor (other than inorganic phosphate in the plasma), the present observations establish the presumption that a similar process occurs in the glomerular kidney of the sculpin. (A.).

**Hickling C. F. & Rutenberg E.** - The Ovary as an Indicator of the Spawning Period in Fishes [*De ovario ac indicatore periodus reproductionis in Piscibus*]. 1 fig., 1 tabl., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 311-317. Plymouth (1936). **b - 227**

Measurements of diameters of the eggs in the ripening ovaries of four species of fish, namely the hake and haddock, pilchard and herring, give frequency – distributions which are consonant with the known duration of the spawning period. It is suggested that this method may provide information as to the spawning habits of new or rare species of fish. (A.).

**Nagel H.** - Die Aufgaben der Exkretionsorgane und der Kiemen bei der Osmoregulation von *Carcinus maenas* [*De organis excretoriis et branchiis in osmoregulatione speciei « Carcinus maenas »*]. 9 Abb., Ztschr., f. vgl. Physiol., XXI, 468-491. Berlin (1935). **b - 228**

**Pérez Ch.** - Atrophie des glandes génitales de la Turritelle sous l'influence du parasitisme par les sporocystes d'un Trématode [*De atrophia glandularum genitalium in « Turritella » sub influentia parasitismi per sporocysta alicuius Trematodis*]. 9 figs., Mém. Mus. R. Hist. Natur., Belgique, Sér. 2, 3, 539-547. Bruxelles (1936). **b - 229**

L'examen de l'état des glandes génitales chez les individus de deux sexes de *Turritella communis*, parasités par le Trématode *Cercaria rhodometopa*, a montré que les testicules présentent une apparence absolument normale et que dans l'ovaire l'épithelium germinatif se dépouille de ses éléments sexuels déjà différenciés et tend à devenir stérile, son repeuplement en éléments jeunes étant manifestement inhibé.

**Resühr B.** - Ueber den Bau und den Öffnungsmechanismus der Fucusoogonien [*De constitutione atque deiscentia in oogonis in « Fucus »*]. Flora, CXXIX, 336-346. Jena (1935). **b - 230**

**Scatizzi I.** - L'apparato renale nei Molluschi Prosobranchi [*Apparatus renalis in Molluscis Prosobranchiis*]. 1 tav., Arch. Zool. Ital., XXII, 181-195. Torino (1936). **b - 231**

L'A. ha preso in esame l'apparato renale di *Bythinia tentaculata* L. e *Paludina Vivipara* L. In ambedue i casi il rene è un organo di origine celobastica legato alla differenziazione del sacco pericardico. Descrizione citologica del rene. L'escrezione avviene per osmosi (cellule semplici) o per effrazione (cellule a vacuolo); le concrezioni giallo-nerastre che si osservano nel rene di *Paludina* sembrerebbero formate da una melanina unita ad un substrato insolubile.

**Strunk C.** - Studien über die Niere der Wellhornschnecke [*Inquisitiones de renibus speciei « Buccinum undatum »*]. Biol. Zentralbl., LV, 53-57. Leipzig (1935). **b - 232**

Morphologie der Niere. Physiologische Farbstoffuntersuchungen. Untersuchungen auf Zucker und Eiweiss. Harnsäure– Nachweis. Die Entleerung der Niere nach aussen.

## Glandulae et Hormones.

**Bevelander G.** - Branchial Glands in Fishes [*Piscium glandulae branchiales*] Journ. Morphol., LIX, 2, 215-224. Philadelphia, Pa. (1936). **b - 233**

Three different types and seven subtypes of intraepithelial glands in intimate association with the branchial epithelium of fishes are distinguished. Classification of the glands. There does not seem to be any definite correlation between the structural complexity of the glands and the evolution of fishes.

**Kanizslai L.** - Ricerche sulla morfologia del pancreas dei Pesci [*Inquisitiones de morphologia pancreatica in piscibus*]. 11 fig., Scritti Biol. racc. da L. Castaldi, X, 193-213. Cagliari (1935). **b - 234**

**Koch W. & Scheuring L.** - Die Wirkung von Hypophysenvorderlappenhormon auf den Laichakt von Fischen [*Agitur de effectu hormonis hypophysarii anterioris in fecundationem Piscium*]. Zool. Anz., CXVI, 3/4, 62-64. Leipzig (1936). **b - 235**

Bericht über einige in Brasilien und in Deutschland unternommene Versuche mit Einspritzungen um die Laichreife zu beschleunigen.

**Matthews S. A.** - The Pituitary Gland of *Fundulus* [*De glandula pituitaria in « Fundulus »*]. Anat. Rec., LXV, 3. Philadelphia (1936). **b - 236**

Analysis of the structure of the gland and its variations according to the seasons. Discussion on the function of the teleost pituitary; necessity of further research.

**Maxia C.** - Il pancreas intraepatico dei Pesci [*Inquisitiones in pancreas intrahepaticum Piscium*]. 12 fig., 1 tav., Scritti Biol. racc. da L., Castaldi, X, 81-126. Cagliari (1935). **b - 237**

Esame istologico del fegato di 44 specie di Pesci appartenenti a Selaci, Teleostei e Ganoidi. In base alle presenti ricerche e a studi precedenti si può stabilire la presenza di un pancreas juxta e intraepatico in 51 specie di Pesci.

**Maxia C.** - Focolai emopoietici nel fegato di Vertebrati ad organogenesi ultimata [*Vertebratorum loca haematopoietica in hepate, organogenesi perfecta*]. 8 fig., Scritti Biol. racc. da L. Castaldi, X, 249-289. Cagliari (1935). **b - 238**

Esame in 96 specie (di cui 43 di Pesci e 22 di Mammiferi) della comparsa di focolai emopoietici in fegati ad organogenesi ultimata, della loro topografia e di alcuni dei loro caratteri più appariscenti.

**Richard J. & Neuville H.** - Foie et sinus intra–hépatique du *Grampus griseus* [*Hepar et sinus intrahepaticus speciei « Grampus griseus »*]. Rés. Campagnes Scient., Fasc. XCIV, 7-9. Monaco (1936). **b - 239**

Dimensions et description du foie d'un exemplaire mensurant m. 2,92 de longueur totale.

**Tarao S.** - Microscopical Study on the Purple Gland of *Tethys punctata* Cuv. [*Studia microscopica quoad purpurae glandulam speciei « Tethys punctata »*]. 4 fig., 1 pl., Journ. Fac. Sci. Hokkaido Imp. Univ., III, 221-232. Sapporo (1934). **b - 240**

The red colour of *Tethys punctata* is produced by unicellular glands situated on the free edge of the mantle. The grains of secretion which form the purple derive directly from the mitochondries. The secretion gives also rise to some other albuminoid, viscous and aqeous substances.

**Tarao S.** - Microscopical Study on the Hypobranchial Gland of *Haliotis japonica* Reev with a Note on the Restitution of the Secretion [*Studia microscopica de hypobranchiali glandula speciei « Haliotis japonica » atque de secretione*]. Journ. Fac. Sc. Hokkaido Imp. Univ., IV, 103-114. Sapporo (1935). **b - 241**

**Vogt W.** - Die Entwicklung der Antennendrüse der Mysideen [*Accretio glandulae antennariae in Mysidaceis*]. 27 Abb., Ztschr. f. Morphol. u. Oekol. Tiere, XXIX, 481-506. Berlin (1935). **b - 242**

## Color et influentia pigmentorum.

**Abramowitz A. A.** - Physiology of the Melanophore System in the Catfish, *Ameiurus* [*De physiologia systematis melanophori in « Ameiurus »*]. 1 pl., 3 tabl., Biol. Bull., LXXI, 2, 259-281. Lancaster, Pa (1936). **b - 243**

The experiments reported here, with special reference to those of Smith (1931) and Parker (1934), show that the chromatic responses are chiefly connected with the nervous system directed by optic impulses and with humoral materials in the blood stream, which have some properties characteristic of adrenalin. The rôle of the pituitary gland.

**Brown F. A. Jr.** - Control of Pigment Migration within the Chromatophores of *Palaemonetes* [*Inspectio migrationis pigmentorum inter chromatophoros in « Palaemonetes »*]. 8 fig., Journ. Exp. Zool., LXXI, 1, 1-16. Philadelphia (1935). **b - 244**

The red, yellow, blue and white pigments are shown to be independent one from another and due to four different humoral agents, some of which seem to originate in the eye-stalks and others in the central nervous organs and in the cephalotorax.

**Brown F. A. Jr.** - Color Changes in *Palaemonetes* [*Colorum mutationes in « Palaemonetes »*]. Journ. Morphol., LVII, 2, 317-334. Philadelphia (1935). **b - 245**

The four pigments, red, yellow, blue, and white are all found exclusively within chromatophores and can be either dispersed into chromatophore branches or concen-

trated into chromatophore centers depending on the colour of the background upon which the animal lies.

Concentration of the pigments was found to be more rapid than dispersion.

**Cornil L., Mosinger M. & Calen M.** - La désintégration physiologique de l'appareil pigmentaire chez les Holothuries [*Disintegratio physiologica apparatus pigmentarii in Holothuriis*]. C. R. Soc. Biol., CXIX, 106. Paris (1936). **b - 246**

Recherches sur *Holothuria nigra* et *H. tubulosa* ont démontré que les cellules en pigmentolyse sont entourées d'amibocytes souvent chargés de granulations pigmentaires.

**Fox D. L.** - Structural and Chemical Aspects of Animal Coloration [*Habitus structuralis et chemicus colorationis Animalium*]. Amer. Natur., LXX, 477-493. Boston (1936). **b - 247**

Structural coloration. Chemical constitution of colours. Animal pigments: Carotenoids, Anthraquinones, Flavones, Anthocyanins, Lyochromes, Pyrrolic compounds, Melanins, Indol and Purine derivatives.

**Fox D. L.** - Further Studies of the Carotenoids of Two Pacific Marine Fishes, *Fundulus parvipinnis* and *Hypsypops rubicunda*, and of a Marine Annelid *Thoracophelia* Sp. [*Studia recentiora de carotinoideis duorum Piscium marinorum* « *Fundulus parvipinnis* » *et* « *Hypsypops rubicunda* » *Annellidique marini* « *Thoracophelia* »]. Proc. Nat. Acad. Sc., XXII, 1, 50-54. Washington (1936). **b - 248**

Spectrometrical data on the carotenoid pigment. While the polychaete worm *Thoracophelia* seems to possess exclusively carotene and carotenoid pigment and *Hypsypops* yields a single pigment of the xanthophyll group, *Fundulus* feeding upon *Thoracophelia* or *Hypsypops*, stores in its tissues only a xanthophyll very similar to that of *Hypsypops*.

**Gudger E. W.** - A Reversed almost wholly ambicolorate Summer Flounder, *Paralichthys dentatus* [*Solea quaedam aestiva ambicolorata sensu inverso*]. 3 figs., Amer. Mus. Novit., 896, 1-5. New York (1936). **b - 249**

This specimen was taken at Freeport, Long Island July 21, 1935 and is the most abnormal flounder ever seen by A. The normal fish. The reversed fish: The upper and dark side, the lower and ambicolorate side.

**Gudger E. W.** - Ambicoloration partial and complete, in the Southern Flounder, *Paralichthys lethostigma* [*Ambicoloratio partialis et completa speciei* « *Paralichthys lethostigma* »]. 6 figs., Amer., Mus. Novit., 897, 1-7. New York (1936). **b - 250**

The normal fish. A partially ambicolorate fish without eye and dorsal fin anomalies. An almost totally ambicolorate fish with eye almost over dorsal crest and with a hooked dorsal fin. A completely ambicolorate specimen with incompletely rotated eye and hooked dorsal fin.

**Gudger E. W. & Firth F. E.** - Three partially ambicolorate four-spotted Flounders, *Paralichthys oblongus*, two each with a hooked dorsal Fin and a partially rotated Eye [*Pleuronectidae tres partialiter ambicoloratae quattuormaculatae speciei* « *Paralichthys oblongus* » *ex quibus duae pinna dorsali uncinata praeditae, oculoque partialiter rotato*]. 6 figs., Amer. Mus. Novit., 885, 1-9. New York (1936). **b - 251**

The normal fish. A partially ambicolorate specimen without eye or dorsal fin anomaly. Two partially ambicolorate specimens each with a partially rotated eye and a hooked dorsal fin. Historical note.

**Lederer E.** - Les caroténoïdes des animaux [*De carotinoideis Animalium*]. Actualités Scient. et Industr., 238, 3-62. Hermann Ed. Paris (1935). **b - 252**

Les caroténoïdes chez les Tuniciers, Mollusques, Crustacés, Echinodermes, Coelentérés et Spongiaires et leurs rapports avec la Vitamine A. Les caroténoïdes des vertébrés sont des pigments végétaux absorbés avec la nourriture: chez les invertébrés on trouve des caroténoïdes spéciaux, synthétisés par l'animal ou résultant d'une transformation des caroténoïdes de la nourriture.

**Parker G. H.** - The Chromatophoral Neurohumors of the Dogfish [*Liquidi chromatophorici speciei* « *Mustelus canis* »]. Journ. Gen. Physiol., XVIII, 837-846. New York & Baltimore (1935). **b - 253**

The changing color shades from light to dark of *Mustelus canis* are due to the uneven spreading of a pigment in connection with a secretion of the pituitary gland. This secretion is transported by the blood and under the control of the nerves.

**Parker G. H.** - Integumentary Color Changes in the newly-born Dogfish, *Mustelus canis* [*Coloris mutationes integumentariae in specie* « *Mustelus canis* », *modo nata*]. 1 pl., Biol. Bull., LXX, 1, 1-7. Lancaster, Pa. (1936). **b - 254**

From the experiments described here it is concluded that newly-born Dogfishes respond to the tint of their environment by appropriate melanophore reactions, and that, after a transverse cut in the fin, a pale band is formed from the cut toward the free edge of the fin just as by adult species. This shows that the newly-born *Mustelus*, has no primary phase of melanophore activity but begins life with a melanophore system that responds in the same way as in the adults.

**Parker G. H.** - Color Changes in Elasmobranchs [*Coloris mutationes in Elasmobranchiis*]. Proc. Nat. Acad. Sc., XXII, 1, 55-60. Washington (1936). **b - 255**

*Squalus acanthias* sometimes changes from a dark tint to a pale one. A:s investigations on the color changes have shown that the melanophore system of *Squalus* depends on the activation of its dark phase upon a pituitary neurohumor carried in the blood. Its pale phase is almost if not fully independent of nerves and probably results from the absence of pituitary neurohumor.

**Rodio G.** - Sui pigmenti delle Feoficee [*De pigmentis in Phaeophyceis*]. Bull. Orto Bot., R. Univ. di Napoli, XIII, 43-115. Napoli (1936). **b - 256**

Risultati di ricerche originali sulla funzione della fucoxantina. Si rileva il comportamento non uniforme delle alghe brune sperimentate, rispetto alle radiazioni della zona più rifrangibile e gli effetti diversi, dovuti alla concentrazione del filtro cupro-ammoniacale adoperato; effetto del filtro verde, dimostratosi più vantaggioso per l'alga bruna che per l'alga verde. L'adattamento cromatico si attua verosimilmente nelle alghe brune sperimentate, specialmente se viventi in zone superficiali, nel golfo di Napoli, nel settore del verde e del blu-verde; in profondità maggiori entrerebbe in gioco anche la fucoxantina, pur restando ampia possibilità di usufruire di radiazioni nel verde-blu, notevolmente penetranti.

**Sexton E. W. & Clark A. R.** - Variations in the White Pigment of the Eye in *Gammarus chevreuxi* Sexton, with a Description of a new Genetic Type, the « Clotted Eye » [*De variationibus pigmenti albi in oculo speciei* « *Gammarus chevreuxi* » *cum descriptione novi cuiusdam typi*

*genetici idest oculi grumosi*]. 1 fig., Journ. Mar. Biol. Ass., XX, 3, 691–699. Plymouth (1936). **b - 257**

Five different classes of variations from the normal type (according to the parts affected) have been determined during the work carried out from 1912 until now. Two classes are dealt with here: that of variations affecting the white pigment of the eye and that of variations in the structure of the eye involving also the structure of the head.

**Vasnetzov V.** - Ueber die Entwicklung des Musters bei den Knochenfischen [*De progressione circa adumbrationem a pigmento formatam in Teleosteis*]. 38 Abb., Trav. Lab. morphol. évol., II, 1, 5-81. Léningrad (1934). **b - 258**

Ursprüngliche und jetzige Färbung der Haut. Die Färbung einer Abart der Knochenfische. Möglichkeit das Muster in seiner weiteren Evolution zu verfolgen. Die oberflächliche Färbung unabhängig von der tiefliegenden.

**Verrier M. L.** - Pigments mélaniques, pourpre rétinien et cellules visuelles [*De pigmentis melanicis, purpura retinica et cellulis visivis*]. C. R. Soc. Biol., XCV, 1590. Paris (1934). **b - 259**

Importance du pigment mélanique dans la formation du pourpre rétinien. Comparaison entre *Scyllium* et la girelle.

**Verrier M. L.** - Pourpre et cellules visuelles de la fovea des oiseaux nocturnes et des autres vertébrés [*De purpura atque visionis cellulis in fovea avium nocturnarum aliorumque vertebratorum*]. C. R. Acad. Sc., CCII, 24, 2012-2014. Paris (1936). **b - 260**

Observations faites sur les fonds d'yeux et les rétines étalées de 5 oiseaux nocturnes et de 20 Téléostéens (Serrans, Blennies, Girelles) qui conduisent à penser que les divers modes de sensibilité de la fovea, comparés à ceux des régions rétiniennes extrafovéales ne relèvent pas de la forme des cellules visuelles et de la répartition du pourpre, et que d'autres dispositions anatomiques peuvent intervenir, telles que la répartition de la mélanine et du pigment jaune maculaire. (Après l'A.).

**Welsh J. H.** - Diurnal Movements of the Eye Pigments of *Anchistioides* [*Pigmentorum motus diurni in specie « Anchistioides »*] 2 figs., 1 pl., Biol. Bull., LXX, 2, 217-227. Lancaster, Pa. (1936). **b - 261**

The distal pigment cells and the reflecting pigment in the eyes of *Anchistioides* continue their characteristic movements under constant external conditions. The persistance of this diurnal rhythm indicates that an internal cyclical mechanism is responsible, in part, for pigment movements in crustacean eyes. Possibility of the function of the blood gland or X-organ in the diurnal rhythm. (From A:s summ.).

**Wykes U.** - Observations on Pigmentary Co-ordination in Elasmobranchs [*Observationes de adjunctione pigmentaria in Elasmobranchiis*]. Journ. Exper. Biol., XIII, 460-466. Cambridge (1936). **b - 262**

No chromatophore changes shown by the section of the spinal nerves to the pectoral fins, electrical stimulation of these nerves, or of the hoemal canal or of the skin. Slight paling was shown in *Raia brachyura* and *Rhina squatina* after the injection of adrenaline. After ligatura of the dorsal aorta white adapted specimens of *R. brachyura* became dark anterior to the point of ligature within three hours when placed on a black ground.

## Regeneratio, autotomia et muta.

**Abeloos M.** - La Régénération et les problèmes de la Morphogenèse [*De regeneratione deque problematis morphogeneticis*]. 54 fig., 253 pp. Gauthier-Villars. Paris (1935). **b - 263**

Aperçu des recherches des expérimentateurs sur les aspects de la régénération dans les différents organismes. Phénomènes connexes à la régénération et le pouvoir regénérateur dans le règne animal. Les problèmes de l'histogenèse dans la régénération et de la différenciation des régénérats. Croissance normale et croissance régénératrice. Les anomalies de la régénération.

**Andrews E. A.** - Shell Repair by the Snail *Neritina* [*Reconstructio conchae in « Neritina »*]. 9 figs., Journ. Exp. Zool., LXX, 75-107. Philadelphia, Pa. (1935). **b - 264**

The new shell starts from a line along the broken shell edge and grows away from this gradually. After the removed shell is regrown, the entire mantle border resumes its activity in advancing the shell edge. Growth of the shell lip involves sequential activities of the following parts: first, mantle groove, then mantle gland, then pigment cells, finally more remote epidermis, to make the hypostracum. (A.).

**Banz E.** - Zur Morphologie und Histologie der Flossenregeneration bei Knochenfischen unter besonderer Berücksichtigung von *Misgurnus fossilis* L. [*De morphologia et histologia regenerationis pinnarum in Piscibus osseis, praecipue relate ad speciem « Misgurnus fossilis »*]. 14 Abb., Zool. Anz., CXII, 209-230. Leipzig (1935). **b - 265**

Versuche. Morphologisches: Schwanzflossen - Rükkenflossen - und Schwanzregeneration. Histologisches: Wundbedeckung und Epidermisregeneration. Regeneration der Lepidotrichien. Strahlenregeneration in der Rückenflosse. Regenerationsvorgänge an der tief abgeschnittenen Rückenflosse. Muskelregeneration. Regeneration des straffen Coriums.

**Busson Y.** - L'autonomie et la régénération de la Pince chez le Bernard l'Ermite [*De autotomia et regeneratione quoad uncum in « Eupagurus Bernhardus »*]. 3 figs., 2 pls., Trav. Stat. Biol. Roscoff, 13, 133-152. Paris (1935). **b - 266**

Étude entreprise dans le but d'élucider les processus histologiques de l'autotomie réflexe et de la régénération de la pince chez *Eupagurus Bernhardus*. Formation de la membrane dans le plan d'autotomie, cicatrisation, prolifération intense des cellules. D'après les résultats de ce travail, la reconstruction des différents tissus de la pince, au cours de la régénération, est conforme à la théorie des feuillets.

**Dawes B.** - A Study of Normal and Regenerative Growth in the Pistol-Crab, *Alpheus dentipes* (Guér.), with special Reference to the Phenomenon of Chela Reversal [*De accretione normali et regeneraticia in specie « Alpheus dentipes ». Agitur particulatim de inversione chelarum*]. 13 figs., Roux Arch. Entwickl.– Mech. Organ., CXXXI, 4, 543-574. Berlin (1934). **b - 267**

Repeated regeneration of new chelae with little or no waning of growth intensity. Simultaneous regeneration of chelae. Autotomy of nipper and of crusher.

**Drach P.** - Le cycle parcouru entre deux mues et ses principales étapes chez *Cancer pagurus* Linné [*De cyclo inter duas mutationes eiusque*

*praecipuis periodis in « Cancer pagurus »*]. C.-R. Acad. Sc., CCII, 25, 2103-2105. Paris (1936). **b - 268**

L'A. communique les résultats de ses observations sur les 12 stades d'intermue qu'il a récupérés chez *C. pagurus* L. et dont la distinction, selon son opinion, devra servir de base à toute étude physiologique ou biochimique sur les Décapodes.

**Nouvel L.** - Sur un mode de régénération des appendices locomoteurs, particuliers aux Crangon [*De particulari regeneratione quoad appendices locomotorias in « Crangon »*]. C. R. Acad. Sc., CCII, 7, 584-586. Paris (1936). **b - 269**

Après avoir relevé que les processus régénérateurs après amputation des péréiopodes chez des crevettes appartenant à différentes familles dans presque tous les cas sont identiques à celles qu'il a décrit chez *Leander serratus* (V.: C. R., CXCVIII, 1934, p. 611), l'A. illustre dans cette Note ces processus régénérateurs qui présentent une évolution notablement différente chez la crevette grise. *Crangon crangon* (L.) (= *vulgaris* Fabr.).

**Stolte H. A.** - Die Herkunft des Zellmaterials bei regenerativen Vorgängen der wirbellosen Tiere [*De cellularum origine in phaenomenis regenerationis Invertebratorum*]. (Engl. Rés.). 12 Abb., Biol. Rev., Cambridge Phil. Soc., XI, 1, 1-48. London (1936). **b - 270**

Das Problem ist in *Porifera, Coelenterata, Turbellaria, Nemertines, Polychaeta, Oligochaeta, Gephyrea, Bryozoa, Tunicata,* und in einigen Fällen auch bei Arthropoden, Mollusken und Echinodermen vom physiologischen Standpunkt betrachtet worden. Nach jeder Gruppe folgt eine kurze Zusammenfassung und am Ende ist eine Gesamtauffassung in Bezug auf die Bedeutung der Zellen der drei Keimblätter bei der Regeneration gezogen.

**Vialli V.** - Un caso di rigenerazione in un Echinide [*Casus regenerationis in Echinide quodam*]. 2 fig., Riv. It. Paleontol., XLII, 1/2, 19-23. Pavia (1936). **b - 271**

L'A. descrive un fenomeno di rigenerazione avvenuto negli ambulacri di *Echinospatangus argillaceus.* Cott. del Neoconiano di Digues in Francia, in seguito probabilmente a ferita interessante il guscio e conseguentemente il sistema acquifero sottostante.

**Zirpolo G.** - Sul potere rigenerativo della regione del disco dell'*Astropecten aurantiacus* L. [*De potentia regeneratricia in disci regione speciei « Astropecten aurantiacus »*]. 3 fig., Arch. Zool. Ital., XXII, 2, 175-180. Torino (1936). **b - 272**

L'A. descrive un nuovo caso di rigenerazione osservato nell'*Astropecten aurantiacus* e discute sulle probabilità di rigenerazione delle varie specie. Ammette la localizzazione di blastomeri rigenerativi, totipotenti in punti vari del corpo, che entrano in attività quando una causa qualsiasi li cciti. (A).

## Squamae piscium – Determinatio aetatis animalium marinorum.

**Chevey P.** - La méthode de lecture des écailles et les poissons de la zone intertropicale [*Modus legendi squamas Piscium regionis intertropicalis*]. 5 fig., 5 pl., Inst. Océanogr. Indochine (Communic. 5e Congrès Pacifique Vancouver 1933), 29,51-66. Saigon (1936). **b - 273**

Détermination de la variation thermique minima nécessaire pour marquer les écailles et son effet pour le problème des migrations des poissons, dans les mers chaudes. Analyse du rythme du développement des poissons capturés sur les bancs du Mékong par l'examen des écailles: les arrêts de croissance indiquent des mauvaises conditions d'existence. Les écailles sont aussi des instruments enregistreurs de conditions physiques difficilement saisissables.

**Clark R. S.** - Age Composition of Haddock in European Waters. With a Contribution of D. S. Raitt [*Aetatis compositio speciei « Gadus aeglefinus » in aquis europaeis. Contributio redacta a* D. S. Raitt]. 1 graph., 1 table. Cons. Expl. Mer, Rapp. & Pr.-Verb., CI, 3e partie, 2, 4pp. Copenhague (1936). **b - 274**

Distribution and natural boundaries. Fishing grounds (statistical table). The age composition in the North-East Atlantic covering the period 1916–1935 (D. S. Raitt). Comparison of year-classes in different regions. Conclusional remarks: the stocks of the North-East Atlantic and the neighbouring seas are quite independent of each other.

**Dorofeew S. W. & Klumow S. K.** - Ueber Altersbestimmung des Weisswals (*Delphinapterus leucas* Pall.) und Zusammensetzung der Herde [*Aetatis determinatio et compositio turmae speciei « Delphinapterus leucas »*]. (In Russ., Dtsch. Rés.). 3 Abb., 3 Tab., Trans. Inst. Fish. & Oceanogr. U S S R (V N I R O), III, 24-34. Moscow & Leningrad (1936). **b - 275**

Die Vf. Vf. sind auf Grund ihrer Untersuchungen über Farbe, Masse der Wale, Ernährung und Geschlechtsreife zu der Schlussfolgerung gekommen, dass jede Altersgruppe eine charakteristische Farbe hat.

**Ebina Ken-ichi** - On the Growth of *Pagrosomus major* [*De accretione speciei « Pagrosomus major »*]. (In Jap., Engl. Rés.). 8 tabl., Bull. Jap. Soc. Scient. Fish., IV, 6, 411-414. Tokyo (1936). **b - 276**

Reading the number of the annual rings of the scales on several specimens of *Pagrosomus major*, the A. found that they ranged from 1 to 26 years. These teleosts collected from Mito seem to be slower in growth than the same species derived from the Inland Sea of Japan.

**Fach M.** - Zur Entstehung der Fischschuppe [*De origine squamarum Piscium*]. 19 Abb., Ztschr. Anat. u. Entwickl. gesch., CV, 3, 288-304. Berlin & München (1935). **b - 277**

Die verschiedenen Entwicklungsstadien der Schuppe können bei jungen Tieren sehr deutlich bei dem Schwanz gesehen werden, der in direkter Verbindung mit der Epidermis steht. Wachstum des Schwanzes. Bildung der Schuppe.

**Järvi T. H. & Menzies W. J. M.** - The Interpretation of the Zones of Scales of Salmon, Sea Trout and Brown Trout [*Interpretatio quoad zonas squamarum in speciebus « Salmo salar », « Salmo trutta » et « Salmo trutta var. fario »*]. 82 figs., tables. Cons. Expl. Mer, Rapp. & Pr.-Verb., XCVII, 3-63. Copenhague (1936). **b - 278**

The readings are applied to age determination and length calculations. The reproduction of scales from the North Sea and the Baltic are published side by side in order to compare more easily similiarities as well as differences.

**Koumans F. P.** - A Case of Increase of the Number of Scales during Growth in Fishes [*De numerica augmentatione squamarum inter Piscium accretionem*]. 3 figs., Temminckia, 1, 267-276. (?) (1936). **b - 279**

Large specimens of *Eleotris* (*Oxyeleotris*) *fimbriatus* have much more scales than small ones varying in a longitudinal line between 45 and 77. The same fact but to a lesser degree has also been found in *Cepola krusensterni* and *C. mesoprion.*

**Mac Farlane P. R. C.** - Salmon of the River Nith - 1935 [*De Salmone in flumine* Nith]. 1 table, 7 tables o. t., Fish. Bd Scottl., Salmon Fish., III, 3-16. Edinburgh (1936). **b - 280**

A collection of scales and measurements from 801 salmon caught in the Nith in 1935 forms the basis of this Report. The composition of the stock has been determined with especial reference to the age groups, the smolt ages, the average sizes, the calculated lengths, the growth increments of summer fish, and erosion.

**Mac Farlane P. R. C.** - Salmon of the River Tay, 1934 [*De Salmone in flumine* Tay]. 1 diagr., tables, 6 tables o. t., Fish. Bd Scottl., Salmon Fish., V, 3-22. Edinburgh (1936). **b - 281**

Report on the results of readings and measurements of 2,329 sets of scales from salmon and grilse taken in the Tay throughout the season 1934 correlated with percentage figures of total catch. The contents of the Report is as follows: Introduction. Material. Age groups. Smolt ages. Average sizes. Condition. Calculated lengths. Growth increments of summer fish. Erosion.

**Nardi F.** - Zur Genese der Fishschuppe [*De genesi squamarum Piscium*]. Biol. Zentralbl., LVI, 11/12, 630-639. Leipzig (1936). **b - 282**

Kritische und erörternde Uebersicht der Hypothesen verschiedener Autoren über die Schuppenbildung. Vf. ist der Ansicht, dass die Epidermis kein Material zur Schuppenbildung liefert, obwohl sie für die Festlegung des Ortes der Schuppenanlage, für die Determination und Anordnung zum Schuppenkeim gewisser Zellen eine ausschlaggebende Bedeutung hat. Neue experimentelle Forschungen nötig um dies Problem ganz aufzuklären.

**Neave F.** - Origin of the Teleost Scale Pattern and the Development of the Teleost Scale [*De origine constitutionis squamarum Teleosteorum deque progressu squamae Teleosteorum*]. Nature, CXXXVII, 3477, 1034-1035. London (1936). **b - 283**

A. gives an account of the general process of scale formation based on his own recent investigations and those of others which are contrary to the theory developed by Backman in this respect. (See Verhandl. anat. Ges., 41, Jena).

**Newcombe Curtis L.** - Validity of Concentric Rings of *Mya arenaria*, L. for determining Age [*Validitas annulorum concentricorum speciei « Mya arenaria » ad aetatem determinandam*]. Nature, CXXXVII, 3457, 191-192. London (1936). **b - 284**

Referring to preceding researchers A. states that *Mya arenaria* of the Bay of Fundy possess certain concentric rings more conspicuous than others and that variations occur according to different latitudes. The annual growth increments have been verified by experiments. (See also Nature, 3463, p. 462).

**Runnström S.** - A Study on the Life History and Migrations of the Norwegian Spring-Herring based on the Analysis of the Winter Rings and Summer Zones of the Scale [*De vitae cyclo deque migrationibus aringi vernini norvegici quorum fundamenta ponuntur in analysi annulorum hiemalium et in zonis aestivis squamarum*]. 15 figs., 3 pls., Fiskerid. Skr. Ser. Havunders. (Rep. Norw. Fish. & Mar. Invest.), V, 2, 1-163. Bergen (1936). **b - 285**

Analysis of the character of the winter rings, the growth and the bearing of these factors on the life history and migrations of the Norwegian spring herring.

**Tesch J. J.** - Length, Age Distribution and Growth of Herring in the Flemish Bight 1935-36 [*Longitudo, aetatis distributio et accretio Aringorum in baja nomine* Flemish Bight *1935-36*]. 3 figs., Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 3e partie, 11-14. Copenhague (1936). **b - 286**

The data obtained verify those of preceding investigations. It has also been shown that the probable age of each particular herring can be determined in a general way by taking the unity of the number (in cm) above 20 cm of its length.

**Uno M.** - Age Composition of *Theragra chalcogramma* (*Pallas*) [*Determinatio aetatis speciei « Theragra chalcogramma »*]. (In Jap., Engl. Rés.). 2 tabl., Bull. Jap. Soc. Scient. Fish., V, 3, 173-174. Tokyo (1936). **b - 287**

Measurements of body lengths and weights, determination of age by counting winter rings on vertebra, sex ratio, composition of shoals, growth rate.

**White H. C.** - Age Determinations of Salmon Parr by Effect of Rate of Growth on Body Proportions [*Aetatis determinatio in salmonibus juvenibus ex effectu stadii accretionis in corporis proportiones*]. 4 figs., Journ. Biol. Bd Canada, II, 4, 379-382. Toronto (1936). **b - 288**

Rapidly growing fish (as shown by scales) have short heads and small eyes. Plotting eye diameter against length of fish places, with few exceptions, each year class in a separate zone. On this basis age may be determined. (A.).

## Varia.

**Ankel W. E.** - Die Frassspuren von *Helcion* und *Littorina* und die Funktion der Radula [*De ciborum vestigiis per « Helcion » et « Littorina » formatis deque radulae officio*]. 8 Abb., Zool. Anz., Suppl. 9, 174-182. Leipzig (1936). **b - 289**

Der Verlauf des Fressvorgangs bei *Helcion* und bei *Littorina* wird eingehend beschrieben und auf Grund der verschiedenen Frassspuren wird ein Vergleich zwischen der Funktion der Radula der beiden Arten gemacht.

**Buddenbrock (von) W.** - What Physiological Problems are of Interest to the Marine Biologist in His Studies of the most important Species of Fish ? [*Quae problemata maioris momenti pro biologo marino in praecipuis piscium speciebus studendis ?*]. (Text in German). Cons. Expl. Mer, Rapp. & Pr.-Verb., CI, 1ère partie, No. 1, 14 pp. Copenhague (1936). **b - 290**

Referat des dem Präsidium der Internationalen Meeresforschung gehaltenen Vortrags. Sinnesphysiologie. Wasserhaushalt. Atmungs- und Blutphysiologie. Ernährungsphysiologie. Fortpflanzung der Fische. Zusammenfassendes Gesamtergebnis.

**Lamy E.** - Émissions sonores produites par des Mollusques [*De emissionibus sonoris in Molluscis*]. Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 31-35. Bruxelles (1936). **b - 291**

Aperçu historique des opinions sur les bruits émis par les mollusques et sur les causes qui peuvent intervenir pour amener la production de bruits. La genèse des sons émis est un phénomène très complexe.

**Linke O.** - Nachträglich veränderte Lebens-Spuren im Schlickwatt [*Vestigia ab animalibus formata in argilla nomine* Schlickwatt *et eorum*

*mutationes*]. 4 Abb., Natur u. Volk, LXVI, 5, 250-252. Frankfurt a. M. (1936). **b - 292**

Kriechspuren von *Hydrobia ulvae* und *Littorina littorea* und ihre Veränderungen durch Austrocknung.

**Nomura S. & Katai K.** - On the Occurrence of Peculiar Shaped Concretions Probably due to Certain Decapod Crustaceans [*De concretionibus, notandum in modum conformatis, probabiliter Crustaceorum Decapodorum causa*]. Jap. Journ. Geol. & Geogr., Trans. & Abstr., XIII, 1/2, 57-61. Tokyo (1936). **b - 293**

Referring to the works of Hayasaka and Takahashi on the burrows of living crabs. A. A. here describe four peculiarly shaped concretions in the form of « curved sandpipes » containing fragments of fossil Mollusca and Foraminifera, which are probably burrows of fossil crabs. Importance of these fossil moulds of burrows from a paleontological point of view.

**Portier P.** - Température de vertébrés marins [*Temperaturae in Vertebratis marinis*]. Rés. Campagnes Scient., XCIV, 17. Monaco (1936). **b - 294**

Cétacés: *Orca gladiator* dont la température est relativement basse pour un mammifère.

**Portier P.** - Température des Cétacés [*Temperaturae in Cetaceis*]. Rés. Campagnes Scient., XCIV, 34. Monaco (1936). **b - 295**

Chez *Orca gladiator* l'A. a trouvé une température de 36°,7 dans le rectum.

**Schwartz W.** - Ueber den Oberflächenschleimgehalt von Seefischen [*De muco in superficie piscium marinorum*]. Dtsch. Fischwirt., III, 1, 6-7. Berlin (1936). **b - 296**

Vortrag gehalten bei der Eröffnung der Aussenstelle des Kältetechnischen Institutes Karlsruhe am Institut für Seefischerei im Wesermünde am 22. November 1935, enthaltend einen kurzen Bericht über die vom Vf. durchgeführten mikrobiologischen Untersuchungen an Bord der Fischdampfer « Antares » und « Baden » über den Oberflächenschleimgehalt von Seefischen und seinen Einfluss auf das allmähliche Verderben derselben, sowie über die Infektionsquellen bei der Gewinnung, beim Transport und Verarbeitung der Fische.

**Suyehiro Y.** - Some Observations on the Unusual Behaviour of Fishes prior to an Earthquake [*Observationes quoad notandam rationem agendi aliquorum Piscium ante terrae motum*]. 1 pl., Bull. Earthquake Res. Inst., Suppl. 1, 228-231. Tokyo (1934). **b - 297**

Some instances showing that the fishes, among others, *Sardina melanosticta* and *Nemicthys avocetta* had left the bottom of the sea before the earthquake.

**Yasaki Y. & Haneda Y.** - Ueber einen neuen Typus von Leuchtorgan im Fische [*Organum luminescens novum in Piscibus*]. 4 Abb., Proc. Imp. Acad., XII, 2, 55-57. Tokyo (1936). **b - 298**

Das hier beschriebene Organ der *Acropoma japonicum* unterscheidet sich von denen bisher bekannten dadurch, dass es in der Bauchmuskel eingeschlossen und also vom aussen nicht sichtbar ist. In der Leuchtdrüse sind symbiotisch lebende Leuchtbazillen, *Coccobacillus acropoma*, vorhanden.

**Zapfe H.** - Lebensspuren grabender Echiniden aus dem Eozän Siebenbürgens [*Vestigia Echinorum perforantium sedimina eocenica regionis* Siebenbürgen]. 4 Abb., Verh. Zool. - Bot. Ges. Wien, 1935, LXXXV, 1/4, 42-52. Wien (1936). **b - 299**

Bericht über Funde von Bohr- oder Grabgängen, welche Vf. als die Grabspuren des rezenten *Echinocardium cordatum* auffasst. Eingehende Beschreibung der Lebensweise dieser Art. Andere ähnliche Funde.

# PROCREATIO

## Maturitas sexualis — Cellulae sexuales — Physiologia fecundationis — Characteres sexuales secundarii - Genetica.

**Barigozzi C.** - Il legame genetico fra i biotipi partenogenetici di *Artemia salina* [*Ligamen geneticum inter biotypos parthenogeneticos speciei « Artemia salina »*]. 1 fig., 2 tav., Arch. Zool. Ital., XXII, 2, 33-77. Torino (1936). **b - 300**

L'A. descrive l'ovogenesi del biotipo tetraploide partenogenetico e completa le conoscenze circa l'ovogenesi del biotipo octoploide partenogenetico di Margherita di Savoia e dell'Istria (Rovigno). In un piccolo gruppo di uova prodotte in ritardo, si osservano forme di divisioni abortite che permettono il raddoppiamento di cromosomi. L'A., ipotetizza che tali fenomeni maturativi aberranti siano in relazione con particolari proprietà plasmatiche delle uova prodotte in ritardo, forse indotte da cause esterne non ancora ben determinate, e ha osservato forme di autopoliploidismo nel biotipo octoploide che volgerebbero alla produzione di un biotipo ipotetico diacisoctoploide con 336 cromosomi (dall'A.).

**Boettger C. R.** - Ueber Arthybriden bei Mollusken [*De formis hybridis Molluscorum*]. 4 Abb., Sitz. ber. Ges. Naturf. Freunde, II, 4/7, 141-170. Berlin (1935). **b - 301**

Beispiele von Begattungen zwischen verschiedenen Arten: Kopulationen, die nicht zur Hybridation führen und Ursachen dazu; mögliche aber selten vorkommende Hybridation. Molluskenhybriden bei nahe verwandten Arten. Die Fruchtbarkeit der Molluskenhybriden. Nachschrift über einen Bericht von S. Emura über eine atypische Begattung.

**Boucher S. M. & Fontaine M.** - Sur la maturation provoquée des organes génitaux de l'Anguille [*De maturatione constricta in organis genitalibus anguillae*]. C. R. Soc. Biol., CXVI, 1284. Paris (1934). **b - 302**

On peut provoquer une évolution maturative des glandes génitales de l'anguille avec une injection, dans la région caudale, d'urine de femme enceinte.

**Brien P.** - Contribution à l'étude de la reproduction asexuée des Phylactolemates [*Contributiones in studendam reproductionem asexuatam quoad*

*Phylactolemates*]. 28 fig., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 569-625. Bruxelles (1936). **b - 303**

Etude des éléments régénérateurs dans les bourgeons d'accroissement et les bourgeons de dissémination chez les Bryozoaires Phylactolémates, les *Plumatella fungosa* et les *Fredericella sultana* dans le but de résoudre le problème de l'origine de ces éléments. Considérations générales sur le cystide et l'accroissement de la colonie d'un Bryozoaire, et observations personnelles. Dans chaque cystide individualisé, la paroi ventrale présente une zone spéciale près de la région orale du polypide, dans un état physiologique particulier, favorable au bourgeonnement et à la croissance indéfinie.

**Chaldinowa N.** - Study on the Spawning, Eggs and Larvae of *Eleginus* (*Gadus*) *Navaga* Pall. [*Studium circa fecundationem, ova et larvas speciei « Eleginus* (*Gadus*) *Navaga* ». (In Russ., Engl. Rés.). 8 figs., tabl., Zool. Journ., XV, 2, 321-339. Moskva (1936). **b - 304**

Distribution of *Eleginus* (*Gadus*) *Navaga* in the White Sea. Account of the artificial fertilization and incubation of eggs undertaken in different salinities and temperature in 1931, 1933 and 1934; results expressed in tables and figures. Some conclusions with regard to salt content and temperature necessary for development, pigment formation etc. Comparison with *Navaga* larvae from other regions.

**Coe W. R.** - Sequence of functional sexual Phases in *Teredo* [*De sequentia quoad phases sexuales functionales in « Teredo »*]. 1 fig., 2 tabl., Biol. Bull., LXXI, 1, 122-132. Lancaster, Pa. (1936). **b - 305**

This study is based on the examination of the gonads of 2.987 specimens of *Teredo navalis* of all ages, at all seasons and during three successive years. Factors concerned with the functional phase. Typical sequence of phases. Proportion of individuals in each functional sexual phase at successive ages and at different seasons. Comparison with the sexual changes in oviparous Oysters and *Venus*.

**Coe W. R.** - Environment and Sex in the oviparous Oyster, *Ostrea Virginica* [*De ambiente et sexu speciei « Ostrea Virginica », oviparae*]. 2 tabl., Biol. Bull., LXXI, 2, 353-359. Lancaster, Pa. (1936). **b - 306**

In the northern part of its range the Virginia oyster appears to be mainly or wholly protandric, while in somewhat warmer waters, a considerable proportion of the young oysters function as females during their first breeding season, which occurs at the age of one year. The more favorable the conditions are for the rapid growth of the young oyster, the more likely is the initial phase to be omitted or aborted. Hence the localities and seasons in which the yearling oysters reach the largest mean size usually have the largest proportion of females in the first breeding season. (A.).

**Coe W. R.** - Sexual Phases in *Crepidula* [*Phases sexuales in « Crepidula »*]. Journ. Exper. Zool., LXXII, 3, 455-477. Philadelphia (1936). **b - 307**

Association with older individuals, although usual, is not essential for the full development of the primary (♂) phase of sexuality. Contrary to widely accepted evidence, completely isolated young may become as fully functional ♂♂ as similar individuals which have been associated with adults in the ♀ phase. But the duration of the ♂ phase may be either abbreviated or prolonged by associations or other environmental conditions. (From A:s rés).

**Coe W. R.** - Sex Ratios and Sex Changes in Mollusks [*Relationes inter sexus et mutationes sexuales in Molluscis*]. 3 figs., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 69-76. Bruxelles (1936). **b - 308**

The sex ratios in a collection of Mollusks belonging to the forms: *Venus*, *Ostrea*, *Teredo*, *Patella* and *Crepidula*, depend upon the locality from which they come, the season, the age and size of the individuals selected and the associations.

**Crawford Dildine G.** - Studies in Teleostean Reproduction. I. Embryonic Hermaphroditism in *Lebistes reticulatus* [*De reproductione Teleosteorum. I. De hermaphroditismo embryonis in specie « Lebistes reticulatus »*]. 2 pl., 7 fig., Journ., Morphol., LX, 1, 261-278. Philadelphia (1936). **b - 309**

This study is based on the investigations of 155 *Lebistes* embryos. The embryonic hermaphroditism is followed through all stages from the formation of the genital ridges (3.0 mm) until birth (6.5 to 7.0 mm). Witschi's explanation of the sex determination in *Lebistes* is confirmed and it is suggested that in Teleosts as in some other animal groups the gonads develop from two distinct portions, a male medulla and a female cortex.

**Dalcq A., Pasteels J. & Brachet J.** - Données nouvelles (*Asterias glacialis, Phascolion Strombi, Rana fusca*) et considerations théorétiques sur l'inertie de l'oeuf vierge [*Data et considerationes novae theoreticae de inertia quoad ovum virginem*]. 9 figs., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 881-912. Bruxelles (1936). **b - 310**

Action de l'acide butyrique sur les oeufs d'*Asterias glacialis*; effet de l'eau de mer hypertonique sur les oocytes entrés en maturation; le procédé de parthénogénèse consistant à placer des oocytes d'Astérie dans un mélange convenable de Chlorures isotoniques à l'eau de mer et de même pH. L'action des solutions isotoniques a été expérimentée aussi sur les oeufs de *Phascolion Strombi*. On peut résumer: les agents effectifs de l'activation de la parthénogénèse pour tous les oeufs marins sont les constituants de l'eau de mer; l'intervention du $CO_2$ comme agent de l'inertie de l'oeuf n'est pas satisfaisant.

**Darby H. H.** - Intersexuality in the *Crustacea* [*Intersexualitas in Crustaceis*]. 1 pl. o. t., Pap. Tortugas Lab., XXIX, 147-149. Washington (1936). **b - 311**

A. tries to prove the existence of intersexuality in the Crustacean, the theory of which was put forward by Morgan in 1920. Concentrating his investigations on the claws instead of the abdomen as Morgan did, A. here reports some cases studied in *Uca pugilator*: female to male intersexes, male to female intersexes and symmetry in males.

**Davidson F. A.** - The Development of the Secondary sexual Characters in the Pink Salmon (*Oncorhynchus gorbuscha*) [*Accretio characterum sexualium secundariorum in specie « Oncorhynchus gorbuscha »*]. Journ. Morphol., LVII, 1, 169-184. Philadelphia (1935). **b - 312**

Body form of sexually immature male and female pink salmons. Time of development of the secondary sexual characters; morphological changes.

**Devold F.** - The Susceptibility of Plaice Eggs to Shock [*De ovorum susceptibilitate speciei « Pleuronectes platessa » contra collisionem*]. 2 figs., 1 table. Kgl. Norsk. Vidensk. Selsk. Forh., VIII, 22, 71-74. Trondheim (1936). **b - 313**

A. has followed the same methods as Rollefsen used for cod eggs with small modifications (See Rapp. et Proc.-Verb., LXV, 1930; Journ. Cons., VII, 3, 1932; Årsber. v. Norg. Fisk. 2, 1929 and 2, 1931). The results are shown in a table and a graph and compared to those of the codeggs.

**Duboscq O. & Tuzet O.** - Sur quelques points de l'ovogenèse et du développement des Eponges calcaires [*De ovogenesi et accretione spongiarum calcarearum*]. 1 fig., C. R. XII Congr. Int. Zool., 547-553. Lisbonne (1936). **b - 314**

L'A. a essayé de préciser l'origine des cellules germinales. Description de l'ovocyte, de la formation des globules polaires et de la segmentation. La gastrulation de l'Eponge présente un mélange de caractères de Protistes et de Métazoaires.

**Dworak I.** - Dojrzewanie komórek płciowych męskich oraz składniki cytoplazmatyczne w spermatogenezie u *Asellus aquaticus*. Przyczynek do gametogenezy u Crustacea [*De spermatozoidibus quoad maturationem deque componentibus cytoplasmicis in spermatogenesi speciei « Asellus aquaticus »*]. (En polon., rés. franç.). 2 pl., Folia Morphol., V, 4, 209-249. Warszawa (1934 & 1935). **b - 315**

Etude expérimentale sur la spermatogenèse de *Asellus aquaticus*. Avec l'exception des heterochromosomes, les 17 chromosomes peuvent être groupés deux à deux selon leur grandeur. Après la première division de maturation les spermatocytes secondaires, contenant 8 ou 9 chromosomes, poussent en formant ainsi les spermatides avec de chromosomes corréspondants. Le chondriome et le vacuome (nomenclature de Parat) apparaissent arrangés d'un certain caractère.

**Elster H. J.** - Ueber die Rolle der Eisekrete bei der Befruchtung der Echinoideen [*De secretionis momento ovorum in Echinodermatorum fecundatione*]. 1 Tab., Zool. Anz., Suppl. 9, 168-172. Leipzig (1936). **b - 316**

Die hier beschriebenen Versuche geben vorhanden, dass die Steigerung der Befruchtungsfähigkeit der Spermatozoen unter dem Einfluss des arteigenen Eisekretes auf einer Erhöhung der Agglutinationsfähigkeit beruht, wodurch ein innigerer Kontakt zwischen Ei und Samenzelle ermöglicht wird. Die Frage, ob die Spezifität der Befruchtung durch die Eisekrete bedingt ist, ist aber noch nicht endgültig aufgeklärt.

**Facciolà L.** - I due sessi nelle specie nostrane dei Murenoidi e le loro glandole generative [*De duobus sexibus in speciebus nostris Murenoidarum deque earum glandulis generationis*]. 2 tav., Atti Soc. It. Sc. Natur., Milano, LXXIV, 4, 394-418. Milano (1935). **b - 317**

Si descrivono i maschi e le femmine dei Murenoidi che vivono nelle nostre acque, e cioè: *Anguilla vulgaris* Flem., *Conger vulgaris* Lin., *C. simulatus* Facc., *Myrus vulgaris* Lin., *Congromuraena mystax* Delar., *C. balearica* Delar., *Muraena Helena* Lin., *M. unicolor* Delar., *Ophichthys serpens* Lin., *A. imberbis* Delar., *O. hispanus* Bellotti, *O. coecus* Bl.

**Fontaine M.** - Sur la maturation complète des organes génitaux de l'anguille mâle et l'émission spontanée de ses produits sexuels [*De completa maturatione organorum genitalium masculi anguillae deque emissione spontanea eius productionum sexualium*]. 1 fig., C. R. Acad. Sc., CCII, 14, 1312-1314. Paris (1936). **b - 318**

Dans le but de compléter les résultats antérieurs (v. : C. R. Soc. Biol., CXVI, p. 1284, 1934) sur l'influence des injections d'urine de femme enceinte sur la maturation des organes génitaux de l'anguille mâle, l'A. communique un nouveau résultat de ses recherches qui ont abouti non seulement à une maturation plus ou moins complète des testicules mais aussi à l'émission spontanée des produits sexuels. Ce résultat tendrait à confirmer l'hypothèse de la mort de l'anguille mâle immédiatement après la reproduction.

**Gallien L. & Larambergue (de) M.** - Cycle et dimorphisme sexuel de *Lacuna pallidula* Da Costa (*Littorinidae*) [*De cyclo et dimorphismo sexuali speciei « Lacuna pallidula »*]. C. R. Acad. Sc., CCIII, 6, 409-412. Paris (1936). **b - 319**

*Lacuna pallidula* est une espèce unisexuée et son dimorphisme accusé ne provient pas d'une transformation des jeunes mâles en femelles, mais d'une croissance différentielle des sexes. Ce dimorphisme ne paraît pas jouer un rôle important dans la reconnaissance des sexes. L'espèce, étant annuelle, ne présente qu'un seul cycle. (Après l'A.).

**Grave B. H. & Smith J.** - Sex Inversion in *Teredo navalis* and its Relations to Sex Ratios [*Sexualis permutatio in specie « Teredo navalis » correlationesque cum proportione sexuali*]. 6 figs., Biol. Bull., LXX, 2, 332-343. Lancaster, Pa. (1936). **b - 320**

Sex inversion continues to occur through the life of an individual, and in any shipworm population of adult animals there is no such significant difference in numbers of male and female. Histological investigations.

**Hörstadius S.** - Studien über heterosperme Seeigelmerogone nebst Bemerkungen über einige Keimblattchimären [*De merogonis heterospermaticis in Echino cum observationibus de quibusdam chimaeris germinis*]. 28 Abb., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 801-880. Bruxelles (1936). **b - 321**

Vererbung durch den Kern und durch das Plasma. Merogonieversuche an Echinodermen, an Amphibien und botanische Merogone. Vorversuche mit den folgenden Artkombinationen: *Sphaerechinus granularis - Paracentrotus lividus* oder *Psammechinus microtuberculatus; Ps. miliaris - Echinus esculentus; Ps. miliaris - Paracentrotus lividus*, aus welchen die systematische Stellung des *Paracentrotus lividus* und *Psammechinus microtuberculatus* hervorgeht. Die normale Entwicklung der vorhergehenden Spezies und der Hybriden. Homosperme und heterosperme Merogone. Studien über einige Keimblattchimären. Erörterung über den Wert der Merogonieversuche. Es wird darauf hingewiesen, dass die beiden *Paracentrotus* und *Psammechinus microtuberculatus* deren Plasma und Kern in den heterospermen Merogonen so gut zusammenarbeiten können, in ihren Chromosomengarnituren weitgehend übereinstimmen.

**Järvi T. H.** - Tvåkönade fiskar [*Pisces hermaphroditi*]. (In Sved.). 3 fig., Fiskeritidskr. f. Finl., XLIII, 8-9, 131-133. Helsinki (1936). **b - 322**

Alcuni esempi di ermafroditismo riscontrati in *Clupea sprattus* e in 2 altre specie di pesci di acqua dolce, provenienti dalle acque finlandesi.

**Kossiackina E. G.** - Concerning the Spawning of *Mugil auratus* [*De reproductione speciei « Mugil auratus »*]. (In Russ., Engl. Rés.). 1 fig., Works Arnoldi Biol. Stat., II, 1, 157-159. Novorossiysk (1936). **b - 323**

It is shown that *Mugil auratus* does not spawn in the estuaries but in the open parts of the Black Sea.

**Leloup E.** - Contributions à l'étude de la faune Belge. VI. Les transformations des gonades et les caractères sexuels externes chez *Pandalus montagui* Leach [*Contributio in studendam faunam Belgicam. De transformatione gonadum deque characteribus sexualibus externis in specie « Pandalus montagui »*]. 16 fig., Bull. Mus. R. Hist. Natur. Belgique, XII, 19, 1-27. Bruxelles (1936). **b - 324**

Le matériel a été recueilli lors de l'exploration de la mer du Nord. Description des pléopodes des formes jeunes, femelles, mâles et aberrantes. Caractères extérieurs et contenu cellulaire des gonades. Les mâles de *P. montagui* vivent trois années, les femelles grandissent plus rapidement et mènent une existence plus longue. Cette espèce comprend des femelles pures et des mâles gynandromorphes exclusivement androgènes.

**Linke O.** - Der Laich von *Littorina* (*Melaraphe*) *neritoides* L. [*Ova speciei « Littorina neritoides »*]. 1 Abb., Zool. Anz., CXII, 57-62. Leipzig (1935). **b - 325**

Ein sehr grosser Unterschied ist unter den vier an den europäischen Küsten befindlichen *Littorina* - Arten in Bezug auf den Laich und die Fortpflangungsbiologie vorhanden. Beschreibung und Erörterung.

**Loosanoff V.** - Sexual Phases in the Quohog [*Phases sexuales speciei « Venus mercenaria »*]. Science, LXXXIII, 2151, 287-288. New York (1936). **b - 326**

Protandry established in the primary gonads; many degrees of intersexuality; potentiality of changing the sex even in adult condition. Comparison with other Pelecypod Mollusca.

**Mazzeschi A. & Vannini E.** - Nuove ricerche sul precoce differenziamento sessuale delle anguille [*Investigationes novae in praecocem differentiationem sexualem anguillarum*]. Boll. Zool., VII, 2/3, 57-66. Napoli (1936). **b - 327**

Gli AA. affermano che nelle anguille il differenziamento sessuale possa essere dimostrato, in stadi giovanili, in base al diverso numero di protogoni. Tale differenziamento appare iniziarsi forse già dopo gli 11 cm. di lunghezza, certamente dopo i cm. 14.

**Meer Mohr (van der) J. C.** - Biologische Waarnemingen bij Pantai Tjermin. I. Eierkapsels van zeeslakken. 2. Wat de poekat ophaalt [*Observationes biologicae in* Pantai Tjermin. *I. Ovorum capsulae limacium marinarum. II. Quod rete trahit ex mare*]. Trop. Natuur, XXII, 7, 125-131 (1933); XXIV, 2, 23-30. Batavia (1935). **b - 328**

1. Descrizione ed illustrazione delle capsule delle uova di *Buccinum undatum*, *Melongena pugilina*, *Cuma javanica*, *Murex occa* (?), *Labiosa pulchella* and *Natica*. 2. Discussione sui *Crustacea*, *Pisces*, *Echinodermata*, e *Vermes* presi nelle reti da pesca.

**Meyer P. F.** - Ein Beitrag zur Frage der Laichperiodizität bei der Nordseekrabbe (Granat) *Crangon vulgaris* Fabr. [*Quaestio de periodicitate ovorum depositionis in specie « Crangon vulgaris »*]. 3 Abb., Zool. Anz., CIX, 23-32. Leipzig (1935). **b - 329**

Aus den vorliegenden Untersuchungen lässt sich entnehmen, dass der geschlechtsreife weibliche Granat dreimal im Jahr zur Eiablage schreitet und zwar in der sommerlichen Periode zweimal und im Winter einmal. Die sommerliche Periode wird von der winterlichen scharf getrennt durch eine Zwischenperiode, in der ausgesprochene « Laichmüdigkeit » herrscht. Uebersicht über die Laichperioden. (Vf.).

**Nakamura H.** - Ueber Intersexualität bei *Katsuwonus pelamis* (Linn.) [*De intersexualitate speciei « Katsuwonus pelamis*]. (In Jap.). 1 Fig., Trans. Nat. Hist. Soc. Formosa, XXV, 141, 197-198. Taihoku (1935). **b - 330**

Beschreibung eines Exemplars mit ausgesprochener Intersexualität bei *K. pelamis* L.

**Orton J. H.** - Observations and Experiments on Sex-change in the European Oyster *Ostrea edulis* L. Part V [*Observationes et experientiae circa sexus mutationem speciei « Ostreae edulis » europaeae*]. 4 figs., 11 tabl., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 997-1056. Bruxelles (1936). **b - 331**

During the year 1927 the A. studied the spawning of the European Oyster in two widely separated localities in England in order to make a comparison of the correlation between sea temperature and spawning.

This study demonstrates the dependence of the *Ostrea edulis* upon the environment, with respect to time and period of spawning, sex-proportion of the population and to some extent the rate of change of sex.

**Pape A.** - Ein Plattfischbastard in der Ostsee und seine fischereiwirtschaftliche Bedeutung [*Spuria species ex Pleuronectidis in Mari Baltico eiusque momentum quoad piscationis oeconomiam*]. Dtsch. Fischwirt., III, 10, 148. Berlin (1936). **b - 332**

Kurzer Bericht über Vorkommen und Entwicklung der Bastardierung zwischen Scholle und Flunder, welche in der Ostsee seit Jahren beobachtet worden ist. Das Ergebnis dieser Bastardierung nimmt, in bezug auf seinen Bau und seine Beschuppung, eine Zwischenstellung zwischen den beiden Fischarten ein. Vf. betont, dass infolge Unfruchtbarkeit dieses Tieres mehrere Prozente der wichtigsten Marktfische der Ostsee für die Fortpflanzung vollkommen fortfallen.

**Pasteels J. J.** - Recherches sur le déterminisme de l'entrée en maturation de l'œuf chez divers Invertébrés marins [*Investigationes de determinismo quoad ovi initium maturationis in variis invertebratis marinis*]. 7 fig., Arch. Biol., XLVI, 229-262. Paris (1935). **b - 333**

Recherches sur les effets des variations de la composition saline du milieu sur l'entrée en maturation des œufs vierges d'Invertébrés marins. L'action de $CaCl_2$ et de KCl.

**Perceva T. A.** - Key to Pelagic Eggs of Fishes of the Barents Sea [*Determinatio ovorum pelagicorum Piscium Maris* Barents]. 36 figs., Vses. Naoutchn.-Issled. Inst. Morsk. Rybn. Choz. Oceanogr. (V N I R O) 1-34, Moskva (1936). **b - 334**

List of Barents Sea fishes having pelagic (floating) eggs. Glossary of technical terms. Tables for identifying the pelagic eggs of fishes in the Barents Sea.

**Poulsen E. M.** - Yearly Variations in the Number of Larvae of Autumn Spawning Herrings in the Southern Part of the Transition Area [*Variationes annuae numeri larvarum in aringis qui autumno generant in parte meridionali areae transitionalis*]. 1 map., tabl., Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 22-24. Copenhague (1936). **b - 335**

The relation between the number of larvae caught during October and the quantity of herrings caught in the whole spawning season has been studied in the waters east of Sealand, Møen and Falster during the years 1927-1934. Affirmative results as to the relation. The yearly variations expressed in tables.

**Ranzi S.** - Ipofisi e gestazione nei Selaci [*De hypophysi et gestatione in Selachiis*]. Atti Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Mat. Natur., Ser. 6, XXIII, 5, 365-368. Roma (1936). **b - 336**

Man mano che la gestazione procede l'ipofisi dei Selaci subisce le seguenti modificazioni: generale iperemia, aumento del secreto contenuto nel lobo anteriore, variazione dell'eosinofilia delle cellule. (dall'A.).

**Ranzi S.** - Biologia sessuale dei Selaci [*De biologia sexuali in Selachiis*]. Atti Soc. Ital. Progr. Sc., Riun., 24, IV, 1, 89. Roma (1936). **b - 337**

L'A. espone quanto è noto sulla biologia sessuale dei Selaci: epoca degli amori; epoca di deposizione delle uova e della gestazione; durata dell'incubazione e della gestazione; modalità del parto; habitat delle femmine gravide.

**Ranzi S.** - Zur Kenntnis der Fortpflanzung bei den Selachiern [*De cognoscenda reproductione Selachiorum*]. 1 Tab., 1 graph. Fig., Naturwiss., XXIV, 41, 642-646. Berlin (1936). **b - 338**

Nach einigen einleitenden Worten über die grossen Verschiedenheiten in der Fortpflanzung der Selachier versucht Vf. die folgenden Fragen zu beantworten: Finden sich Unterschiede im Wachstum der Embryonen zwischen ovi-, ovovivi- und viviparen Formen? Nehmen die Embryonen ovoviviparer Formen organische Substanzen aus dem Mutterkörper auf? Und wenn das der Fall ist: Auf welchem Wege werden diese absorbiert? Gibt es Beziehungen zwischen der Histophysiologie des Uterus, der Zusammensetzung des Uterussaftes und dem Wachstum der Embryonen? Was für Änderungen ruft die Schwangerschaft im mütterlichen Organismus hervor? (Nach Vf.).

**Ranzi S. & Zezza P.** - Fegato, maturità sessuale e gestazione in *Trygon violacea* [*Jecur, maturitas sexualis et reproductio speciei « Trygon violacea »*]. 9 fig., Pubbl. Staz. Zool., XV, 3, 355-367. Napoli (1936). **b - 339**

I cambiamenti in dimensione del fegato di *Trygon violacea* in rapporto alla maturità sessuale sono dovuti alle variazioni quantitative degli inclusi lipidici delle cellule epatiche e cioè un deposito, quando si avvicina l'epoca degli amori ed una diminuzione nell'epoca degli amori. Durante i processi di accumulo e successiva utilizzazione di lipidi, lo squalene subisce la stessa sorte (André e Canal); non si hanno dati circa il comportamento dei protidi. Poichè l'impicciolimento del fegato è dovuto a riduzione del volume delle cellule epatiche, in base al numero di cellule contenute in egual volume di fegato, si può calcolare la riduzione di quest'organo durante la gravidanza (dall'A.).

**Rass T. S.** - Quelques régularités dans la structure des œufs et des larves de poisson dans les eaux septentrionales [*Regularitates nonnullae in ovorum atque larvarum Piscium structura in maribus septentrionalibus viventium*]. (En russe; rés. allem.). 12 litogr., Bull. Acad. Sc. URSS, II, 8/9, 597-600. Léningrad (1935). **b - 340**

**Reverberi G.** - Segmentazione « totale » nei frammenti dell'uovo fecondato delle Ascidie [*Segmentatio totalis fragmentorum ovi fecundati in Ascidiis*]. Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Mat. Natur., 6, Ser. XXIV, 9, 299-301. Roma (1936). **b - 341**

L'uovo di *Ciona intestinalis* spezzato con il micromanipolatore in diversi momenti del suo sviluppo e mutilato, si sviluppa in modo del tutto normale: ogni frammento ripete in miniatura l'aspetto di un uovo intero. Tuttavia esisterebbe una struttura, nella porzione vegetativa dell'uovo, che determinerebbe la simmetria bilaterale e la formazione dei micromeri (dall'A).

**Roy J.** - Expériences de fécondation artificielle réalisées chez l'Harpacticoide *Bryocamptus pygmaeus* Sars [*Experientiae fecundationis artificialis in specie « Bryocamptus pygmaeus »*]. Bull. Soc. Zool. France, LX, 290-291. Paris (1935). **b - 342**

Description de la technique adoptée, qui a permis le 24 pour 100 de réussite.

**Rubaschev S. J.** - Abweichungen von den Elternformen in der embryonalen Entwicklung der Bastarde von *Coregonus baeri* Kessl x *Salmo fario lac.* L. [*Deviatio a parentum formis in accretione embryonali speciei spuriae « Coregonus baeri » × « Salmo fario lac. »*]. 20 Abb., Acta Zool., XVI, 3, 387-408. Stockholm (1935). **b - 343**

Untersuchungen der verschiedenen Erscheinungen, die in den ersten embryonalen Stadien Missbildungen und Tod verursachen.

**Russo A.** - Notizie su la vita sessuale e sulla pesca dei Clupeidi nel golfo di Catania [*De vita sexuali atque de piscatione Clupeidarum in Sinu Catinensi*]. Atti Soc. It. Progr. Sc. Riun. 24, IV, 1, 46-54. Roma (1936). **b - 344**

Vengono riportati i dati raccolti a Catania e relativi alla maturità sessuale ed alla deposizione delle uova dell'Acciuga e della Sardina e confrontati con quelli di altre zone di diversa latitudine; viene riferito sui rapporti sessuali dell'Acciuga nei mesi della deposizione e sulla prolificità e distruzione dei Clupeidi.

**Russo A.** - Deposizione dei Clupeidi nel Golfo di Catania [*Clupeida. Quaestio de depositione in Sinu Catinensi*]. Boll. Acc. Gioenia Sc. Natur., 2, 5-9. Catania (1936). **b - 345**

L'A. stabilisce i periodi di maturità e di deposizione delle uova in due delle specie più comuni nel Golfo di Catania; sardina ed acciuga.

**Sanzo L.** - Le uova dei Teleostei marini. (Considerazioni generali) [*De ovis Teleosteorum marinorum*]. Atti Soc. It. Progr. Sc., Riun. 24, IV, 1, 55-69. Roma (1936). **b - 346**

Viene esaminata la forma, grandezza e trasparenza delle uova dei Telostei marini, le caratteristiche della capsula, dello spazio perivitellino, del vitello, il significato biologico delle goccie oleose, i caratteri dello sviluppo, il peso specifico e sue variazioni.

**Schnakenbeck W.** - Natürliche Bastardierung von Scholle (*Pleuronectes platessa*) und Flunder (*Pleuronectes flesus*) [*Actio spuria naturalis specierum « Pleuronectes platessa » et « Pleuronectes flesus »*]. Naturwiss., XXIV, 12, 188-189. Berlin (1936). **b - 347**

Natürliche Voraussetzungen, Vorteile und Nachteile der Bastardierung; Untersuchungen von Kändler, Pape, Gottsche, Moebius und Heincke.

**Shapiro H.** - A Case of functional Hermaphroditism in the Sea-Urchin, *Arbacia punctulata*, and an Estimate of the Sex- ratio [*De hermaphroditismo functionali in specie « Arbacia punctulata » deque aestimatione proportionis sexualis*]. Amer. Natur., LXIX, 722, 286-288. New York (1935). **b - 348**

*Arbacia* is normally dioecious, and hermaphroditism is rare. An animal with 4 testes and 1 ovary yielded 100 % self fertile eggs with somewhat abnormally cleaving embryos which developed up to the gastrula stage. From counts made of 2358 animals collected in the Woods Hole region, July-September 1934, the sex- ratio was determined to be 1.00 ♂ : 1.03 ♀. (A.).

**Templeman W.** - Further Contributions to the Mating of the American Lobster [*Contributiones ulteriores in studendam copulationem. Homarus americanus*]. 1 table. Journ. Biol. Bd. Canada, II, 2, 223-226. Toronto (1936). **b - 349**

The mating posture. Relation of shell condition in female to mating. Retention of sperms by egg-bearing females.

**Thompson W. F. & Associates** - The Spawning of the Silver Smelt, *Hypomesus pretiosus* [*De fecundatione speciei « Hypomesus pretiosus »*]. Ecology, XVII, 1, 158-168. Brooklyn (1936). **b - 350**

The spawning habits and migration of the smelt are adapted to the areas formed by erosion and depositions af the sand exposed to the action of tides. The eggs are laid on the parts cleaned by the wash of the waves and remain there anchored until hatching occurs.

**Tyler A.** - On the Energetics of Differentiation. III. Comparison of the Temperature Coefficients for Cleavage and later Stages in the Deve-

lopment of the Eggs of some Marine Animals. IV. Comparison of the Rates of Oxygen Consumation and of Development at Different Temperatures of Eggs of some marine Animals [*De energetica differentiationis. III. Comparatio inter varios coefficientes temperaturae pro segmentatione et gradus accretionis aliquorum animalium marinorum. IV. Comparatio inter velocitates oxygeni consumptionis et ovorum accretionem aliquorum animalium marinorum, differentibus temperaturis*]. 5 figs., 21 tabl., Biol. Bull., LXXI, 1, 59-81; 82-100. Lancaster, Pa. (1936). **b - 351**

Experiments have been undertaken with *Ciona intestinalis, Dendraster excentricus, Urechis caupo, Strongylocentrotus purpuratus* and *Lytechinus anamesus.* Theoretical part. Experimental part. It is shown that the values of the coefficients for all these forms, with the exception of *Strongylocentrotus* are very closely alike although the rates of development are quite different. As to the total oxygen consumed during the same developmental period at different temperatures, this is the same within the limits of error of the measurement.

**Waterman A. J.** - The Membranes and Germinal Vesicle of the Egg of *Sabellaria vulgaris* [*Membranae et vesica germinalis ovi speciei « Sabellaria vulgaris »*]. Biol. Bull., LXXI, 1, 46-58. Lancaster, Pa (1936). **b - 352**

Shape and structure of the egg. Shedding and other changes. The vitaline and hyaline plasma membranes and their alterations. The germinal vesicle and its behaviour in sea water, hypo- and hypertonic solutions.

**Wintrebert P.** - Le mécanisme de la formation de coques vides et l'influence de l'œuf sur la constitution de ses enveloppes chez un sélacien *Scylliorhinus canicula* L. Gill. [*De formatione ovorum vacuorum deque ovi influentia in constitutionem eius involucrorum in specie « Scylliorhinus canicula »*]. C. R. Soc. Biol., CXVII, 664. Paris (1934). **b - 353**

Constitution des enveloppes de l'œuf pendant son passage dans l'oviducte.

## PROGRESSUS EMBRYONALIS ET ACCRETIO CORPORIS

### Embryologia – Accretio larvalis – Metamorphosis.

**Bertin L.** - Contribution à l'étude des larves des poissons Apodes (Les types de Strömman à l'Institut Zoologique de l'Université d'Upsal) [*Pisces Apodes. Contributio in larvas studendas*]. 13 fig., Bull. Inst. Océanogr., 694, 1-16. Monaco (1936). **b - 354**

L'A. a eu l'occasion d'examiner l'importante collection des larves de poissons Apodes à l'Institut Zoologique de l'Université d'Upsal qui ont été décrites en 1896 par Strömman. Il complète les diagnoses déjà faites et met en évidence les affinités réelles des larves et les caractères anatomiques. Le présent travail fait suite aux études antérieurs de l'A. sur les types leptocéphaliens de Kaup et de Risso.

**Bertin L.** - Nouvelle contribution à l'étude des larves de Poissons Apodes [*Pisces Apodes. Contributiones novae in larvas studendas*]. 6 fig., Bull. Inst. Océanogr., 706, 1-12. Monaco (1936). **b - 355**

Précisation des diagnoses originales des types leptocéphaliens dans le but d'identifier les leptocéphales et de rayer les *nomina nuda* qui encombrent la nomenclature zoologique. Examen des espèces de Kaup et de Regan, larves de *Congridae*, d'*Ophichthyidae* et d'*Echelidae*.

**Boliek M. I.** - Syncytial Structures in Sponge Larvae and Lymph Plasmodia of Sea Urchins [*Structurae syncytiales in larvis Spongiarum atque plasmodia in lympha Echinorum*]. 5 pl., Journ. Elisha Mitchell Scient. Soc., 252-288. Chapel Hill, N. C. (1935). **b - 356**

The larvae of *Lissodendoryx* have syncytial structures sometimes interrupted by spaces filled with a liquid. A. compares these structures to the plasmodes formed in the peri-visceral liquid which correspond to the syncytium in the sea- urchins (*Lytechinus*).

**Bolin R. L.** - Embryonic and Early Larval Stages of the California Anchovy [*Studia embryonalia et larvalia priora speciei « Engraulis mordax »*]. 4 pls. o. t., Calif. Fish. & Game, XXII, 4, 314-321. Sacramento (1936). **b - 357**

The eggs of *Engraulix mordax* are variable in size and shape and differ from the orthodox spherical fish eggs in being ellipsoidal. Similarity with other species of Anchovies.

**Bonde (von) C.** - The Reproduction Embryology and Metamorphosis of the Cape Crawfish (*Jasus lalandii*) (Milne Edwards) Ortmann [*Reproductio, embryologia, metamorphosis speciei « Jasus lalandii »*]. 12 pls. o. t., Dpt. Commerce & Ind., Fish & Mar. Biol. Surv. Div. Un. S. Afr., Invest. Rep. 6, 1-25. Pretoria (1936). **b - 358**

This is the first detailed study of the reproductive and developmental stages of *Jasus lalandii* containing also some corrections of descriptions by Gilchrist of the postovum stages.

**Cadenat J.** - Sur les stades jeunes de quelques poissons de chalut de la côte de Mauritanie [*Stadia nonnulla aliquorum Piscium captorum per rete chalut ad litora Mauretanica*]. Rev. Trav. Off. Pêches Marit., IX, 3, 35, 293-322. Paris (1936). **b - 359**

Pigmentation, vertèbres, proportions du corps, nageoires de *Zeus faber, Trigla corax, Pagellus erythrinus, Trachinus draco, Cynoglossus goreensis, Arnoglossus imperialis, Solea melanochir* et *Blennius,* capturés sur le fond de la côte de Mauritanie. Etude de l'évolution de ces espèces dans la première année de leur croissance et des phénomènes qui se produisent au passage de la vie pélagique de la larve à la vie benthique du jeune sur les fonds, pour la résolution du problème de la protection des jeunes poissons.

**Cieglewicz W.** - Wzrost Storni (*Pleuronectes flesus*) poławianej w Zatoce Gdańskiej i w zachodnim Bałtyku [*Accretio speciei «Pleuronectes flesus » in Sinu Dantisci et Baltico Occidentali*]. (In Pol.; Engl. Summ.). 2 figs., 6 tables. Arch. Hydrobiol. & Ichthyol. (Trav. Stat. Marit. Hel), IX, 1/2, 108-121. Suwalki (1935). **b - 360**

Results of examinations of flounders caught during 1930–1933 in the area under observation by means of various fishing gears, establishing the rate of growth, monthly and yearly, the average size of flounders and the difference in the measurements of fish caught in inshore and in deep waters.

**Cipria G.** - Embrione di *Scymnorhinus licha* Bonnaterre [*Embryo speciei « Scymnorhinus licha »*]. 1 tav. f. t., Mem. R. Comit. Talassogr. It., CCXXVII, 3-5. Venezia (1936). **b - 361**

Si descrive con relative figure un embrione di *Scymnorhinus licha* di mm. 83 di lunghezza (A.).

**Cipria G.** - Uova, stadi embrionali e post-embrionali nei Blennidi. I. *Blennius pavo* Risso. II. *Blennius inaequalis* C. V. [*Ova, stadia embryonalia et post embryonalia in Blennidis*]. 1 tav. f. t., Mem. R. Comit. Talassogr. It., CCXXXI, 3-8. Venezia (1936). **b - 362**

Si fanno conoscere le uova, lo sviluppo embrionale post-embrionale di *B. pavo* e di *B. inaequalis* C. V. (A.).

**Cohen A. & Berrill N. J.** - The early Development of Ascidian Eggs [*Priora stadia accretionis ovorum Ascidiae*]. 4 figs., Biol. Bull., LXX, 1, 78-88. Lancaster, Pa. (1936). **b - 363**

The observations have been undertaken on living nude eggs of *Ascidiella aspersa* and *Phallusia mammillata*. Behaviour of stain from fertilization to first polar body Determination of the site of polar body formation. Changes in eggs shape from fertilization to first cleavage.History of stain from first polar body to tadpole.

**Dakin W. J. & Colefax A. N.** - The Eggs and early Larval Stages of the Australian Pilchard, *Sardinia neopilchardus* (Steind.) [*Ova et stadia primaria larvalia sardinae australiensis*]. 1 pls., 4 figs., Rec. Austral. Mus., XIX, 2, 136-140. Sidney (1934). **b - 364**

**De Gaetani D.** - Uova, sviluppo embrionale e stadi post-embrionali negli Sparidi. IV. *Pagrus vulgaris* C. V. [*Ova, accretio embryonalis et stadia post embryonalia in Sparidis*]. 1 tav. f. t., Mem. R. Comit. Talassogr. It., CCXXVI, 3-13. Venezia (1936). **b - 365**

Si fanno conoscere le uova e lo sviluppo embrionale del *Pagrus vulgaris* C. V. ed i più salienti caratteri di sviluppo di una serie di stadi post-embrionali che vanno da una lunghezza di mm. 2,70 a mm. 26. (A.).

**Deraniyagala P. E. P.** - The Embryo of the Dog Fish *Chiloscyllium indicum* [*De embryone in specie « Chiloscyllium indicum »*]. 2 figs., Ceylon Journ., Sec. B., Zool. and Geol. Spolia Zeylanica, XVIII, 2, 249-252. Ceylon (1934). **b - 366**

**Fry D. H. Jr.** - A Description of the Eggs and Larvae of the Pacific Mackerel (*Pneumatophorus diego*) [*Descriptio ovorum et larvarum speciei « Pneumatophorus diego »*]. 1 pl. o. t., Calif. Fish & Game, XXII, 1, 28-29. Sacramento (1936). **b - 367**

Diameter of the fertilized eggs in the spawning season (June and July). Oil globule, pigments and segmentation.

**Fujita T.** - Note on the Japanese Oyster Larva [*Nota de larvis japonicis Ostreae*]. 5 figs., Proc. 5th. Pacif. Scient. Congr., 1933, 5, 4111-4117. Univ. Toronto Press. Toronto (1934). **b - 368**

Analytical study on the origin and development of the various important organs.

**Gibbons S. G.** - Early Developmental Stages of Copepoda. 1. *Rhincalanus nasutus* and *Eucalanus elongatus* [*Accretionis stadia primaria in Copepodis*]. Ann. & Mag. Nat. Hist., 10th ser., XVIII, 384-392. London (1936). **b - 369**

**Gudger E. W.** - Some undescribed Young of the pointed-tailed Ocean Sunfish, *Masturus lanceolatus* [*Nonnulli juvenes nondum descripti speciei oceanicae « Masturus lanceolatus »*]. 2 figs., Copeia, 1, 35-38. New York (1935). **b - 370**

The specimens described are from the Sargasso Sea and the Caribbean.

**Korschelt E. & Heider** - Vergleichende Entwicklungsgeschichte der Tiere, neu bearbeitet von E. Korschelt [*Historia comparata progressionis animalium a* E. Korschelt *recognita*]. 1312 fig. xx + 1314 pp., Fischer. Jena (1936). **b - 371**

Neuauflage des in 1890-1893 veröffentlichten Werkes. Es besteht aus zwei Bänden, die jetzt auch die Vertebrata umfassen.

**Luther W.** - Entwicklungsphysiologische Untersuchungen am Forellenkeim. Die Rolle des Organisationzentrums bei der Enststehung der Embryonalanlage [*Inquisitiones de physiologica progressione germinis Tructarum. Functio et vis constitutionis in origine evolutionis embryonalis*]. Biol. Zentralbl., LV, 114-137. Leipzig (1935). **b - 372**

Beschreibung einer Methode um die operierten Eier am Leben zu erhalten. Die Ergebnisse deuten auf eine Uebereinstimmung der physiologischen Beziehungen bei der Frühentwicklung der Amphibien und der Forelle hin. Die Embryonalanlage wird durch einen bestimmt lokalisierten Organisationsfaktor zur Entwicklung gebracht. Dieser Organisationsfaktor scheint bei sämtlichen Wirbeltiergruppen der gleiche zu sein.

**Matsuura Y.** - Statistical Studies of the Whale Foetus. I. Blue Whale and Fin Whale in the Antarctic [*Studia statistica de phoetis balaenae. I. « Balaenoptera musculus » et « B. physalus » in Antarctide*]. (In Jap.; Engl. Summ.). 4 diagrs., 1 table, Bull. Jap. Soc. Scient. Fish., V, 1, 25-33. Tokyo (1936). **b - 373**

Data chiefly based on « International Whaling Statistics », III (1932), V (1934, and VI (1935). on the rate of pregnancy, the percentage of twin-pregnancies, and the rate of foetal growth in blue and fin whale females.

**Miyazaki I.** - On the Development of some Marine Bivalves, with Special Reference to the shelled Larvae. II. [*De accretione aliquorum bivalvium marinorum. Agitur particulatim de larvis acochleatis. II*]. 1 fig., 5 pls. o. t., Journ. Imp. Fish. Instit., XXXI, 2, 35-41. Tokyo (1936). **b - 374**

Breeding season, formation of ovum, different stages of development studied in *Mactra sulcataria* Reeve, *M. veneriformis*, *Mysella japonica* (Yokoyama), *Paphia philippinarum* (Adams & Reeve) and *Erycina* sp.

**Munro Fox H.** - Rates of Cleavage of Sea Urchin Eggs in Different Latitudes [*Ovorum segmentationis velocitas in Echinis, diversis latitudinibus*]. 1 graph., Nature, CXXXVIII, 3498, 839. London (1936). **b - 375**

Preliminary note. A. has compared the rates of cleavages of the eggs of *Psammechinus miliaris* from Roscoff in Brittany, Plymouth and Millport in Scotland, and *P. microtuberculatus* at Tamaris in the south of France. The results shown graphically coincide with those for respiratory movements and hearts.

**Nakamura S.** - Larvae and Young of Fishes found in the Vicinity of Kominato, II-VI [*Larvae piscesque juvenes reperti apud regionem* Kominato]. 47 figs., Journ. Imp. Fish. Inst., XXXI, 2, 131-166. (Contr. Zool. Lab. Imp. Fish. Inst. No. 59; Tokyo & Contr. Kominato Mar. Biol. Lab. No. 2. Prov. Bôsyû). Tokyo (1936). **b - 376**

*Atherion elymus* Jordan & Starks, *Chasmichthys dolichognathus* (Hilgendorf), *Ch. gulosus* (Guichenot) *Pterogobius elapoides* Günther, *Alectis ciliaris* (Bloch). Different stages (also shown in pictures), habitat, comparison with other species, formation of the speckles. Discussion on the classification of *Alectis.*

**Nolte W.** - Annelidenlarven [*Annelidarum larvae*]. 104 Abb., Nord. Plankton, XXIII, Lief. 10, 59-169. Kiel (1936). **b - 377**

Allgemeine Einleitung. Festlegung der Bezeichnungen der verschiedenen Wimperringe, Bewimperung der Larventypen. Die Larven von *Amphinomidae* und *Aphroditidae.*

**Onoda K.** - Notes on the Development of Some Japanese Echinoids with Special Reference to the Structure of the Larval Body [*Notae de accretione aliquorum Echinodermatorum Japonicorum particulariter quoad pertinet ad structuram corporis larvalis*]. 9 figs., 5 pls. h. t., Jap. Journ. Zool., VI, 4, 637-654. Tokyo (1936). **b - 378**

Results of the working out of the embryology of the following species of Japanese sea-urchins: *Mespilia globulus* A. Ag., *Echinometra Mathaei* (Riv.) *Toxopneustes pileolus* (Lamk.), *Echinostrephus moralis* A. Ag., *Temnopleurus toreumaticus* (Klein), *Tripneustes gratilla* (Linn.), *Diadema setosum* Gray, *Strongylocentrotus pulcherrimus* (A. Ag.), *Pseudocentrotus depressus* (A. Ag.)

**Oppenheimer J. M.** - Processes of Localization in developing *Fundulus* [*Actiones effectionis constitutionis in embryonibus generis « Fundulus »*]. 32 fig., Journ. Exp. Zoöl., LXXIII, 3, 405-444. Philadelphia (1936). **b - 379**

Vitally stained blastomeres of the 16-cell stage have been followed through to gastrulating stages, and locally stained areas of the gastrula have been traced to their sites in the differentiated embryo. By combining the results of these two series of experiments a tentative scheme of cell lineage has been worked out. The *Fundulus* egg is characterized by non-determinate cleavage, but study of its cell lineage demonstrates the rôles played by the various blastomeres in normal embryo formation (A.).

**Pasquini P.** - Studio sullo sviluppo di uova centrifugate di ricci di mare (*Arbacia punctulata* Gray [*De accretione ovorum centrifugatorum echini « Arbacia punctulata »*]. 4 fig., Pubbl. Staz. Zool., XV, 3, 285-316. Napoli (1936). **b - 380**

La centrifugazione delle uova di *Arbacia* produce costanti anomalie dello sviluppo che dipendono dalle condizioni di atipia della segmentazione e da fattori intrinseci alla configurazione viscosa ooplasmatica nel periodo di sperimentazione.

**Pchelina Z. M.** - Some Preliminary Data concerning the Larvae and Post-Larvae of the Bay of Novorossiysk [*Data quaedam priora de larvis et post-larvis ad Bajam* Novorossiysk *pertinentibus*]. (In Russ., Engl. Rés.). 3 fig., Works Arnoldi Biol. Stat., II, 1, 27-35. Novorossiysk (1936). **b - 381**

Report on the occurrence of larvae of *Clupeidae, Gadidae, Atherinidae, Blenniidae, Gobiidae, Labridae, Gobiesocidae, Engraulidae, Callionymidae, Sparidae* and *Belonidae.* The greatest quantity and variety of larvae and post-larvae observed from May to September.

**Pitotti M.** - La gastrulazione dell'uovo di Lampreda (*Lampetra fluviatilis L.*). Spostamenti dei materiali durante la gastrulazione [*De gastrulatione ovi Lampetrae. Materiarum amotiones inter gastrulationem*]. 1 fig., Atti Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Mat. Natur., XXIII, 3, 209-211. Roma (1936). **b - 382**

Risultati di alcuni esperimenti eseguiti con le colorazioni vitali localizzate sull'uovo di Lampreda per identificare i movimenti che avvengono alla superficie del germe durante la gastrulazione. Tali movimenti sono uno dorsale limitato; uno ventrale esteso; due laterali estesi; uno latero-dorsale e uno latero-ventrale, che accompagnano i precedenti. (A).

**Pitotti M.** - Sull'assorbimento del tuorlo negli embrioni di Torpedo [*De absorptione vitelli in embryonibus Torpedinis*]. 5 fig., Pubbl. Staz. Zool. Napoli, XV, 2, 217-222. Napoli (1936). **b - 383**

Sviluppate proprietà enzimatiche dell'apparato digerente dell'embrione di *Torpedo ocellata* di mm. 46. Il succo intestinale attacca rapidamente i granuli di tuorlo, il succo gastrico attacca il liquido uterino ingerito, i granuli di tuorlo del sacco vitellino esterno invece sono, fin dai primi stadi, fagocitati dal sincizio perilecitico dove subiscono una vera e propria digestione.

**Raja M.** - Ricerche sull'accrescimento post-embrionale del *Loligo vulgaris* Lam. [*Investigationes in accretionem post-embryonalem speciei « Loligo vulgaris »*]. Arch. Zool. It., XXI, 447-474. Napoli (1935). **b - 384**

È stato esaminato, nel primo anno di vita, l'accrescimento del *Loligo vulgaris* del golfo di Napoli e le variazioni ponderali del mantello, dei gangli dell'occhio, dei cuori branchiali, delle branchie, del fegato, della borsa del nero, del becco e del guscio. Il rapporto fra il peso dei singoli organi e il peso del tutto sono stati studiati servendosi dell'equazione di Huxley: $y = bK$.

**Ranzi S.** - Ambiente e fisiologia dell'embrione [*De ambiente atque physiologia embryonis*]. 1 tav., Arch. Sc. Biol., XXII, 1, 80-94. Bologna (1936). **b - 385**

Trattazione sintetica dei problemi sui rapporti tra embrione e ambiente dal punto di vista fisiologico.

**Ranzi S.** - Ricerche sull'assunzione di sostanze minerali per parte dell'embrione di *Sepia officinalis* [*Investigationes in absumptionem substantiarum mineralium per embryonem speciei « Sepiae officinalis »*]. Atti Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Mat. Natur., XXII, 12, 605-608. Roma (1935). **b - 386**

L'embrione di *Sepia officialis* è capace di concentrare, prendendoli dal mare, parecchi elementi tra cui Cu, Fe, Mn, Li, Sr. Si può concludere che una porzione del Cu necessario per l'emocianina che viene sintetizzata nel corso dello sviluppo, viene presa dall'ambiente (dall'A.).

**Reverberi G.** - Analisi dei primi momenti dello sviluppo in uova ibride di Ascidie [*Analysis circa prima tempora inter quae fit accretio ovorum hybridorum Ascidiarum*]. 17 fig., Pubbl. Staz. Zool. Napoli, XV, 2, 175-193. Napoli (1936). **b - 387**

Studi dello sviluppo embrionale di uova di *Ciona intestinalis* incrociate con spermi di *Phallusia mamillata.*

**Richard A., Porter R. P. & Shumacher B. L.** - Analysis of early Development of Fish Embryos by means of the Mitotic Index. I. The Use of the Mitotic Index. II. The Mitotic Index in pre-neural Tube Stages of *Fundulus hetero-*

*clitus*. III. The Mitotic Index of young Embryos of *Coregonus clupeiformis* [*Explicatio primae progressionis in embryonibus Piscium, per mitoticum indicem. I Quomodo utitur mitotico indice. II Mitoticus index in stadiis tubi praeneuralis in specie «Fundulus heteroclitus». III Index mitoticus in embryonibus speciei «Coregonus clupeiformis»*]. Amer. Journ. Anat., LVI, 3, 355-363; 365-392; 395-408. Philadelphia (1935). b - 388

The purpose of this series of papers is to correlate mitotic index data of various cells and tissues of fish embryo with developmental processes and with differentiation. I. The relation of mitosis to growth and differentiation, the use of the mitotic rate as one method for the analysis of differentiation, the meaning of the mitotic index, its calculation, previous studies involving it and its value for recognizing localized centers of developmental activity. Critique of the validity of the method. (A.). II. Study of mitoses in *Fundulus* embryos from early blastodiscs (with index of 61.0) to stages (index of 1.70) showing the formation of the neural tube. III. The actual figures for the development of *Coregonus* are much lower than those for *Fundulus*. General conclusions regarding embryological processes.

**Ries E. & Gersch M.** - Die Zelldifferenzierung und Zellspezialisierung während der Embryonalentwicklung von *Aplysia limacina* L. Zugleich ein Beitrag zu Problemen der vitalen Färbung [*De differentiatione et specialisatione cellulari inter accretionem embryonalem speciei «Aplysia limacina» Contributio in cognoscenda problemata de coloratione vitali*]. 18 fig., 1 tab., Pubbl. Staz. Zool. Napoli, XV, 2, 223-273. Napoli (1936). b - 389

Die Vorgänge im Ei bis zum Beginn der Furchung: Das Ei vor der Richtungskörperbildung, die Richtungskörperbildung und die Plasmasonderung. Plasmasonderungsvorgänge während der ersten Furchungsteilungen. Differenzierungen und Spezialisierungen während der späteren Embryonalentwicklung. Ergebnisse und Schlussfolgerungen: Die Bedeutung des pH für die Vitalfärbung. Die Ergebnisse der Vitalfärbung für die Cytologie. Die Sonderungsprozesse in der Eizelle und ihre Bedeutung für die Determination der Furchungszellen.

**Russell F. S.** - On the First Stage of the Medusa *Eucheilota clausa* (Hincks) (= *E. hartlaubi* Russell) [*De priore stadio medusae «Eucheilota clausa»*]. 3 figs., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 131-133. Plymouth (1936). b - 390

A gives an account of his observations on the medusae liberated by *Lovénella clausa* and emends the name *Eucheilota hartlaubi* to *Eucheilota clausa* (Hincks).

**Sanzo L.** - Allevamento di una larva pelagica di *Cerianthus* fino all'acquisto di caratteri definitivi [*Cultura cuiusdam larvae pelagicae ad genus Cerianthus pertinentis, usque ad acquisitionem characterum constitutorum*]. 3 fig., Atti Acc. Naz. Lincei Rend. Cl. Sc. Fis. Mat. e Natur., XXIV, 7/8, 227-231. Roma (1936). b - 391

Uova o larve di Teleostei costituiscono un ottimo alimento per le larve pelagiche di Ceriantari ed Actinari, che poterono per tale via essere allevate per oltre un anno, trasformandosi alcune in due diverse specie di *Cerianthus* con costruzione delle rispettive diverse gallerie, e le altre in Actinari (dall'A.).

**Sanzo L.** - Contributi alla conoscenza dello sviluppo embrionario e post-embrionario nei Mugilidi [*Contributiones in cognoscendam accretionem embryonalem et post-embryonalem in Mugilidis*]. 2 tav. f. t., Mem. R. Comit. Talassogr. It., CCXXX, 3-12. Venezia (1936). b - 392

Periodo di maturità sessuale e sviluppo embrionale fino all'ottavo giorno dalla schiusa delle uova di *Mugil cephalus*, fecondate artificialmente. Uova libere e fecondate di *M. chelo* furono seguite fino al ventiduesimo giorno dalla schiusa; interessanti dati sulla pigmentazione.

**Sparta A.** - Contributo alla conoscenza di uova, stadi embrionali e post-embrionali in *Macrorhamphosus scolopax L.* [*Contributio in cognoscenda ova, stadia embryonalia speciei «Macrorhamphosus scolopax»*]. 1 tav., Mem. R. Comit. Talassogr., CCXXV, 1-14. Venezia (1936). b - 393

Descrizione di alcune uova di *Macrorhamphosus scolopax L.*, galleggianti nel plancton dello stretto di Messina e delle larve che l'A. ha potuto coltivare fino al decimo giorno di vita, fino cioè agli stadii descritti da precedenti AA.

**Sparta A.** - Uova e larve di *Gobiidae*. III *Gobius ferrugineus* Kolomb [*Quaestio de ovis et larvis Gobiidarum*]. 1 tav. f. t., Mem. R. Comit. Talassogr. It., CCXXVIII, 3-6. Venezia (1936). b - 394

Si fanno conoscere le uova e le larve fino all'ottavo giorno dalla schiusa per *Gobius ferrugineus*, ottenute da fecondazione artificiale, con cenni sul dispositivo degli organi ciatiformi dell'adulto (A.).

**Tåning V. Å.** - Herring Larvae in Icelandic Waters, 1924-1934 [*De larvis ad aringum pertinentibus in maribus Islandicis. A. 1924-1934*]. 15 figs., 9 tables. Cons. Expl. Mer, Rapp. & Pr.-Verb., XCIX, Rapp. Atlant., 1933-1935, VI, 3-20. Copenhague (1936). b - 395

The aim of this work was first and foremost to determine how far our present knowledge extends with regard to spawning times and places of the herring communities which spawn in spring und summer at Iceland. Shortcomings in our knowledge are empasized.

**Tåning V. Å.** - On the Eggs and young Stages of the Halibut [*De ovis et stadiis juvenilibus speciei «Hippoglossus vulgaris»*]. (In Engl., Dan. Rés.). 8 figs., tabl., Medd. Komm. Danm. Fisk. o. Havunders., Ser. Fiskeri, X, 4, 1-23. København (1936). b - 396

Eggs of the Halibut were obtained pelagically for the first time between the Faroes and Iceland at a depth of about 200-700 m; the depth at the place was about 1100-2000 m., from which we may conclude that the Halibut migrate out at any rate to these depths in order to spawn. Dimensions and appearance of eggs. Pelagic postlarvae. Description of the smallest bottom-stages of the O-group for the first time and of various features in the metamorphosis and changes during the further growth. Principal period of spawning as well as hydrographical conditions in the spawning area. Occurrence of pelagic postlarvae of the Greenland Halibut in the Denmark Strait. (From A: s rés.).

**Templeman W.** - Fourth Stage Larvae of *Homarus americanus* intermediate in Form between normal third and fourth Stages [*Larva quarti stadii speciei «Homarus americanus» formae intermediae inter stadium tertium et quartum normale*]. 1 fig., 1 table, Journ. Biol. Bd Canada, II, 4, 349-354. Toronto (1936). b - 397

Thirteen out of 379 fourth stage lobster larvae reared at St. Andrews were definitely intermediate in form, in length of fourth stage period, and in habit, between the recognized third and fourth stages. They usually occur under unfavourable rearing conditions. The fifth stage produced by moulting of the intermediate fourth stage is intermediate in metamorphosis between normal fourth and fifth stages. (A.).

**Turner C. L.** - The Absorptive Processes in the Embryos of *Parabrotula dentiens*, a viviparous, Deep Sea Brotulid Fish [*De absorptione in embryonibus speciei « Parabrotula dentiens » Piscis vivipari in maris profunditatibus viventis ad Brotulidas pertinentis*]. Journ. Morphol., LIX, 2, 313-326. Philadelphia (1936). **b - 398**

The embryos of *Parabrotula dentiens* are equipped with external processes which are attached around the anus and to the ventral wall of the embryo for a short distance in front of the anus. The processes have a spongy connective tissue stroma and are covered with a syncytial layer. It is assumed that the processes augment the body surface of the embryos and have a nutrition-absorbing and an oxygen- absorbing function. (A.).

**Ubisch von L.** - Ueber die Organisation des Seeigelkeims [*Ratio embryonum in Echinis*]. 7 Abb., Arch. f. Entw. Mech. Organ., CXXXIV, 599-643. Berlin (1936). **b - 399**

**Weill R.** - Existence de larves polypoïdes dans le cycle de la Trachyméduse *Olindias phosphorica* Delle Chiaje [*De larvis polypoidibus in cyclo speciei « Olindias phosphorica »*]. 1 fig., C. R. Acad. Sc., CCIII, 20, 1018-1020. Paris (1936). **b - 400**

Des individus sexuellement mûrs furent récoltés sur les côtes des îles Bermudes et la fécondation fut réalisée expérimentalement. Développement et anatomie du polype. *Olindias* et *Protohydra caulleryi* sont les seules larves marines, non tentaculées, bourgeonnant des Trachyméduses.

**Wilson H. V.** - Some Critical Points in the Metamorphosis of the Halichondine Sponge Larva [*Reinspectio critica de metamorphosi spongiarum larvae*]. 4 pl., Journ. Morphol., LVIII, 285-345. Philadelphia (1935). **b - 401**

The object of this paper is to describe some steps of the process of ontogeny which have not been described before. A. is not of the opinion that the larval epithelial cells become the choancytes although the nuclei of the former do persist as the nuclei of the latter. Motile larva. Early metamorphosis (first stage). Later metamorphosis. Discussion on the structure of the larva, and the metamorphosis.

# BIOCHEMIA

## Chemia biologica et metabolismum vitale — Actio substantiarum chemicarum in organismis.

**Bachrach E.** - Biologie des diatomées (métabolisme de la silice. Pigmentation bleue) [*Diatomaearum biologia. (Silicis metabolismum. Pigmentatio caerulea)*]. Ass. Franç. Avancement Sc. 301-304. (59 Sess., 22-27, VII, 1935). Nantes (1935). **b - 402**

Résumé de 16 travaux de l'A. Etude sur *Nitzschia, Fragilaria, Navicula* et *Licmophora.*

**Bacq Z. M. & Florkin M.** - Action pharmacologique d'un extrait d'hypophyse et de ganglions nerveux d'une Ascidie (*Ciona intestinalis*) [*Actio pharmacologica extracti hypophysis et gangliorum nervorum cuiusdam Ascidiae*]. C. R. Soc. Biol., CXVIII, 814. Paris (1935). **b - 403**

Comparaison entre la glande blanchâtre située entre les deux siphons, chez les ascidiés, et l'hypophyse postérieure des vertébrés. Action de l'extrait de cette glande.

**Barker H. A.** - The oxidative Metabolism of the Colorless Alga, *Prototheca zopfii* Krüger I, II [*Metabolismum oxidativum Algae « Prototheca zopfii »*]. 16 tabl., 3 fig., Journ. Cell. & Comp. Physiol., VII, 1, 73-93; VIII, 2, 231-250. Philadelphia (1936). **b - 404**

On the basis of these investigations it is concluded that the process of assimilation of these compounds proceeds in two experimentally distinct stages, the primary process of assimilation and the subsequent decomposition in the processes of cell synthesis.

**Benazzi M.** - La regolazione della irritabilità nelle attinie per opera dei sali dell'acqua di mare. [*De regulatione quoad irritabilitatem Actiniarum salis marini causa*]. Boll. Zool., VII, 2/3, 73-81. Napoli (1936). **b - 405**

La irritabilità delle attinie è regolata dal Ca + + e dal Mg + + i quali agiscono in senso antagonistico; il Mg risulta un elemento assolutamente indispensabile per la vita di questi organismi marini. Lo stronzio ha sulla irritabilità delle attinie un'azione in tutto simile a quella del calcio [A.].

**Berthoumeyroux M.** - Recherches sur le pouvoir réducteur des liquides du milieu intérieur de quelques invertébrés marins [*Investigationes in potentiam reductionis liquidorum medii interni aliquorum invertebratorum marinorum*]. tabl., Bull. Stat. Biol. d'Arcachon, XXXII, 2, 111-153. Bordeaux (1935). **b - 406**

Aperçu historique. Liste des animaux marins: Echinodermes, Vers, Crustacés, Mollusques. Etude critique du dosage du glucose dans l'eau de mer, exposé des résultats obtenus par la méthode des recherrcheurs. Etude analytique, résultats actuels et antérieurs pour chaque espèce. Conclusions: signification au point de vue biologique. Bibl.

**Cantacuzène J. & Damboviceanu A.** - Caractères physico-chimiques du poison des acconties d'*Adamsia palliata* [*Characteres physico-chemici quoad virus accontiarum in specie « Adamsia palliata »*]. C. R. Soc. Biol., CXVII, 136-138, & 269. Paris (1934). **b - 407**

Action de la température, de la lumière, des substances chimiques et de la cataphorèse sur l'extrait des Acconties de cette actinie, qui est très toxique pour tous les Décapodes sauf pour *Eupagurus prideauxi* qui vit en symbiose avec elle.

**Castaldi L. & Fontana Zanco F.** - Ricerche sperimentali sulla influenza della corteccia surrenale sulla divisione cellulare [*Experimentales

*inquisitiones de corticis surrenalis effectu in mitosim cellularem*]. 2 tav., Scritti Biol. racc. da L. Castaldi, X, 127-159. Cagliari (1935). **b - 408**

Il Cortical e il Cortigen, usati in dosi opportune e con particolari cautele negli allevamenti di uova artificialmente fecondate di *Paracentrotus lividus*, hanno dimostrato un effetto eccitativo sulla velocità di segmentazione e di differenziazione ontogenetica di questo materiale. Esagerando nelle dosi di estratto o commettendo errori tecnici negli allevamenti, si sono ottenuti effetti inibitori sulla velocità di divisione e differenziazione, produzione di anomalie e mostruosità, fatti di degenerazione e morte.

**Ciaranfi E.** - Sulla esistenza di fermenti deidrogenanti gli acidi grassi nel fegato di *Serranus cabrilla* [*De fermentis quae acida crassa dehydrogenant in hepate speciei « Serranus cabrilla »*]. Pubbl. Staz. Zool., XV, 3, 317-321. Napoli (1936). **b - 409**

Azioni ossidative di sezioni isolate di fegato di *Serranus cabrilla*. Particolarità di struttura del fegato di *Serranus*, cui corrisponde un diverso comportamento funzionale.

**Cori M.** - L'ossidazione dei protidi nello sviluppo embrionale di *Sepia officinalis* [*Oxydatio protidarum quoad accretionem embryonalem speciei « Sepia officinalis »*]. Pubbl. Staz. Zool., XV, 3, 368-376. Napoli (1936). **b - 410**

Il 13,7 % dei protidi contenuti nell'uovo di *Sepia officinalis* viene ossidato nel corso dello sviluppo dell'embrione, quindi le uova acquatiche possono utilizzare, come materiale dinamogeno, notevoli quantità di protidi. L'ossidazione, scarsa nei primi stadi dello sviluppo, nei quali viene ossidata una notevole quantità di altro materiale (glucidi), è intensa allo stadio XIII di Naef e intensa resta fino alla fine dello sviluppo embrionale.

**Davidson F. & Shostrom O. E.** - Physical and chemical Changes in the Pink Salmon during the Spawning Migration [*Mutationes physicae et chemicae in specie « Oncorhynchus gorbuscha » inter migrationem reproductionis causa*]. 15 figs., 9 tabl. U. S. Dpt. Comm., Bur. Fish., Invest. Rep. 33, II, 1-37. Washington D. C. (1936). **b - 411**

Relation of fishery to life history of salmon. Effect of sexual development on physical structure of pink salmon. Physical changes in pink salmon during spawning migration. Chemical changes. Effect of physical and chemical changes in pink salmon on the quality of commercial pack. Bibl.

**Drilhon A.** - Quelques constantes chimiques et physicochimiques du milieu intérieur de crabe sacculiné (*Carcinus maenas*) [*Constantes chemicae et chemico-physicae quoad medium internum cancri post sacculinae actionem*]). 1 fig., 1 tabl., C. R. Acad. Sc., CCII, 11, 981-982. Paris (1936). **b - 412**

Dans la présente Note l'A. communique les résultats d'un sérodiagnostic de la sacculine chez le crabe *C. maenas*, obtenus au moyen du dosage dans l'hémolymphe des animaux des cathions alcalins et alcalino-terreux d'une part et des protéines de l'autre.

**Drilhon A. & Florence G.** - Recherches physicochimiques sur le sang des Poissons [*Investigationes physico-chemicae de sanguine Piscium*]. Arch. Phys. Biol., XII, 180-193. Paris (1935). **b - 413**

Recherches entreprises sur des Sélaciens et Téléostéens marins et d'eau douce pour étudier les courbes de neutralisation du sérum du sang. Différences des figures cataphorétiques des Sélaciens et des Téléostéens.

**Drilhon A. & Florence G.** - Nouvelle contribution à l'étude physico-chimique du sang des poissons [*Contributiones novae quoad studium sanguinis Piscium e physico-chemia*]. Bull. Soc. Chim. Biol., 18, 1055-1073. Paris (1936). **b - 414**

L'influence du changement de la concentration du medium extérieur sur la courbe de pH du serum et la position du point isoélectrique des protéines du serum chez *Anguilla anguilla* et *Muraena Helena* ont été étudiées.

**Drilhon A. & Pora E. A.** - Ionisation et tampons du milieu intérieur du crabe parasité (*Carcinus maenas* sacculiné) [*De ionisatione et obturatione medii interioris cancri parasitati*]. Graph., C. R. Acad. Sc., CCII, 14, 1309-1311. Paris (1936). **b - 415**

Dans une précédente Note les A.A. ont montré l'influence de la sacculine sur les cathions alcalino-terreux et sur les protéines du sérum de *C. maenas*; dans la présente Note ils apportent des résultats ayant trait à la mesure de la réserve alcaline, du pH et de la courbe du coefficient tampon.

**Florkin M.** - Sur l'activité anhydrasique du milieu interne des Invertébrés [*De activitate anhydrasica medii interni Invertebratorum*]. Acad. R. Belgique, Bull. Cl. Sc., XX, 5, 922-930. Bruxelles (1934). **b - 416**

Dans le sang d'*Arenicola marina* et de *Marphysa sanguinea* et dans le liquide cœlomique de *Dasybranchus caducus* et de *Sipunculus nudus* l'A. a pu mettre en évidence la présence d'anhydrase. L'activité de ce ferment.

**Glaister D. & Kerly M.** - The Oxygen Consumption and Carbohydrate Metabolism of the Retraction Muscle of the Foot of *Mytilus edulis* [*De oxygeni consumptione et carbohydrati metabolismo in musculo pedis speciei « Mytilus edulis »*]. Journ. Physiol., LXXXVII, 56-66. Cambridge & London (1936). **b - 417**

Occurrence of glycogen in the retraction muscle. Influence of temperature and pH on the oxygen consumption of the muscle.

**Haas P., Hill T. G. & Karstens W. K. H.** - The Metabolism of Calcareous Algae. II. The Seasonal Variation in certain Metabolic Products of *Corallina squamata* Ellis [*De metabolismo Algarum calcarearum: II. Variationes pro anni tempore aliquarum productionum metabolicarum speciei « Corallina squamata »*]. 6 figs., 2 tabl., Ann. Bot., XLIX, 609-619. London (1935). **b - 418**

The quantity of Ca and Mg contained is higher in winter than in spring; maximum and minimum periods. Seasonal variation of ammoniacal nitrogen.

**Jacques A. G.** - The Kinetics of Penetration, XII. Hydrogen Sulfide [*De cinetica penetrationis II. De Hydrogeno sulphorato*]. 4 figs., 4 tabl., Journ. of Gen. Physiol., XIX, 3, 397-418. St. Georges West, Bermuda (1936). **b - 419**

The penetration of $H_2S$ from sea water into *Valonia* in various circumstances is shown in three tables.

**Kellaway C. H.** - The Action of Mussel Poison on the Nervous System [*Actio viri molluscorum in systema nervorum*]. Austr. Journ. Exp. Biol., & Med. Sc., XIII, 79-94. Sydney (1935). **b - 420**

This poison is a neurotoxin which has a central as well as a peripheral action at the same time, the first being exercised on the cardio-vascular and respiration centres and the second on the nervous system.

**Lami R.** - Sur la variation d'alcalinité de l'eau de mer produite par des Algues calcaires de profondeur [*De variatione alcalinitatis aquae maris

*ex Algis calcareis in profunditatibus maris*]. Bull. Lab. Marit. Dinard, 16, 15-18. Rennes (1936). **b - 421**

L'élévation du pH produite par trois espèces de *Lithothamnium* est lente et progressive: l'assimilation se continue donc pendant la belle saison, ainsi que le laissait à supposer la teinte vive de leur thalle.

**Lindahl P. E.** - Ueber die Rolle des $SO_4$ - Jons in der Entwicklung des Seeigelkeims [*Momentum jonis $SO_4$ pro accretione embryonum in Echinis*]. Ark. f. Zool., XXVIII B, H. 2, 4, 1-4. Stockholm (1935). **b - 422**

Vf. hat die Wirkung von $SO_4$ - Mangel auf der Atmung des Seeigeleies studiert und ist zu der Schlussfolgerung gekommen, dass die $SO_4$ - Jonen, um die bei dem Stoffwechsel entstehenden Phenole zu entgiften, nötig sind.

**Marks G. W.** - The Inactivation of Catalases of certain marine Plants by Oxygen [*De catalasica inactivatione aliquarum plantarum marinarum per oxygenum*]. Biochem. Journ., XXIX, 509-512. Cambridge & London (1935). **b - 423**

**Mieller H.** - Die Beziehungen zwischen dem Nahrungs - und Speicherfett der Fische [*Correlationes inter substantias crassas alimentationis et substantias crassas in Piscium corporibus conditas*]. Tab., Ztschr. f. Fisch., XXXIV, 2, 163-169. Neudamm & Berlin (1936). **b - 424**

Untersuchungen sind auf 16 verschiedenen Fischen, unter denen *Anguilla vulgaris, Salmo salar*, und *Pleuronectes flesus*, ausgeführt worden. Angabe von Nahrungstieren und Jodzahlwerten der Fette. Uebereinstimmung zwischen diesen Fetten und denjenigen höherer warmblütiger Tiere. Abhängigkeit der Speicherfette vom Nahrungsfett.

**Munro Fox H.** - Metabolism of Cold- blooded Animals in Different Latitudes [*De metabolismo animalium sanguine frigido, differentibus latitudinibus*]. 1 graph., Nature, CXXXVII, 3474, 903-904. London (1936). **b - 425**

A. has compared seven species of cold-water invertebrates from the west coast of Sweden with seven nearly related species from the waters of Plymouth with regard to the oxygen consumptions or respiratory movements and the ciliary movements (results expressed graphically). In addition, comparison has also been made between single eurythermal species of different latitudes ,the preliminary results of which show adaptations within single species. (Further information will be published in Proc. Zool. Soc.).

**Oshima S.** - On the Property of the Fat in Cultured Eel and Carp [*Peculiaritas substantiae crassae anguillae et carpae per artificium nutricatarum*]. (In Jap., Engl. Summ.). Journ. Imp. Fish. Exp. Stat., VI, 221-229. Tokyo (1935). **b - 426**

Results of a study on the effect of different feeding on the content in bromine of the fat of cultured eel and carp.

**Pora E. A.** - Différences chimiques et physicochimiques du sang suivant le sexe [*Differentiae chemicae et physico-chemicae sanguinis ex sexu*]. Ann. Physiol. et Physico-chim. Biol., XII, 206-237. Paris (1936). **b - 427**

Comparaison entre mâles et femelles par l'étude des caractères chimiques et physiques du sang sur des invertébrés, tels *Paracentrotus lividus, Maja squinado* et *Sepia officinalis* et des Poissons: *Raia, Scyllium* et *Labrus bergylta.*

**Pora E. A.** - Sur les différences chimiques et physico-chimiques du sang des deux sexes de quelques Invertébrés marins [*Differentiae chemicae et physico-chemicae sanguinis ambisexualis aliquorum Invertebratorum marinorum*]. 3 tabl., Bull. Inst. Océanogr., 689, 1-4. Monaco (1936). **b - 428**

Ayant trouvé des différences chimiques et physicochimiques au cours de ses études antérieures dans le sang des deux sexes des Vertébrés inférieurs, Sélaciens et Téléostéens (v. C. R. Soc. Biol., CXIX, p. 373, CXXI, p. 102 et p. 105) l'A. a porté ses recherches aussi sur les Invertébrés. Dans la présente Note il communique les résultats obtenus sur des Echinodermes (*Paracentrotus lividus*, mâle et femelle), Crustacés (*Maia squinado*) et Céphalopodes (*Sepia officinalis*).

**Richet C. & Portier P.** - Recherches sur la toxine des Coelentérés et les phénomènes d'anaphylaxie [*Investigationes in toxinam Coelenteratorum et phaenomena anaphylactica*]. Rés. Campagnes Scient., XCV, 1-23. Monaco (1936). **b - 429**

Expériences réalisées par les A.A. dans le Laboratoire de la « Princesse Alice » durant la campagne du 1901. La physalie et l'action des nématocystes sur la grenouille. Extraction par divers solvants de la toxine des nématocystes et étude des effets physiologiques. La toxine des Vélelles, et des Actinies. Immunisation et anaphylaxie.

**Spärck R.** - On the Relation between Metabolism and Temperature in some Marine Lamellibranches, and its zoogeographical Significance [*Correlationes inter metabolismum et temperaturam in Lamellibranchiatis marinis earumque significatio zoogeographica*]. Kgl. Dansk. Vidensk. Selsk. Biol. Medd., XIII, 5, 1-27. København (1936). **b - 430**

There seems to be a marked relation between the type of oxygen consumption and the ecology of the species, so that species which can move or are living above the bottom have a relatively higher consumption than that of the species living more or less sedentary in the bottom. It is also likely that an important influence of the temperature on the distribution of marine animals is due to the effect of temperature on the metabolism, and thereby on the food problem and competition among the species (A.).

**Van der Ghinst** - Mise en evidence de ferments dans le syncytium vitellin de la Truite [*De fermentis in syncytio vitellino Truttae*]. Bull. Histol. appl., XII, 257. Paris & Lyon (1935). **b - 431**

L'A. a remarqué, que le syncytium de blastulas de deux jours de Truite peut digérer de l'amidon. Les expériences ont été entreprises à l'aide de la méthode de Pickford et Darris.

**Waris H.** - Ueber das Calciumbedürfnis der niederen Algen [*Necessitas calcica Algarum inferiorum*]. Planta, 25, 465-470. Berlin (1936). **b - 432**

Untersuchungen an *Eremerosphaera viridis* und zwei *Microspora*-Arten.

**Welsh M. F.** - Oxygen Production by Zoöxanthellae in a Bermudan Turbellarian [*Productio oxygeni a Zoöxanthellis in specie quadam Turbellaria ab insulis* Bermuda]. 3 tabl., Biol. Bull., LXX, 2, 282-287. Lancaster, Pa. (1936). **b - 433**

The object of the present investigation is to determine whether a sufficient amount of oxygen might be produced by Zoöxanthellae to be of value to flatworms harboring them and if so, to determine the quantitative relations between oxygen production and consumption in the light and in the dark. Affirmative results.

**Zo Bell C. E. & Wells N. A.** - Tolerance of *Fundulus parvipinnis* to certain bactericidal Substances [*Tolerantia speciei « Fundulus parvipinnis » ad substantias quasdam bactericidas*]. Proc. Soc. Exper. Biol. and Med. XXXII, 704-706. New York (1935). **b - 434**

## Compositio chemica organismorum marinorum.

**Baldwin E. & Needham D. M.** - Phosphagen in Echinoid Muscle and in Electrical Tissue [*De phosphagene in muscolo et texto electrico Echinodorum*]. Nature, CXXXVIII, 3490, 506. London (1936). **b - 435**

A.A. have confirmed the existence in the jaw muscle of *Sphaerechinus granularis* of enzymes analogous to those found in electrical muscles of *Torpedo*. Phylogenetic interest of the results.

**Białaszewicz K. & Kupfer Ch.** - O składzie mineralnym miesni zwierzat morskich [*De compositione minerali musculorum animalium marinorum*]. (En pol.; rés. franç.) Acta Biol. Exper.. IX, 13, 228-235. Varsovie (1935).

(—) Arch. Int. Physiol., XLII, 398-404.. Paris (1936). **b - 436**

Dans le but de comparer la composition minérale des muscles des animaux marins avec celle des animaux d'eau douce on a effectué des dosages microchimiques de quatre bases (K, Na, Ca, Mg) dans les cendres des muscles d'*Astacus* et *Perca* et d'animaux marins provenant en partie de la Mer Baltique (*Mesidothea entomon, Mytilus edulis*) et en partie de la Méditerranée (*Aphrodite aculeata, Holothuria tubulosa, Stichopus vulgaris, Squilla mantis, Eriphia spinifrons, Torpedo ocellata*).

**Bifano M.** - Variazioni del contenuto in insaponificabile di oli di tonno di diversa provenienza. Nota preliminare [*Variationes materiae insaponificabilis oleorum thynnorum ex variis locis provenientium*]. Boll. Soc. It. Biol. Sper., XI, 9, 847-848. Napoli (1936). **b - 437**

I fegati di tonni di provenienza spagnola danno il 54 % di sostanze estraibili con cloroformio, con una resa di olio del 43,04 %, calcolata sul peso del fegato secco, che dà il 5,83 % di insaponificabile, contenente il 59 % di colesterina. Nei fegati di tonni di provenienza italiana l'estratto cloroformico costituisce il 44,8 % riferito al fegato secco, con un contenuto in insaponificabile del 2,20 % e ricchissimo di colesterina. Le variazioni sono probabilmente dovute alla diversa alimentazione.

**Borei H.** - Ueber die Zusammensetzung der Körperflüssigkeiten von *Myxine glutinosa* L. [*De fluidorum compositione in corpore speciei « Myxine glutinosa »*]. Ark. f. Zool., XXVIII B, H. 2, 3, 1-5. Stockholm (1935). **b - 438**

Blut und Flüssigkeit des venosolymphatischen Saftraumsystemes von *Myxine glutinosa* L. ist auf Chlor und Harnstoff analysiert worden. Die Körpersäfte zeigen durch höheren Chlor- und niedrigeren Harnstoffgehalt abweichende Verhältnisse von denen der Elasmobranchier und durch höheren Chlor- und Harnstoffgehalt von denen der marinen Teleostier. Die Körpersäfte müssen gegen das Aussenmedium hypotonisch sein. (Vf.).

**Carteni' A. & Morelli A.** - Ricerche sulla costituzione chimica dei muscoli di alcuni animali marini. III. Le proteine del tessuto muscolare di *Mustelus laevis* M. T. IV. Sostanze azotate estrattive del tessuto muscolare di *M. laevis* [*Investigationes in constitutionem chemicam musculorum aliquorum animalium marinorum. III. Proteinae texti muscularis speciei « Mustelus laevis ». IV. Substantiae azotatae extracticiae texti muscularis speciei «M. laevis»*]. Quad. Nutr., III, 1/2, 127-129; 130-132. Napoli (1936). **b - 439**

Con il metodo di Van Slyke sono state esaminate le proteine del tessuto muscolare del *Mustelus laevis*. Confrontando questi valori con quelli trovati per i Teleostei, non esistono differenze sostanziali. L'N. estrattivo totale del *Mustelus* è più abbondante che nei muscoli dei Teleostei e ciò perchè nei muscoli e nei liquidi dei Selaci si trovano notevoli quantità di urea. In *Mustelus* è anche più abbondante l'azoto lisinico.

**Carteni' A. & Morelli A.** - Ricerche sulla costituzione chimica dei muscoli di alcuni animali marini. V. Le proteine del tessuto muscolare di *Octopus vulgaris* Lam. VI. Le sostanze azotate estrattive del tessuto muscolare di *Palinurus vulgaris* Latr. [*Investigationes in constitutionem chemicam musculorum aliquorum animalium marinorum. V. Proteinae texti muscularis speciei « Octopus vulgaris ». VI. Substantiae azotatae extracticiae texti muscularis speciei « Palinurus vulgaris »*]. Quad. Nutr., III, 3/4, 225-226; 227-228. Napoli (1936). **b - 440**

Gli AA. hanno analizzato col metodo di van Slyke, le proteine del tessuto muscolare di *Octopus vulgaris*; confrontando i valori ottenuti con quelli del *Mugil cephalus* e del *Mustelus laevis* si rileva che non esistono differenze notevoli nel contenuto di N totale e delle singole frazioni di N, tra le classi di animali esaminate. In *Palinurus vulgaris* gli autori hanno determinato l'azoto totale e le sue varie frazioni, osservando l'assenza di creatina.

L'N estrattivo dei muscoli del *Palinurus* è quasi doppio di quello dei Teleostei, ma risulta notevolmente inferiore a quello dei Selaci.

**Denisov I. A.** - Chemische Zusammensetzung der Fette des Weisswals [*Compositio chemica substantiae crassae speciei «Delphinapterus leucas »*]. (In Russ., Dtsch. Rés.). Trans. Inst. Fish. & Oceanogr. USSR (VNIRO), III, 135-154. Moscow & Leningrad (1936). **b - 441**

Konstanten der Fette. Beziehung zwischen den Fetten und der niedrigen Temperatur. Untersuchungen über die chemischen Zusammensetzungen.

**Engel G. L. & Chao J.** - Comparative Distribution of Phosphates in the Skeletal and Cardiac Muscles of *Limulus polyphemus* [*Distributio comparata phosphatorum in musculo scheletrico et cardiaco speciei « Limulus polyphemus »*]. Journ. Biol. Chem., CVIII, 389-393. Baltimore (1935). **b - 442**

Study on the relations between Phosphate percentage in the skeletal muscles and those in the cardiac muscles. Difference in distribution ascertained.

**Fujikawa K. & Naganuma H.** - Chemical Composition of Sardine, *Sardinia melanosticta* (C. & V.) from Tyôsen. I. Comparative Study on Dark Muscle and White Muscle [*Compositio chemica speciei « Sardinia melanosticta » a Tyôsen provenientis. I. Studium comparativum musculi nigri et musculi albi*]. (In Jap., Engl., Rés.). 5 tabl., Bull. Jap. Soc. Scient. Fish., V, 2, 95-97. Tokyo (1936). **b - 443**

The dark muscle is richer in crude fat, sulfur, and iron but poorer in total nitrogen than the white muscle.

**Garrault H.** - L'élastoïdine des Poissons Téléostéens [*De elastoidina Piscium Teleosteorum*]. Ann. Physiol. Physicochim. Biol., XII, 291-300. Paris (1936). **b - 444**

Les ligaments cornés qui soutiennent les nageoires des Téléostéens sont formés par l'élastoidine: une substance voisine du collagène. Propriétés chimiques et physiques de cette substance, découverte par Krukenberg.

**Kessel E.** - Ueber Verfärbung mariner Molluskenschalen durch Einlagerung von Eisen [*De coloratione cochlearum molluscorum continentiae ferri causa*]. 6 Abb., Zool. Anz., CXV, 5/6, 129-139. Leipzig (1936). **b - 445**

Beschreibung der an *Buccinum, Cardium, Ostrea* u. a. marinen Mollusken beobachteten Erscheinung von dunkler Schalenfärbung. Das durch chemische Analyse aufgewiesene Eisen ist zum Teil an Schwefel gebunden und stammt aus dem eisenhaltigen Schlick.

**Lederer E. & Moore T.** - Echinenone as a Provitamin A [*Substantia nomine* Echinenone *ut provitamina A*]. Nature, CXXXVII, 996. London (1936). **b - 446**

Chemical properties of this pigment, which has been isolated from the sexual apparatus of *Echinus esculentus.*

**Lönnberg E.** - On the Occurrence of Carotenoid Pigments in the Eyes of certain Animals [*De pigmentis carotinoidibus in oculis aliquorum animalium*]. Ark. f. Zool., XXVIII A, H. 1, 4, 1-14. Stockholm (1935). **b - 447**

Except birds, A. has also investigated marine fishes and crustaceans, together about 40 species, and in most cases found carotenoid pigments present, which can be extracted by organic solvents. Whether the substance is the same in all cases is difficult to say at the present standpoint. It is, however, characterized by a spectrum which, with some variations, very closely resembles that of xanthophyll.

**Lönnberg E.** - Note on the presence of Carotenoids in the « Liver » organs of Invertebrates [*Nota de substantiis carotinoidibus in organis Invertebratorum quae organa considerari possunt ac hepar Vertebratorum*]. Ark. f. Zool., XXVIII A, H. 1, 6, 1-4. Stockholm (1935). **b - 448**

From his examinations on some *Mollusca, Crustacea* and *Asteroidea* A. concludes that the so-called « liver »-organs of *Mollusca* and *Crustacea*, and the hepatic diverticles of the *Asteroidea* in addition to their digestive functions also serve to store up carotenoid substances, like the real liver of the Vertebrates. (From A.).

**Lönnberg E.** - On the Occurrence of Carotenoid Pigments in various Organs of Fishes [*De pigmentis carotinoidibus in differentibus Piscium organis*]. 3 figs., Ark. f. Zool., XXVIII A, H. 3, 15, 1-7. Stockholm (1936). **b - 449**

Examination of carotenoid substances in the eyes, blood and liver of respectively eight, ten and seven Teleostean species.

**Lönnberg E.** - On the Occurrence of Carotenoid Substances in Cephalopods [*Substantiae carotinoides in Cephalopodis*]. 2 figs., Ark. f. Zool. XXVIII B, H. 3, 8, 1-4. Stockholm (1936). **b - 450**

Examinations of livers, eyes and eggs of *Sepiola scandica, Rossia macrosoma* and *Eledone cirrosa* show some traces of carotenoid substances. Comparison with the carotenoids of Teleostean fishes. Importance of these substances.

**Nagata Y.** - Iodine Content in Powdered *Laminaria* [*Quod jodii continetur in Laminariis pulverulentis*]. (In Jap., Engl. Summ.). 2 tables, Bull. Jap. Soc. Scient. Fish., V, 1, 45-46. Tokyo (1936). **b - 451**

Account of the richness of the powdered sea-weed *Laminaria* in iodine, of *L.* immersed in dilute acetic acide, and established in relation on the successive layers, which differ in iodine content.

**Naylor G. L. & Russel-Wells B.** - On the Presence of Cellulose and its Distribution in the Cell-walls of brown and red Algae [*De cellulosae distributione in cellulis externis Algarum*]. 5 fig., Ann. Bot., XLVIII, 635-641. London (1934). **b - 452**

Results of the microchemical investigations on the distribution of cellulose in the cell-walls.

**Norris R. & Rao Rama** - Phosphatases of marine Invertebrates [*De phosphatasi Invertebratorum marinorum*]. 2 tabl., Journ. Biol. Chem., CVIII, 3, 783-790. Baltimore (1935). **b - 453**

Distribution of phosphatase, its relative activity and optimum pH studied in tissues and body fluids of *Coelenterata, Annulata, Echinodermata,* and *Mollusca.* Results expressed in tables.

**Ôya T. & Hirosawa H.** - The Content of the Ascorbic Acid in the Marine Animals and Products [*De acido ascorbico in animalibus marinis*]. (In Jap., Engl. Rés.). 3 tabl., Bull. Jap. Soc. Scient. Fish., V, 3, 195-198. Tokyo (1936). **b - 454**

Presence of ascorbic acid shown in various organs, especially the spleen and the kidney, of Fish, *Crustacea* and *Mollusca.* The commercial preparation of the seaweed *Porphyra tenera,* called « Asakusanori » is very rich in ascorbic acid.

**Ôya T. & Takahashi T.** - On the Growth of Accelerating Substance in the Liver of the Marine Animals [*De accretione substantiae accelerantis in hepate animalium marinorum*]. (In Jap., Engl. Rés.). 3 graph. figs., Bull. Jap. Soc. Scient. Fish., V, 3, 192-194. Tokyo (1936). **b - 455**

Experiments have shown that this substance exists in the insoluble as well as soluble parts of the bonito-liver and also in the extract of the whale-liver.

**Paulais R.** - Sur la localisation du nickel dans les organes des mollusques lamellibranches [*De nichelii localisatione in organis molluscorum lamellibranchiatorum*]. C. R. Acad. Sc., CCIII, 15, 685-687. Paris (1936). **b - 456**

Etude sur *Mya arenaria, Pecten maximus, Gryphea angulata, Scrobicularia piperata* et *Cardium edule*: nickel en milligrammes par kilogramme dans les différents organes. Les branchies et l'hépato-pancréas en contiennent la plus haute quantité.

**Quagliariello G.** - Il valore nutritivo dei prodotti della pesca [*Valor alimentaris fructuum piscationis*]. 43 pp., Atti Conv. di Pesca, Tip. A. Manuzio. Roma (1936). **b - 457**

L'A. tratta della composizione chimica, della digeribilità e del valore biologico della carne di pesce. Il testo è corredato da numerose tabelle riguardanti la costituzione chimica della carne di animali marini, uccelli e mammiferi.

**Schmidt- Nielsen S., Astad A., Flood A., Stene J. & Sørensen N. A.** - Statistische Untersuchungen über den Vorrat einiger Knochenfische an Vitamin A. [*Investigationes statisticae in vitaminam A aliquorum Teleosteorum*]. 24 graph. Fig., Tab., 77 S. gl.-Norsk. Vidensk. Selsk. Skr. II, 40. Trondheim (1936). **b - 458**

Untersuchungen über den Lebergehalt, Fettgehalt der Leber und Tintometerzahl des Trans und die Beziehung zwischen je zwei dieser Grössen sowie den relativen Vorrat des Fisches an Vitamin A bei *Macrurus rupestris*, *Gadus Esmarkii*, *G. merlangus* und *G. poutassou*.

**Shimada Kiyoshi & Tanaka Eiji** - Distribution of Inositol in Fish [*Distributio substantiae* Inositol *in Piscibus*]. (In Jap., Engl. Rés.). 2 tabl., Bull. Jap. Soc. Scient. Fish., IV, 5, 305-306. Tokyo (1936). **b - 459**

The A.A. have determined inositol in the living muscles of various kinds of fishes after Young's method. The results are summarized in two tables.

**Smith H. W.** - The Composition of Urine in the Seal [*De urinae compositione in phoca*]. Journ. Cell. & Comp. Physiol., VII, 3, 465-474. Philadelphia (1936). **b - 460**

Rate of the urine formation. Composition. From the analysis of the inorganic composition of the urine and from the residual salts it is concluded that seals do not swallow any considerable quantity of sea water but that the urine derives exclusively from preformed water of the food and water of oxidation.

**Sörensen N. A.** - Ueber die Carotinoide des Lachsfleisches [*De carotinoide in musculo Salmonis*]. Ztschr. f. phys. Chem., CCXXXV, 8-11. Strassburg (1935). **b - 461**

Das in dem Lachsfleisch enthaltene Pigment ist Astacin.

**Tadokoro Tetsutaro** - Chemical Studies on the Proteins and the Carbohydrates of *Iridaea laminarioides* [*Studia chemica circa proteinas et carbohydratos speciei «Iridaea laminarioides»*]. 11 tabl., Scient. Pap. Inst. Algol. Res., Hokkaido Imp. Univ., I, 1, 91-118. Sapporo (1935). **b - 462**

General constituent of the alga and seasonal variations. Chemical properties of proteids and chromoproteids of this alga, found to be near to phycaerythrin and to phycocyan but not the same. The dilute alcohol soluble polysaccharides and the hot water soluble polysaccharide of this alga and their strong viscosity. The alkali soluble and insoluble polysaccarides. The fermentation products of arabinose and fucose in this alga caused by *Aspergillus oryzae*.

**Takahashi Toyoo** - Distribution of Amino Acid in the Food Stuffs for Fish [*Distributio aminoacidorum in substantiis quae Pisces nutricant*]. (In Jap., Engl. Rés.). 1 tabl. Bull. Jap. Soc. Scient. Fish., IV, 5, 301-302. Tokyo (1936). **b - 463**

Analysis of several food stuffs for fish after Rosedale's method. The results obtained are shown in a table.

**Tang P. S. & Chang C. S.** - Further Observations on the Iodine Contents of Chinese Marine Algae [*Observationes ulteriores de jodio quod continetur in Algis marinis sinensibus*]. Chin. Journ. Physiol., IX, 4, 369-374. Peking (1935). **b - 464**

**Tang P. S. & Whang P. C.** - Iodine Contents of ten Species of Chinese Marine Algae [*Jodium quod continentur in 10 speciebus algarum marinarum sinensium*]. Chin. Journ. Physiol., IX, 3, 285-290. Peking (1935). **b - 465**

**Yamamura Yarokuro** - Chemical Study of Food- organisms for Fish. V. Tyrosine and Tryptophane Contents [*Studium chemicum organismorum quae pisces nutricant. V. De tyrosina et tryptophano*]. (In Jap.; Engl. Rés.). 1 tabl., Bull. Jap. Soc. Scient. Fish., IV, 5, 303-304. Tokyo (1936). **b - 466**

Results of analysis of ten kinds of food organisms for fish with the Folin-Marenzi's and Tillmans - Alt's methods of determination.

# OECOLOGIA

## Hydrobiologia - Hydrologia - Adaptatio loco ambienti - Effectus lucis, temperaturae, salinitatis et pressionis in organisma marina.

**Alexander W. B., Southgate B. A. & Bassindale R.** - Summary of Tees Estuary Investigations. Survey of the River Tees. Part II. The Estuary, Chemical and Biological [*Compendium investigationum peractarum in aestuarium fluminis* Tees. *Inspectio fluminis* Tees. *Pars II: Aestuarium. Investigationes chemicae et biologicae*]. 7 figs., Dpt. Scient. & Ind. Res. Water Pollution Research, Techn. Pap. No. 5. H. M. Stat. Office. London (1935).

(—) Journ. Mar. Biol. Ass., XX, 3, 717-724. Plymouth (1936). **b - 467**

Description of the estuary; tidal movements, flora and fauna, with special reference to the death of migratory fish due to water pollution; chemical investigations.

**Beccari N. & Baldasseroni V.** - Effetti degli aumenti di pressione sulle anguille argentine [*Effectus augmentatae pressionis in Anguillis argenteis*]. Boll. Soc. It. Biol. Sper., XI, 9, 862-864. Napoli (1936). **b - 468**

Anguille argentine sottoposte a pressione continuata (10 atm. per 30 giorni) a temperatura pressochè costante (12°-13°), non mostrarono alcun segno di sofferenza. L'esame istologico delle gonadi non lascia rilevare alcuna deviazione dal normale, neanche imputabile a disagio ambientale.

**Becquerel P.** - La vie latente de quelques algues et animaux inférieurs aux basses températures et la conservation de la vie dans l'univers [*De vita latenti aliquarum algarum et animalium inferiorum, demissis temperaturis, deque conservatione vitae universae*]. C. R. Acad. Sc., CCII, 11, 978-981. Paris (1936). **b - 469**

Des observations faites sur des terres contenant diverses algues et microorganismes et qui ont été desséchées graduellement, pendant 3 mois, l'A. conclut que les Cyanophycées, les Chlorophycées et les Diatomées, ainsi que les

animaux de ses cultures (Anguillules, Rotifères, et leurs œufs; kystes des Amibes, des Héliozaires et des Infusoires) passent graduellement de la vie active à la vie ralentie de l'anhydrobiose. Il en conclut qu'il est possible de suspendre expérimentalement tous les phénomènes physicochimiques de la vie sans provoquer la mort. Partant de ces résultats il tire quelques conclusions sur l'avenir de la vie dans l'univers.

**Borcéa J.** - Conditions de vie et faciès faunistiques dans la Mer Noire [*De vitae condicionibus et faciebus faunisticis Ponti Euxini*]. Rev. Scient., LXXIV, 1, 1-9. Paris (1936). **b - 470**

Caractéristiques particulières de la Mer Noire: forme, étendue, situation; courants; température et migration des formes; nature du fond, faciès: la zone sous-terrestre, la zone littorale proprement dite, la zone littorale plus profonde. Enumeration des faciès divers: pierreux, sablonneux, vaseux; répartition des Algues, des Spongiaires, Coelentérés, Vers, Mollusques, Crustacés et Poissons.

**Borcéa J.** - Faune de pénétration de la mer Noire dans des eaux de concentration différente [*De fauna in Pontum Euxinum penetrata quoad aquas diversa concentratione*]. Rev. Scient., LXXIV, 7, 193-200. Paris (1936). **b - 471**

Description des limans communiquant avec ou séparés de la Mer Noire, leur faune divisée en 3 catégories: 1. formes d'eau douce, 2. formes marines et 3. formes sténohalines. Liste des espèces. Histoire géologique de la Mer Noire.

**Borei H. & Wernstedt Ch.** - Zur Oekologie und Variation von *Psammechinus miliaris* [*De oecologia et variatione speciei « Psammechinus miliaris »*]. 4 Tab., 1 Karte, Ark. f. Zool., XXVIII, A., H. 3, 14. 1-15. Stockholm (1936). **b - 472**

Beschreibung von zwei an der schwedischen Westküste vorbefindlichen scharf ausgeprägten Standortsvarietäten, den sog. S- und Z-Typen, untersucht durch Kultivierungsversuche. Annahme eines Einflusses von phänotypischen Faktoren wie Salzgehalt, Temperatur und Beleuchtung. Erörterung über eine mögliche Mischung von Larven verschiedener Bestände.

**Boulenger E. G.** - A Natural History of the Seas [*Marium historia naturalis*]. 9 pls., 215 pp., D. Appleton-Century Co. New York (1936). **b - 473**

Description of some of the more interesting groups and species of marine animals. Sketches.

**Breder C. M. Jr. & Harris J. E.** - Effect of Light on Orientation and Stability of Young Plectognath Fish [*De lucis effectu in orientationem et stabilitatem in juvenibus Piscibus plectognathis*]. 3 figs., Pap. Tortugas Labor., XXIX, 25-36. Washington (1936). **b - 474**

Report on experiments undertaken with *Monacanthus* (*Stephanolepis*) *hispidus* and *Lactophrys triqueter*. Analysis of movements made in response to light, attempt to explanations.

**Brooker Klugh A. & Curtis Newcombe L.** - Light as a Controlling Factor in the Growth of *Balanus balanoides* [*De luce ac factore ad inspiciendam accretionem speciei « Balanus balanoides »*]. Canad. Journ. of Research, XIII, 39-44. Ottawa (1935). **b - 475**

In natural conditions, the growth of *Balanus* in spring and summer is proportional to illumination in their habitats.

**Brotzky K. & Zenkewitch L.** - Biological Productivity of Sea Waters [*Productivitas biologica aquarum marinarum*]. (In Russ., Engl. Summ.). Zool. Journ., XV, 1, 13-25. Moskva (1936). **b - 476**

Discussion of the three basic conceptions on which the study of the live organic mass has to be founded, e. g. the biological productivity, the biomass and the biological production. The main sections of the study of phenomena of biological productivity in a basin.

**Brunelli G.** - Problemi di biologia marina con particolare riguardo alla ittiologia [*Problemata biologiae marinae. Agitur particulatim de ichthyologia*]. Atti Soc. It. Progr. Sc., Riun. 24, IV, 1, 8-16. Roma (1936). **b - 477**

L'A. discute alcuni quesiti generali riguardanti le condizioni di vita nel Mediterraneo, mettendone in rilievo la povertà di nitrati e fosfati e quindi di plancton. Paragona queste condizioni con quelle dei Mari Nordici, nei riguardi particolarmente della distribuzione qualitativa e quantitativa dei pesci e in rapporto al loro ritmo riproduttivo.

**Brunelli G. & Cannicci G.** - Notizie preliminari sulle caratteristiche chimiche e biologiche del Lago di Massaciuccoli [*Notitiae priores de peculiaritatibus chemicis et biologicis Lacus Massaciuccoli*]. Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Mat. Natur., XXII, 12, 598-604. Roma (1935). **b - 478**

Il Lago-stagno costiero di Massaciuccoli può venire classificato di tipo « oligoalino », applicando con qualche riserva le classificazioni della scuola svedese e tedesca esso può rientrare nel tipo « alcalitrofico » per molti caratteri chimico-fisici e biologici. Elenco delle specie animali o vegetali caratteristiche, tali da dare un'idea della *facies* dominante del Lago di Massaciuccoli, che comunica con il mare senza però risentire notevoli sbalzi di salinità, anche per le scarse maree del Tirreno.

**Bull O. H.** - Studies on Conditioned Responses in Fishes. Part VI. - The Formation of a Conditioned Motor Response in *Blennius pholis* L. to a Change in Direction of Current Flow [*De reactionibus excitatis experimentali ratione in Piscibus. Pars VIª. Quomodo formetur reflexus motorius conditionalis in « B. pholis » pro variata currentiae directione*]. 2 figs., 2 tables, Dove Mar. Labor., Rep. Year End. July 31st, 1935, Ser. 3, 3, 37-48. Newcastle o. Tyne (1935). **b - 479**

Results of observation on seven individuals of the fish *Blennius pholis* L. conditioned to a change in direction of water flow to 90°, using food as unconditioned stimulus. In five individuals completely negative responses to current changes less than 90° were obtained after conditioning was well established. In the other two fishes some evidence of discrimination was obtained.

**Bull O. H.** - Studies on conditioned Responses in Fishes. Part VII. Temperature Perception in Teleosts [*De reactionibus excitatis experimentali ratione in Piscibus. Pars VIIª. Temperaturae perceptio in Teleosteis*]. 2 figs., 3 tabl., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 1-27. Plymouth (1936). **b - 480**

By the use of a « conditioned response » technique it has been shown that teleostean Fishes respond « purposively » to an increase in temperature of the water surrounding them of between 0.03°C and 0.10°C. It is probable that the former figure is true for all the species investigated, but it has only been practicable to establish it with certainty in a few sedentary forms. The bearing of the results on fishery problems is discussed. (A.).

**Cazalet M.** - Recherches bionomiques sur l'estuaire du Frémur (Limite des Côtes-du-Nord et de l'Ille-et-Vilaine) [*Investigationes bionomicae in aestuarium fluminis* Frémur]. 1 fig., Bull. Soc. Scient. Bretagne, XII, 205-237. Rennes (1936). **b - 481**

Etude de la flore et de la faune et leur distribution en rapport à la dessalure et aux conditions chimiques-physiques des eaux.

**Clarke G. L.** - Light Penetration in the Western North Atlantic and its Application to Biological Problems [*Lucis penetratio in Nord-Atlanticum occidentalem eiusque applicatio ad problemata biologica*]. 6 figs., 3 tabl., 14 pp., Cons. Expl. Mer, Rapp. & Pr.-Verb., CI, 3ème partie, 3, 3-14. Copenhague (1936). **b - 482**

Methods. Comparative transparency of different types of Atlantic Water. Reflection and absorption at the surface. Rate at which submarine light becomes diffuse. Diurnal vertical migration of zooplankton. The metabolism of Diatoms. The depth at which Fish can see.

**Dakin W. J. & Colefax A. N.** - Observations on the seasonal Changes in Temperature, Salinity, Phosphates, and Nitrate Nitrogen and Oxygen of the Ocean Waters on the Continental Shelf off New South Wales and the Relationship to Plankton Production [*Observationes circa mutationes pro anni tempore temperaturae, salsedinis, phosphatorum, azoti nitrati atque oxygeni aquarum oceanicarum in contignatione continentali extra regionem* South Wales. *Agitur de correlatione cum productione planctonica*]. 1 pl., 11 figs., Proc. Linn. Soc. N. S. Wales, LX, 5/6, 303-314. Sidney (1935).

( — ) Sydney Univ. Reprints, ser. 13, III, 8. Sydney (1936). **b - 483**

This study concerns mainly the variations in nitrate and phosphate which, however, are not so extensive as in English seas. The nitrate N seems to be more sensitive to the consuming plankton and is at minimum during summer months, the phosphate is usually quickly regenerated in surface waters. Seasonal fluctuations during a period of 3 years are shown graphically.

**Drilhon A.** - Influence des variations de salinité sur la réserve alcaline du sang des Crustacés [*Influentia variationum salinitatis in reservam alcalinam sanguinis Crustaceorum*]. C. R. Soc. Biol., CXVIII, 770. Paris (1935). **b - 484**

La réserve alcaline du sang de *Carcinus maenas* augmente lorsque on le soumet progressivement à l'eau douce.

**Fox D. L., Marks G. W. & Austin F. O.** - The Habitat and Food Sea Mussel. The Survival Period of Adult Mussels in Sea Water of Various Concentrations [*De habitat alimentoque Ostrearum. De supraviventia in « Mytilus » in aqua marina, diversa concentratione*]. 1 fig., 3 tables, Bull. Scripps Instit. Oceanogr., Techn. Ser., IV, 1, 5-11. Berkeley, Ca. (1936). **b - 485**

Results of a series of laboratory experiments which were performed in an attempt to ascertain the survival time of *Mytilus californianus* in sea water of different salinities, from 0 to 60 ‰, 33.6 ‰ being about the average salinity of sea water at La Jolla. The various other factors which exercise an influence upon survival have also been dealt with.

**Galtsoff P. S.** - Factors Governing the Propagation of Oysters and other Marine Invertebrates [*Factores qui gubernant propagationem ostrearum aliorumque Invertebratorum marinorum*]. Proc. 5th Pacific Scient. Congress 1933, 5, 4119-4120. Univ. Toronto Press. Toronto (1934). **b - 486**

On the influence of physical and chemical factors, of which temperature and chemical stimulation by specific sexual substances are the most important ones. Temperature has a 2-fold effect on the oyster establishing a limit below which spawning is impossible and stimulating the discharge of sexual products. Simultaneous spawning of the members of the animal community is caused by chemical stimulation when the physical one is not sufficient.

**Gessner F.** - Untersuchungen über den Nährstoffgehalt und die Planktonproduktion in den Küstengewässern von Rovigno [*Investigationes in substantiam nutriticiam et productionem planctonicam aquarum litorearum Arupinensium*]. 4 Abb., Not. Ist. Biol. Rovigno, 20, 3-16. Jena (1936). **b - 487**

Untersuchungen über den Gehalt an Phosphaten, Nitraten und Kieselsäure der Küstengewässer Istriens. An zwei Stationen wurden in Vertikalabständen von 5 M. Wasserproben zur Zählung des Nannoplanktons mit Hilfe des Utermöhl-Mikroskops genommen. Die Hauptmenge des Planktons wurde von *Hillea* und Diatoméen gebildet. (Nach Vf.).

**Girault M.** - Influence des variations du milieu sur le fonctionnement du cœur des Crabes [*Influentia variationum medii ambientis in functionem cordis cancrorum*]. Ann. Physiol. et Physicochim. Biol., XI, 54-69. Paris (1935). **b - 488**

Différente tolérance du cœur de *Carcinus maenas* et de *Platycarcinus pagurus* aux variations du milieu. La concentration du liquide de perfusion du cœur suit les variations de concentration du milieu extérieur.

**Hamai I.** - On the Growth of the Shell of *Meretrix meretrix*, especially with regard to Periodicity of Growth relatively to the seasonal Variations in the Environment [*De accretione conchae speciei « Meretrix meretrix » praecipue pro accretionis periodicitate et relate ad ambientis variationes pro anni tempore*]. Sc. Rep. Tôhoku Imp. Univ., Ser. 4, IX, 4, 339-372. Sendai (1935). **b - 489**

A. has studied the relation between time and growth and the relative growth and its ratio. He has found that the natural growth can be expressed by the so called logistic curve of Robertson and that there are two growth periods, the spring-autumn period from February to August and the autumn-winter period from August to February. The influence of temperature and salinity has also been studied.

**Hamai I.** - A Study of one Case in which Different Environmental Conditions produce different Types of *Meretrix meretrix* [*Agitur de differentibus condicionibus ambientalibus quae producunt typos diversos speciei « Meretrix meretrix »*]. Sc. Rep. Tôhoku Imp. Univ., Ser. 4, X, 3, 485-498. Sendai (1935). **b - 490**

The round type has been found in a calm sea with a slightly muddy bottom and the elongated type on a sandy shore facing the open sea. Comparison of different habitats in several environmental conditions.

**Hayasaka I.** - On the Fatal Effect of Cold Weather upon certain Fishes of the Sea around the Islands of Hôko (the Pescadores Islands): A Palaeontological Point of View [*De effectu letali coeli frigidi in Pisces marinos circum insulas*

Hôko (*Insulae* Pescadores). *Ratio palaeontologica*]. Mem. Fac. Sc. a. Agricult. Taihoku Imp. Univ., XIII, 2, 5-12. Formosa (1934). **b - 491**

After a heavy fall of the temperature to about 10° C in January-February, specially after a duration of a few days, certain fishes died. A. draws the conclusion that the « fossilization of such free swimming animals as fishes could have resulted from certain physical causes accompanying the lowering of the atmospheric temperature ».

**Havinga B.** - De Veranderingen in den hydrographischen Toestand en in de Macrofauna van Zuiderzee en Ijselmeer gedurende de Jaren 1931-1935 [*Mutationes hydrographicae mutationesque macrofaunae regionis* Zuiderzee *regionisque* Ijselmeer, *A. 1931-35*]. Meded. v. de Zuiderzee-Comm., 4. Den Helder (1936). **b - 492**

**Hopkins A. E.** - Adaptation of the Feeding Mechanism of the Oyster (*Ostrea gigas*) to Changes in Salinity [*Adaptatio apparatus alimentaris speciei « Ostrea gigas » ad salsedinis variationibus*]. 11 figs., 1 table, Bull. Bur. Fish., XLVIII, 21, 345-364. Washington D. C. (1936). **b - 493**

Account of seven series of experiments with different and varying degrees of salinity in order to study the adaptation. Any significant change in salinity affects the activity of the gills and that of the adductor muscle. Rate of adaptation. Effects of different salinities.

**Isaac W. E.** - A Preliminary Study of the Water Loss of *Laminaria digitata* during intertidal Exposure [*Studium prius amissionis aquae speciei « Laminaria digitata » tempore aestuum maris*]. Ann. Bot., XLIX, 193, 109-117. London (1935). **b - 494**

Investigation undertaken on *Laminaria digitata* on the Gower coast, S. Wales. Records of losses of 19.3 30.7 %.

**Johnson S.** - On the Variation of Fishes in Relation to Environment. Preliminary Report [*De variationibus in Piscibus ex ambiente. Relatio prior*]. 5 figs., 26 pp., Berg. Mus. Årb., naturv. r., I, 4. Bergen (1936). **b - 495**

The investigations concern the variations in the number of vertebrae and fin-rays on *Spinachia* and *Gobius* with regard to temperature, salinity and oxygen content. In a special part are given the total variation found as well as localities and general distribution of the species examined. In a general discussion A. points out the complexity of the problems giving a critical analysis of other investigations, especially those of Schmidt, from which some general conclusions are drawn. A detailed account will be given later on.

**Joubin L.** - Cours d'océanographie biologique [*Lectiones de oceanographia biologica*]. Bull. Soc. Océanogr. France, XVI, 89, 1537-1546; 90, 1559-1568; 91, 1572-1582. Paris (1936). **b - 496**

Leçons du cours d'océanographie biologique professé par le Prof. Joubin, publié sous la rédaction du Prof. Germain, et qui représentent l'œuvre posthume du grand maître. Introduction. Considérations générales sur l'eau de mer et sa composition chimique. Le pH en biologie marine. Caractères physiques de l'eau de mer: Les mouvements de la mer, et les grandes courants océaniques. Le sol sous-marin: origine des sédiments. Les êtres vivants qui prennent part à sa constitution. Les dépôts littoraux d'origine organique. Les dépôts marins d'origine pélagique: les protistes, les foraminifères, la vase à Ptéropodes, les débris des Vertébrés. Les plantes et animaux à squelette silicieux et les dépôts sous-marins qu'ils produisent: les diatomées, les radiolaires, les éponges, les mollusques.

**Keys A. B. & Christensen E. H.** - Organic Substances in Solution in Sea Water [*Substantiae organicae in aqua marina solutae*]. Woods Hole Oceanogr. Instit., App., Rep. 1934, 22-23. Woods Hole, Mass. (1935). **b - 497**

Account of the studies continued during the summer 1934, on the distribution and possible place in the economy of the sea of the organic substances in solution in sea water, with special regard to the following problems: 1) What is the concentration of dissolved organic carbon and nitrogen in various sea waters from various depths ? 2) How susceptible are these substances to degradation by bacteria ? 3) What is the extent of occurrence of free ammonia in sea water and its level of concentration ?

**Keys A. B., Christensen E. H. & Krogh A.** - The Organic Metabolism of Sea-water with Special Reference to the Ultimate Food Cycle in the Sea [*De organico metabolismo aquae marinae, praecipue quoad pertinet ad cyclum alimentationis*]. 5 figs., 7 tabl., Journ. Mar. Biol. Assoc., XX, 2, 181-196. Plymouth (1935). **b - 498**

Studies are reported on the behaviour of stored sea-water with regard to oxygen, ammonia, and bacteria content in relation to the conditions of storage and to the effect of various filtration procedures. It appears that in the sea there is generally an equilibrium such that only minimal bacterial activity at the expense of dissolved organic matter may take place, but that very small changes in the system may make available for bacterial metabolism perhaps 10 or 15 per cent of the total dissolved organic matter. Bacterial activity in sea-water is very sensitive to temperature and to alcalinity and relatively independent of ammonia, nitrate or nitrite and also oxygen above half-saturation. Lack of phosphate may on occasion be a limiting factor.

**Lampe H.** - Die Temperatureinstellung des Stoffgewinns bei Meeresalgen als plasmatische Anpassung [*Adaptatio ex temperatura assimilationis Algarum marinarum ac adaptatio plasmatica*]. 14 Abb., Protoplasma, XXIII, 534-578. Berlin (1935). **b - 499**

Bericht über Versuche mit *Fucus serratus*, *Nemalion lubricum*, *Chorda filum* und *Laminaria saccharina* während des Sommers und *Fucus serratus*, *F. vesiculosus*, *Porphyra hiemalis*, *Laminaria digitata*, *Phyllophora Brodioei* und *Delesseria sanguinea* im Winter. Bestimmung der Atmungsintensität und Bestimmung des Verhältnisses: Assimilation, Respiration unter dem Einfluss verschiedener Temperaturen; Einstellung der Atmung nach Sommer- und Wintertemperaturen, eurytherme und stenotherme Typen. Kritische Betrachtung der Theorie von Kniep-Harder.

**Ljubitzky A. I.** - Zur Erforschung des Temperatureffekts in der Morphogenese. II. Einfluss der Temperatur auf die Geschwindigkeit und Wachstum des Embryos von *Salmo trutta* L. m. *fario* [*Studium circa effectum temperaturae in morphogenesim. II. Temperaturae influentia in velocitatem et accretionem embryonis speciei « Salmo trutta »*]. 1 Taf., 3 Abb., Zool. Jahrb. Abt. Allg. Zool. u. Physiol., LIV, 4, 405-422. Jena (1935). **b - 500**

Die Dauer von 12 verschiedenen embryonalen Stadien von dem ungeteilten Ei bis zu der Bildung von der Blastula wurde bei 3,4; 5,0; 7,6 und 13,2° C bestimmt. Eine erhöhte Temperatur beschleunigt die Entwicklung, der Effekt aber wechselt sehr mit den verschiedenen Stadien. Die Perioden langsamen Wachstums mit einer folgenden grösseren Differenzierung zeigen einen hohen Temperaturkoeffizienten auf, während beim schnelleren Wachstum die Temperaturkoeffizienten niedriger sind.

**Mac Ginitie G. E.** - Ecological Aspects of a California Marine Estuary [*De oecologia alicuius aestuarii marini Californiensis*]. 21 figs., Amer.

Midland Natur., XVI, 5, 629-765. Notre Dame, Ind. (1935). **b - 501**

Results of 8 years' study of Elkhorn Slough, a tributary of Monterey Bay containing extensive beds of *Zostera* and *Enteromorpha*. Hydrographical and hydrological conditions, salinity, oxygen supply, light conditions. 207 species are studied with regard to occurrence, parasites and food. Evidence of migration from ocean to land taking place mainly through the surf and not through estuaries. Preparation of fossil beds. Necessity of studying the life history of the more import members of the associations, e. g. that of *Callianassa californiensis*.

**Maxia C.** - Studi sulla idropermeabilità cellulare, I, II, III [*Studia de hydropermeabilitate cellulari*]. 8 fig., Scritti Biol., IX, 31-41; 43-55; 57-65. Cagliari (1935). **b - 502**

Differente risultato ottenuto immergendo in acqua di mare diluita uova di *Paracentrotus lividus*, di *Artemia salina* e *Cyprinodon calaritanus*. L'imbibizione è, in questi ultimi due casi, più lenta, più debole ed irregolare, in rapporto alla resistenza di queste specie alle variazioni della salinità.

**Montfort C.** - Zeitphasen der Temperatur-Einstellung und jahreszeitliche Umstellungen bei Meeresalgen [*De gradibus quoad adaptationem temperaturae deque mutationibus pro anni tempore Algarum marinarum*]. 8 Abb., Ber. Dtsch. Bot. Ges., LIII, 7, 651-674. Berlin (1935). **b - 503**

Untersuchungen über *Fucus*, *Chondrus*, *Phyllitis*, *Porphyra*, *Ectocarpus*, *Ulva* und *Pelvetia*. Einfluss der Steigerung und Erniedrigung der Temperatur. Vergleich verschiedener ökologischer Verhältnisse in Bezug auf die Produktion. Atmung und Anpassung nach veränderten Verhältnissen.

**Moorhouse F. W.** - The Cyclone of 1934 and its Effect on Low Isles, with Special Observations on Porites [*De cyclone A. 1934 eiusque effectu in* Low Isles. *Agitur particulatim observationum circa Porites*]. 4 pls., Rep. Great. Barrier Reef Comm., IV, Part 2, 37-44. Brisbane (1936). **b - 504**

The cyclone. Immediate and later results. Some observations on Porites (*Porites*, *Montipora*, *Hippopus*, *Acropora*, *Favia*, *Fungia*, *Polyphyllia*, *Herpetholitha* etc.).

**Portier P.** - Edification et évolution de la matière vivante dans la mer [*Aedificatio et evolutio substantiae viventis in mari*]. 3 fig., Rev. Scient., LXXIV, 3, 67-73. Paris (1936). **b - 505**

Analyse chimique de l'eau de mer. Végétation des algues dans les différentes couches, leur assimilation chlorophyllienne. L'importance de l'insolation pour la vie dans la mer. Le réapprovisionnement des sels nutritifs; rôle des bactéries et rôle des courants; quelques exemples.

**Ranson G.** - Le rôle de la matière organique dissoute dans l'eau et les Théories de Pütter [*Momentum substantiae organicae solutae in aquis atque theoriae ex* Pütter]. Bull. Mus. Nat. Hist. Natur., Sér. 2, VII, 6, 359-366; VIII, 2, 160-172. Paris (1935-1936). **b - 506**

Revue synthétique des travaux sur l'utilisation des substances dissoutes dans l'eau, par les Protozoaires, Crustacés, Mollusques et Poissons. Pütter a fait des expériences très complètes sur les échanges nutritifs chez *Suberites domuncula* dont il conclut que les Eponges sont réduites à se procurer une nourriture dissoute. Pour l'absorption n'est pas indispensable un organe spécial: la mer forme la lymphe dont les organismes marins vivent, les substances en solution dans l'eau sont absorbées quelque fois par l'intestin mais, en général, par la surface du corps et plus particulièrement par les branchies. Les organismes planctoniques qui passent dans l'intestin ne jouent qu'un rôle secondaire dans la nutrition. La matière organique dissoute provient, d'après Pütter, de l'activité des Algues et des Bactéries. Critique des théories de Fischer.

**Runnström S.** - Die Anpassung der Fortpflanzung und Entwicklung mariner Tiere an die Temperaturverhältnisse verschiedener Verbreitungsgebiete [*De adaptatione reproductionis deque accretione animalium marinorum, differentibus temperaturae condicionibus regionum distributionis*]. Tab., Berg. Mus. Årb., naturv. r., I, 3, 1-36. Bergen (1936). **b - 507**

Die Untersuchungen umfassen arktisch-boreale, boreale und mediterran-boreale Formen. Auf Grund seiner eigenen Untersuchungen und derjenigen anderer Forscher schliesst Vf. als allgemeine Regel, dass die meisten Arten in ihrer Fortpflanzung und Entwicklung an die Temperaturverhältnisse eines gewissen Gebietes angepasst sind. Diese propagativ stenothermen Arten können in den Nachbarregionen nur so weit hervordrängen bis ein Grenzgebiet erreicht wird, wo Fortpflanzungsbedingungen nicht mehr vorhanden sind. Durch Mutation und Neukombination von Genen entstehen neue Biotypen, welche eine Anpassung an neue Lokalitäten zeigen.

**Russell F. S.** - Submarine Illumination in Relation to Animal Life [*Lux submarina pro vita Animalium*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., CI, $2^{\text{ème}}$ partie, 1, 3-8. Copenhague (1936). **b - 508**

Zooplancton: Light and vertical distribution. Physiological effects of light on plankton animals. Light in relation to zooplancton, production and distribution. Bottom fauna: Light and the zonation of sedentary and bottom animals. Physiological effects of light on bottom animals. Fishes: Light discrimination. Physiological effects of light and colour change.

**Sato Syôiti** - Ciliary Movement of the Gill of an Oyster *Ostrea gigas*, in Relation to Temperature [*Motus ciliares branchiarum speciei « Ostrea gigas » pro temperatura*]. (In Jap.; Engl. Rés.). 1 fig., Bull. Jap. Soc. Scient. Fish., IV, 6, 409-410. Tokyo (1936). **b - 509**

The mean crawling velocity of ciliary movement increases as the t° goes higher from 1,2° C. to 29,2° C.

**Schnakenbeck W.** - Die Nahrungsstoffe des Meeres und die Hauptfischereigebiete [*Substantiae alimentares maris et regiones praecipuae piscatoriae*]. Fischmarkt, IV, 7, 190-193. Cuxhaven (1936). **b - 510**

Über die Gesetze des Stoffwechsels im Meere; die Hauptfischereien mit den grössten Erträgen im allgemeinen in den gemässigten und kalten Zonen; der Planktongehalt und seine Abhängigkeit vom Phosphor- und Stickstoffgehalt.

**Seiwell H. R.** - The Annual Organic Production and Nutrient Phosphorous Requirement in the Tropical Western North Atlantic [*De phosphoro pro alimento in regione tropicali occidentali oceani Atlantici Nordici*]. 4 tabl., 1 diagr., Journ. Cons. Expl. Mer, X, 1, 20-32. Copenhague (1935). **b - 511**

Theoretical estimation of the annual production of organic matter in the Tropical Western North Atlantic. Phosphorous requirements for organic production in the Tropical Western North Atlantic: 1) Carbon and phosphorous content of marine plankton. 2) Consumption of dissolved phosphorous. 3) Sources of supply of dissolved phosphorous to the layer of photosynthesis in the region of investigation. Comparison of productiveness of the Tropical Western North Atlantic with other areas. 1) Comparison with daily production in the coastal waters of Northern Europe during diatom flowering. 2) Comparison with annual production in coastal seas of Northern Europe.

**Sharp J. G.** - Glycogenolysis in Fish-liver at low Temperatures [*De glycogenolysi in hepate Piscium, demissis temperaturis*]. Biochem. Journ., XXIX, 854-859. London (1935). **b - 512**

**Teissier G.** - Croissance comparée des formes locales d'une même espèce [*De accretione comparata formarum eiusdem speciei eodem loco*]. Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 627-634. Bruxelles (1936). **b - 513**

L'A. se rapporte aux recherches exécutées par divers auteurs sur *Littorina sitchana*, *Gadus aeglefinus*, *Homarus americanus*, *Carassius auratus* et *Haliotis gigantea* pour montrer que les méthodes actuelles d'étude de la croissance relative permettent d'analyser la signification des différences qui séparent si souvent les formes locales ou les variétés d'une même espèce.

**Templeman W.** - The Influence of Temperature, Salinity, Light and Food Conditions on the Survival and Growth of the Larvae of the Lobster (*Homarus americanus*) [*De influentia temperaturae, salsedinis, lucis, condicionum nutricationis in surviventiam et accretionem larvarum speciei « Homarus americanus »*]. Tabl., 1 graph., Journ. Biol. Bd. Canada, II, 5, 485-497. Toronto (1936). **b - 514**

The influence of every factor is examined experimentally and the results are expressed in graphs and tables. The larval life is studied until the attainment of the fourth stage.

**Thompson T. G., Mc Ewen G. F. & Van Cleve R.** - Hydrographic Sections and Calculated Currents in the Gulf of Alaska 1929 [*Investigationes hydrographicae in currentias sinus Alaskiani A. 1929*]. 8 figs., 9 tabl., Rep. Int. Fish. Comm., 10, 1-32. Seattle, Wash. (1936). **b - 515**

These investigations have been undertaken principally with a view to supply information for the study of the drift of halibut eggs and larvae. Methods of collection, analysis, and calculation. Ocean cape section, Cape Cleare section, Cape Chiniak section.

**Zenkewitch L. A.** - On Growth Rate in Different Seasons of the Year [*Accretionis velocitas, differentibus anni temporibus perdurantibus*]. (In Russ., Engl. Rés.). 1 graph., Uchen. zap. Mosk. gosud. univ., Biol., IV, 1, 135-138. Moskva (1936). **b - 516**

Referring to the growth investigations undertaken by Coe on *Balanus tintinnabulum* in Californian waters, A. has calculated the average daily increase in size of this species during the first weeks of life. Of factors concerned A. considers the sun radiation as the most important one.

**Scottish Marine Biological Association** - Shore Ecology [*De oecologia orae maritimae*]. Scott. Mar. Biol. Ass., Ann. Rep., 1935-36, 10-16. Glasgow (1936). **b - 517**

Report on observations undertaken on the copepod genera *Leptopsyllus* and *Paramesochra* on the rate of growth and variation in the spat-falls of *Tellina tenuis*, and on *Ophelia cluthensis*. Some changes in the fauna; notes on 18 species. Algal ecology: 8 new records.

## Geographica distributio animalium.

**Aikawa H.** - The Planktological Properties of the Principal Sea Areas Surrounding Japan [*Peculiaritates planctonicae praecipuarum zonarum marinarum quae Japoniam circumdant*]. (In Jap., Engl. Synops.). 1 map, 8 tabls., Bull. Jap. Soc. Scient. Fish., V, 1, 33-41. Tokyo (1936). **b - 518**

Author describes the oceanic and the neritic groups of the plankton of the waters surrounding Japan, with special reference to the Kurosio group, the Oyasio group, the Tusima current group, the Liman group, the Yellow Sea group, being the main oceanic groups stable both in composition and quantity throughout the year; the neretic groups, on the contrary, fluctuate markedly in composition and in quantity, as the seasonal succession of diatoms and other organisms takes place quickly.

**Angelini G.** - Distribuzione geografica dei *Clypeasteridae* fossili e viventi [*Clypeasteridae fossiles et viventes. Quaestio de distributione geographica*]. Atti Soc. Tosc. Sc. Natur., XLV, 140-152. Pisa (1935). **b - 519**

Con lo studio della distribuzione geografica dei *Clypeasteridae* fossili e viventi si dimostra che questi hanno la loro area di distribuzione nella *Tethys*; solo poche specie migrano fuori di questa, ma sempre in regioni finitime, quindi in mari caldi o temperati, caldi. Questa distribuzione coincide in linea generale con quelle delle Rudiste, Nummuliti, Lepidocicline e Coralli costruttori (A).

**Askelsson J.** - Some Remarks on the Distribution of the Species *Zirphaea crispata* L. and *Purpura lapillus* L. on the North-Coast of Iceland [*Observationes circa distributionem specierum « Zirphaea crispata » et « Purpura lapillus » in litoribus septentrionalibus Islandiae*]. 3 figs., Vidensk. Medd., XCIX, 65-72. København (1935-36). **b - 520**

Funds of both species recorded since 1772. Two possibilities discussed as to their occurrence: that their presence may have been overlooked or, more probably, that it is to be sought in the change of temperature that has taken place in the Icelandic waters during the last ten or twenty years.

**Athanassopoulos G.** - Sur un centre de concentration et de reproduction des poissons de mer dans les eaux helléniques [*De quodam centro pro concentratione et reproductione Piscium in aquis Hellenicis*]. Bull. Inst. Océanogr., 693, 1-5. Monaco (1936). **b - 521**

L'A. illustre la configuration bizarre des côtes helléniques, et surtout des golfes de Corinthe et de Patras, centres de concentration et en même temps de reproduction très importants des Gadidés et des Pleuronectidés et d'un macroure assez précieux, le Pénée. Ces observations jettent une certaine lumière sur la connaissance de la distribution de la faune dans les détroits marins en général.

**Birula A.** - Ueber das Vorkommen der Chironomiden-Gattung *Clunio* im Kara-Busen (Südküste des Kara- Meeres) [*De genere chironomide « Clunio » in Sinu Karensi (in litoribus meridionalibus Maris Karensis)*]. 1 Abb., Int. Rev. ges. Hydrobiol. u. Hydrogr., XXXI, 1934, 436-439. Akad. Verlagsg. Leipzig (1935). **b - 522**

Beschreibung der Larve von *Clunio*, welche im Mageninhalt einiger Fische (*Coregonus lavaretus pidschian* Gmel.) aus dem in dem Kara-Busen mündenden Flusse aufgefunden worden ist.

**Broch H.** - Some Zoogeographical Problems of the Northern Pacific [*Problemata quaedam zoogeographica Oceani Pacifici septentr.*]. Science, LXXXIII, 2144, 101-103. New York (1936). **b - 523**

A. touches upon several problems of differences and relationships between faunas of different parts of the Pacific and different parts of the Atlantic as well as between the northern Pacific and the northern Atlantic quoting studies recently mady by Ekman, Gurjanova and Berg with special reference to the question of adaptation and morphologic changes of the species.

**Bruun A.** - Sur la distribution de quelques Poissons océaniques d'après les Expéditions Danoises [*De distributione aliquorum Piscium oceani-*

*corum ex Danica expeditione provenientium*]. 6 fig., Bull. Inst. Océanogr. (Dana Oceanogr. Coll. N. 9), 700, 1-16. Monaco (1936). **b - 524**

L'A. a démontré que, bien que les poissons océaniques aient une vaste distribution, leurs limites géographiques peuvent être aussi nettement définies que celles des animaux terrestres. Etudes sur la distribution de *Anguilla anguilla*, *Conger conger*, *Synaphobranchus pinnatus*, *Myctophum glaciale* et *Paralepis sphyraenoides*.

**Chauchard P.** - *Oncidiella celtica* Cuv. aux îles Chausey [*Oncidiella celtica » in insulis* Chausey *reperta*]. 2 fig., Bull. Lab. Marit. Dinard, 16, 30-32. Rennes (1936). **b - 525**

Parmi les *Fucus lutarius*, les autres Algues et les Phanérogames halophiles l'A. a constaté pour la première fois ici la présence de *Oncidiella celtica*.

**Colombini N.** - Distribuzione geografica delle *Scutellidae* Gray fossili e viventi [*Distributio geographica Scutellidarum fossilium et recentium*]. 2 fig., Atti Soc. Tosc. Sc. Natur., XLV, 254-270. Pisa (1935). **b - 526**

Dallo studio della distribuzione geografica delle *Scutellidae* Gray (secondo la classificazione di Lambert e Thiery) appare come, attraverso i varii periodi del Cenozoico fino all'attualità, alcuni gruppi siano ubiquisiti, altri mostrino una localizzazione in determinate provincie e in particolari regioni e altri infine presentino tendenza a spostarsi variando o ampliando il loro habitat.

**Davy de Virville Ad.** - Recherches écologiques sur la flore des flaques du littoral de l'Océan atlantique et de la Manche [*Investigationes oecologicae in floram puteorum praeter litora Oceani Atlantici et Freti Britannici*]. 13 fig., 19 pl., Rev. Gén. Bot., XLVI, 705-721; XLVII, 26-43, 96-114, 160-177, 230-243, 308-323. Paris (1934-1935). **b - 527**

Etude physique-chimique de l'eau de mer en surface, au large et sur le littoral. Classification des flaques marines du littoral selon leur flore et les variations quotidiennes de température et d'alcalinité. Différences entre les flaques peuplées d'Algues vertes, les flaques à Algues calcaires, et celles à Floridées. Les variations physico-chimiques n'ont pas plus d'action sur la distribution des Algues marines que sur celle des animaux, elles en sont la conséquence et non point la cause.

**Demel K.** - Studja nad fauna, denna i jej rozsiedleniem w polskich wodach Bałtyku [*De fauna benthonica eiusque distributione per aquas Polonas maris Baltici*]. (En polon.; rés. franç.) 21 tab. Arch. Hydrobiol. & Ichthyol., IX, 3/4, 239-309. (Trav. Stat. Marit. Hel). Suwalki (1935). **b - 528**

Faune benthonique des Invertébrés et sa répartition dans les eaux côtières polonaises de la Baltique avec référence spéciale au groupement éthologique des espèces en associations naturelles et aux conditions d'existence des espèces les plus typiques, par rapport à leur répartition locale. L'A. divise les associations en deux groupes principaux: associations des eaux profondes composées exclusivement d'espèces sténothermes propres aux eaux froides et associations des eaux côtières peu profondes et bien éclairées, composées de préférence d'espèces eurythermes. Limites de diffusion de ces deux types d'associations et caractères géographiques des espèces considérées.

**Desbrosses P.** - Echouage d'un *Tetrodon lagocephalus* L. près de Quiberon et remarques sur la présence de cette espèce et de *Balistes capriscus* L. au Nord du 44° L. N. [*De specie « Tetrodon lagocephalus » reperta in arena apud* Quiberon. *Observationes circa distributionem huius speciei specieique « Balistes capriscus » in regione magis nordica quam 44, L. N.*]. 1 pl., Bull. Soc. Zool. France, LX, 43-48. Paris (1935). **b - 529**

Distribution géographique de ce Plectognathe le long des côtes de l'Afrique tropicale atlantique. Les captures au nord de l'Atlantique sont en rapport aux transgressions atlantiques vers le Nord des eaux chaudes et salées.

**Dons C.** - Zoologische Notizen. XXIX. Die Verbreitung von Steinkorallen in West-Finnmark [*Notitiae zoologicae XXIX: Distributio coralliorum in regione* West-Finnmark (*Norvegia*)]. 1 Abb., Kgl. Norsk. Vidensk. Selsk. Forh., VIII, 18, 57-60. Trondheim (1936). **b - 530**

Während des Sommers 1934 hat Vf. bei Øyvik im Stjernsund ein neues lebendiges Korallenriff von *Lophohelia* entdeckt, das hier beschrieben wird. Verzeichnis anderer in West-Finnmark vorbefindlichen Korallenriffe.

**Eggert B.** - Beitrag zur Systematik, Biologie und geographischen Verbreitung der *Periophthalminae* [*Contributio in systematicam, biologiam et distributionem geographicam Periophthalminarum*]. 16 Abb., 9 Pl., Zool. Jahrb., Syst., Ökol. u. Geogr. Tiere, LXVII, 29-116. Jena (1935). **b - 531**

Erläuterung der verschiedenen Arten und Rassen. Habitat mit besonderer Berücksichtigung der *P. chrysospilos* und *P. schlosseri*. Phylogenetische Untersuchungen.

**Emerson Warren A.** - An ecological Study of the Sea Mussel (*Mytilus edulis* Linn.) [*Studium oecologicum speciei « Mytilus edulis »*]. 1 graph. fig., 1 table, Journ. Biol. Bd. Canada, II, 1, 89-94. Toronto (1936). **b - 532**

The distribution of the sea mussel beds of the Passamaquoddy bay area is almost exclusively intertidal. The experiments herein reported show that mussels grow most rapidly when constantly submerged. Their general absence below the low tide level, therefore, is attributed to the particular abundance in this region of the predatory fauna. (A.).

**Fage L. & Monod T.** - La faune marine du Jameo de Agua, lac souterrain de l'île Lanzarote (Canaries). Biospeleologica LXIII [*Fauna marina in* Jameo de Agua *lacu subterraneo insulae* Lanzarote (Canaries). *Biospeleologica XIII*]. 9 figs., Arch. Zool. Expér. et Gén., LXXXVIII, 2, 97-113. Paris (1936). **b - 533**

Exploration zoologique de ce lac souterrain en communication avec la mer. Composition de la faune et rôle de la salinité pour l'acclimatation du *Munidopsis polymorpha* et du *Parhyale fasciger*; adaptation de *Heteromysis Cotti*.

**Fischer - Piette E.** - Quelques remarques bionomiques sur la côte basque française et espagnole [*Notae quaedam bionomicae de litoribus vasconicis, francogallicis et hispanicis*]. 1 fig., Bull. Lab. Marit. Saint-Servan, XIV, 1-14. Rennes (1935). **b - 534**

Observations portées sur 7 stations françaises et espagnoles. Lichens, Algues, Coelentérés, Echinodermes, Annélides, Crustacés, Cirripèdes, Mollusques. Répartition de ces espèces dans le sens vertical.

**Fischer - Piette E.** - Faune et flore marines de la région malouine en 1935 [*Fauna et flora marinae in insulis* Falkland *A. 1935*]. Bull. Lab. Marit. Dinard, XV, 9-17. Rennes (1936). **b - 535**

Algues, Phanérogames, Spongiaires, Coelentérés, Crustacés, Mollusques, Lamellibranches et Céphalopodes. Tuniciers.

**Fischer - Piette E.** - Systématique et Biogéographie. Les Patelles d'Europe et d'Afrique du Nord [*Systematica et biogeographia. Patellae europaeae et ad Africam Nordicam pertinentes*]. 26 fig., 4 pl., Journ. Conchyl., LXXXIX, 1-66. Paris (1935). **b - 536**

**Fish C. J.** - The Biology of *Pseudocalanus minutus* in the Gulf of Maine and Bay of Fundy [*De biologia speciei « Pseudocalanus minutus » in Sinu* Maine *et Baja* Fundy]. 9 figs., 7 tabl., Biol. Bull., LXX, 2, 193-216. Lancaster, Pa. (1936). **b - 537**

Production and dispersal of eggs and larvae of *P. minutus*; regional abundance of the stock. Tables showing average numbers of ova, nauplius and Copepodite stages per minute of towing for the period April-July, 1932; composition of the population in August and September; occurrence of eggs and of nauplius stages. Mortality in developing larvae.

**Fish C. J.** - The Biology of *Oithona similis* in the Gulf of Maine and Bay of Fundy [*De biologia speciei « Oithona similis » in Sinu* Maine *et Baja* Fundy]. 9 figs., 4 tabl., Biol. Bull., LXXI, 1, 168-187. Lancaster, Pa (1936). **b - 538**

Regional distribution of the adult stock. Production and dispersal of eggs and larvae. Relative numerical strength of *O. similis* in the zoöplankton population.

**Gurjanova E.** - The Zoogeography of Kara Sea (Contribution to the Fauna of *Amphipoda* and *Isopoda* of the Northern Part of the Kara Sea) [*De zoogeographia maris Karensis* (*Contributio in faunam Amphipodorum et Isopodorum in regione septentrionali Maris Karensis*)]. (In Russ.; Engl. Rés.). 6 maps, Bull. Acad. Sc. U. S. S. R., 2/3, 566-598. Moscou (1936). **b - 539**

A. distinguishes four different zones: depths from 300 to 500 m. containing Rhizopoda; 150-300 m., with common arctic and high arctic species; 50- 120 m., with common circumpolar arctic forms; 40-20, m. with the Kara Sea endemics, eastern shallow- water forms and several West Greenland forms. Some conclusions are drawn as to the origin and penetration of these forms.

**Gustafson G.** - The Distribution of *Phoronis mülleri* De Selys Longchamps on the Swedish West Coast [*Distributio speciei « Phoronis mülleri » in litoribus Suetiis occidentalibus*]. 1 table, Ark. f. Zool., XXVIII B, H. 1, 1, 1-6. Stockholm (1935). **b - 540**

These investigations carried out in the Gullmar Fjord and some other fiords as well as on the coast plateau off these fjords show that *Phoronis mülleri* is very common on the Swedish west coast. Habitat and accompanying faunas.

**Hatai K.** - A Note on the Distribution of certain Species of Marine Invertebrates [*Nota de distributione aliquarum specierum ex Invertebratis marinis*]. Bull. Biogeogr. Soc. Jap., VI, 123-141. Tokyo (1936). **b - 541**

Distribution, migration and phylogeny of Tertiary and recent Invertebrates.

**Hiro F.** - On the Geographical Distribution of *Ibla*, a Littoral Cirriped [« *Ibla* », *cirripedus litoreus. Quaestio de eius distributione geographica*]. 1 map, Bull. Biogeogr. Soc. Jap., VI, 22, 215-220. (Contr. Seto Mar. Biol. Lab. No. 53). Tokyo (1936). **b - 542**

*Ibla* is a remarkable pedunculate represented by three forms, occurring in the Indopacific region. The distribution of *Ibla* is closely correlated with the direction of ocean currents. Any general statement as to the geographical range of each form cannot be given, unless the occurrence is recorded more than twice from the same locality.

**Jakubova L.** - Concerning the Division into Districts of the Black Sea on the Basis of Composition and Distribution of Its Benthos Fauna (In Russ., Engl. Rés.) [*De partitione in singulas regiones Ponti Euxini ex compositione et distributione eius faunae benthonicae*]. 1 fig., C. R. Acad. Sc. URSS, I, 261-267. Léningrad (1935). **b - 543**

The coastal zone of the Black Sea may be divided into three principal areas of distribution of benthal fauna: the eastern half of the sea forming the 1st district, its south-western portion, the 2nd district, and its north-western part, the 3rd district. A comparison of the benthal fauna of the three above districts permits to conclude from data available that the eastern half of the sea with its benthal fauna has some strongly pronounced characteristic features typical of the present Black Sea, while the fauna of the other two districts, due to the influence of special physico-geographical conditions, offers a considerable deviation.

**Jao Chin-Chih** - New *Rhodophyceae* from Woods Hole [*Novae Rhodophyceae ad regionem* Woods Hole *pertinentes*]. 4 pls., Bull. Torrey Bot. Club, LXIII, 5, 237-249. New York (1936). **b - 544**

Description of about 14 species of marine red Algae new for Nord America, from which *Erythropeltis discigera*, n. sp., *Colaconema americana* n. sp., *Acrochaetium* with a new variety and *Cruoriopsis Ensisae* n. sp.

**Kanamaru T.** - Notes on Some Cases of Artificial Propagation of Molluscs [*Notae de propagatione artificiali Molluscorum*]. (In Jap.). 4 figs., Venus, V, 2/3, 145-149. Kyoto (1935). **b - 545**

Author presumes that the mussel *Mytilus edulis* living on the littoral zone of Kôbe harbour has been introduced there by ships.

**Koepcke H. W.** - Ein zweiter Fund von *Mesoplodon bidens* (Sow.) an der deutschen Ostseeküste [*De specie « Mesoplodon bidens » in litoribus Maris Baltici iterum reperta*]. Zool. Anz., CXIII, 5/6, 157-158. Leipzig (1936). **b - 546**

Von dieser Art sind früher nur fünf Exemplare in der Ostsee gefunden. Das hier beschriebene Tier wurde am 25. Juni 1935 am Strande bei Swantuss auf der Insel Wollin aufgefunden und getötet.

**Koller G.** - *Crangon crangon* und *Leander adspersus*. Eine vergleichend- ökologische Studie [*Species « Crangon crangon » et « Leander adspersus ». Studium oecologicum comparativum*]. Abh., Tung-Chi, 11, 238. Shanghai (1936). **b - 547**

An Hand mehrerer Tatsachen und Abbildungen wird die Uebereinstimmung zwischen zwei verschiedenen Tieren mit ihren respektiven Lebensräumen gezeigt.

**Komai T.** - On Another Form of *Stephanoscyphus* found in the Waters of Japan [*De altera specie generis « Stephanoscyphus » reperta in aquis Japonicis*]. Mem. Coll. Sc., Kyoto Imp. Univ., Ser. B., XI, 3, 175-183. (Contr. Seto Mar. Biol. Lab. No. 48). Kyoto (1936). **b - 548**

These forms discovered in rather deep regions of the Japan Sea and Sagami Bay are found to be isolated thecae of *Stephanoscyphus* without a coating of sponge. As these forms are different from those occurring at Seto a new tentative classification is made with two new species.

**Kunz H.** - Zur Oekologie der Copepoden Schleswig-Holsteins und der Kieler Bucht [*De oecologia Copepodorum ad* Schleswig-Holstein *et ad bajam* Kiel *pertinentium*]. 5 Taf., 5 Abb., Schr. Naturw. Ver. Schleswig-Holstein, XXI, 1, 84-127. Kiel (1935). **b - 549**

Verzeichnis von 145 Arten von der Kieler Bucht und 46 Arten von Schleswig–Holstein. Ökologie und Verteilung.

**Lackey J. B.** - Occurrence and Distribution of the Marine Protozoan Spezies in the Woods Hole Area [*Protozoa marina in area regionis* Woods Hole. *Quaestio de praesentia et distributione*]. 3 tabl., Biol. Bull., LXX, 2, 264-278. Lancaster, Pa. (1936). **b - 550**

List of species (261 genera and species). Seasonal succession. Nature and accumulation of sea floor population. The rôle of the *Protozoa*.

**Lami R.** - Une nouvelle station sud portugaise d'*Oncidiella celtica* Cuv. [*Statio nova meridionalis Lusitana speciei* «*Oncidiella celtica*»]. Bull. Lab. Marit. Saint-Servan, XIV, 15-16. Rennes (1935). **b - 551**

Présence de ce Mollusque à Lagos, en Algarve.

**Lamy E.** - Le *Cypraea moneta* L. existe-t-il sur la côte occidentale d'Afrique ? [*Num species* «*Cypraea moneta*» *invenitur in litoribus occidentalibus Africae ?*]. Bull. Mus. Nat. Hist. Natur., Sér. 2, VIII, 3, 263-266. Paris (1936). **b - 552**

Différentes opinions de plusieurs savants sur la présence et les migrations de *Cypraea moneta* et d'autres espèces de Mollusques. Possibilité d'un transport des larves par les courants provenant du Cap de bonne Espérance.

**Lang K.** - Undersökningar över Öresund. Untersuchungen aus dem Öresund. XVIII. *Ameira arenicola* n. sp. (*Copepoda Harpacticoida*) nebst Bemerkungen über die Gattung *Ameira* und ihr nahestehende Gattungen [*Investigationes in regione* Oeresund *peractae. XVIII.* «*Ameira arenicola*» *n. sp. cum observationibus de genere* «*Ameira*» *generibusque affinibus*]. (Schwed. Titel, Dtsch. Text). 13 Abb., Lunds Univ. Årsskr., N. F., Avd. 2, XXXI, 2, 12 S. (Kgl. Fysiogr. Sällsk. Handl., N. F., XLVI, 2). Lund (1935). **b - 553**

Beschreibung von *Ameira arenicola* n. sp. Bemerkungen über die Gattungen *Ameira, Nitocra, Nitrocrameira, Parameira, Sarsameira, Pseudameira* und *Ameiropsis*, Bestimmungstabellen.

**Lang K.** - Undersökningar över Öresund. Untersuchungen aus dem Öresund. XX. Harpacticiden aus dem Öresund [*Investigationes in regione* Oeresund *peractae. XX. Harpacticidae in* Oeresund]. 148 Abb., Lunds Univ. Årsskr. N. F. Avd. 2, XXXI, 8, 52 S. (Kgl. Fysiogr. Sällsk. Handl., N. F., XLVI, 8). Lund (1936). **b - 554**

Beschreibung von etwa 60 Arten mit Angabe von Synonymen.

**Lang K.** - Undersökningar över Öresund. Untersuchungen aus dem Öresund. XXI. Einige Kleintiere aus dem Öresund [*Investigationes in* Oeresund. XXI. *Parva organisma ad* Oeresund *pertinentia*]. 11 Abb., Lunds Univ. Årsskr. N. F. Avd. 2, XXXI, 10, 8 S. (Kgl. Fysiogr. Sällsk. Handl., N. F., XLVI, 10). Lund (1936). **b - 555**

*Turbellaria*, Rotatorien und Gastrotrichen, *Kinorhyncha, Nematodes, Crustacea* und *Halacaridae*.

**Leloup E.** - Les Siphonophores de la rade de Villefranche-Sur-Mer (Alpes Maritimes, France) [*De Siphonophoris in rada* Villefranche-Sur-Mer (*in Alpibus maritimis, Gallia*)]. Bull. Mus. Sc. Hist. Natur. Belgique, XI, 31, 1-12. Bruxelles (1936). **b - 556**

Liste et description de 29 espèces recueillies dans le plancton de la rade par l'A. en mars 1934, appartenant aux familles: *Apolemiidae, Agalmidae, Forskaliidae, Physophoridae, Physaliidae, Porpitidae, Velellidae, Hippopodiidae, Frayidae* et *Diphyidae*.

**Lemche H.** - On some Nudibranchiate Gastropods from the Northern Atlantic [*Gastropoda nudibranchiata Oceani Atlantici septentrionalis*]. 8 figs., Vidensk. Medd., XCIX, 131-148. København (1935-36). **b - 557**

*Cratenopsis plumosus* n. g., n. sp., *Stiliger niger* n. sp., *Coryphella-* species, *Eubranchus* Forbes. Descriptions and localities. Classification.

**Leroy P.** - *Lingula anatina* Lamarck (1809) dans les mers froides de Chine [*Species* «*Lingula anatina*» *in maribus Sinensibus septentrionalibus*]. 1 fig., Bull. Soc. Sc. Nancy, 121-124. Nancy (1936). **b - 558**

Dans la *slikhe* des estuaires le long des côtes de la Chine du Nord, l'A. a recolté beaucoup d'exemplaires de *L. anatina*. Cette espèce peut donc vivre aussi dans les mers froides.

**Malm E. N.** - On the Discovery of *Amphioxus lanceolatus* in the North- Eastern Part of the Black Sea [*De inventa specie* «*Amphioxus lanceolatus*» *in regione nord-orientali Ponti Euxini*]. Works Arnoldi Biol. Stat., II, 1, 115-116. Novorossiysk (1936). **b - 559**

New habitats.

**Manton S. M.** - Ecological Surveys of Coral Reefs [*Inspectio oecologica scopulorum coralliferorum*]. 16 pls., Great Barrier Reef Exped. 1928-1929, Scient. Rep., III, 10, 273-312. Brit. Mus. (Natur. Hist.). London (1935). **b - 560**

The distribution of corals and influencing factors. The results of these surveys are expressed in graphs and in series of large-scale maps in picture form. *Montipora ramosa* dominant form in the moat, *Acroporas* in the seaward slopes.

**Miner R. W.** - Sea Creatures of our Atlantic Shores [*Animalia marina nostrorum litorum atlanticorum*]. 1 map, 8 figs., 8 col. pls, Nat. Geogr. Mag., LXX, 2, 209-231. Washington, D. C. (1936). **b - 561**

This article deals especially with the mollusks and other small creatures inhabiting the continental shelf which borders the Atlantic coast of N. America from Nova Scotia to New York, and includes the intensive New England fisheries. The geological structure of the Atlantic and its shores; description of the animal life of which the principal species are reproduced in colored pictures.

**Moore H. B.** - The Biology of *Balanus balanoides*. V. Distribution in the Plymouth Area [*De biologia speciei* «*Balanus balanoides*».

*V. Quaestio de distributione in area* Plymouth]. 6 figs., 6 tabl., Journ. Mar. Biol. Ass., XX, 3, 701-710. Plymouth (1936). **b - 562**

Five different localities have been examined: numbers and weights per square metre, mean individual weights at different tidal levels, growth in connection with food conditions. Differentiation between *Balanus balanoides, B. perforatus, B. crenatus, Verruca stroemia* and *Chthamalus stellatus.*

**Moore H. B.** - The Biology of *Purpura lapillus.* I. Shell Variation in Relation to Environment [*De biologia speciei « Purpura lapillus ». I. Variationes cochleae pro ambiente*]. 8 figs., 1 diagr., 2 pls. 2 tabl. o. t., Journ. Mar .Biol. Ass., n. ser., XXI, 1, 61-89. Plymouth (1936). **b - 563**

Geographical distribution. Variation and factors concerned: wave-action and diet, of which diet seems to have the greatest influence on shape as on colour. Correlation between abundance of *Mytilus* in the diet and sexual maturity, between height at the cessation of shell-growth and sexual maturity and between sexual maturity and height at which change in the spiral angle α (the angle of the logarithmic spiral of the shell) occurs.

**Mourgue R.** - Notes de Zoologie [*Notae zoologicae*]. Bull. mens. Soc. linn. Lyon, V, 25-26. Lyon (1936). **b - 564**

Dans le port de Marseille on a trouvé des Athérines, *Gasterosteus aculetus,* et des poissons abyssaux: *Stomias barbatus, Chauliodus macrurus, Echinorhinus spinosus* et *Gonostoma dentata.*

**Newcombe C. L.** - Certain Environmental Factors of a Sand Beach in the St. Andrews Region, New Brunswick, with a Preliminary Designation of the Intertidal Communities [*Factores ambientales alicuius orae maritimae in regione* St. Andrews, New Brunswick *cum designatione priore communitatum interaestuosarum*]. Journ. Animal Ecol., XXIII, 2, 334-355. Cambridge (1935). **b - 565**

Two great communities have been established: an epi-faunal *Balanus–Littorina–Fucus* biome and an infaunal *Mya–Nereis virens* biome. Succession and seasonal changes. The environmental conditions of the region: great tidal amplitude, sandy beaches of varying textures and degrees of slope, action of currents and waves, temperature changes.

**Nichol E. A. T.** - The Brackish-water Lochs of North Uist [*Lacus aquae salmacidae regionis* North Uist]. 7 figs., Proc. R. Soc. Edinburgh, Pt. 2, LVI, 169-195. Edinburgh (1936). **b - 566**

The brackish-water lochs of North Uist lie at different levels and are influenced in varying degrees by the tidal inflow. Salinity, hydrogen-ion concentration, alkali reserve, temperature and nature of the bottom. Distribution of the fauna, composed principally of marine, and also of fresh- and brackish-water species, at different salinities. Comparison of the common Molluscs found at North Uist and in Randersfjord.

**Okuda S.** - Chaetopterids from Japanese Waters [*Chaetopterida in aquis Japonicis*]. 12 fig., 1 pl., Journ. Fac. Sc. Hokkaido Imp. Univ., IV, 87-102. Sapporo (1935). **b - 567**

Revision of Japanese forms, which now amount to 5 spp. Two forms of *Ch. variopedatus* are distinguished according to habitat. *Mesochaetopterus minuta* is gregarious forming agglomerated bundles with the tubes in the sand.

**Panin K.** - Ueber das Vorkommen der pazifischen Iwashi-Sardine (*Sardinops melanosticta* Schl.) in den Gewässern von Ostkamtchatka [*De reperta specie « Sardinops melanosticta » Oceani Pacifici in aquis regionis orientalis* Kamtschatka]. Zool. Anz., CXV, 5/6, 149-152. Leipzig (1936). **b - 568**

Die Ostküste von Kamtschatka (Awatscha- Golf und Kronotzki-Meerbusen) ist jetzt als der nördlichste Fundort dieser Art angegeben, was wahrscheinlich mit dem Einfluss der warmen Kuro-Shivo-Strömung in Verbindung steht. Diese Art ist vollständig identisch mit der im Japanischen Meer lebenden.

**Peters N. & Panning A.** - Die chinesische Wollhandkrabbe in Europa. Kurzbericht zum Ende des Jahres 1935 [*« Eriocheir sinensis » in Europa. Relatio brevior anno exeunte 1935*]. 4 Abb., Fischmarkt, IV, 4, 99-107. Cuxhaven (1936). **b - 569**

I. Einleitung: Bedeutung der « gelben Gefahr » für die deutschen Gewässer und Notwendigkeit den Kreisen der Küsten- und Binnenfischer einen kurz gehaltenen Abriss über die Wollhandkrabbe zur Verfügung zu stellen. II. Die Verbreitung der Wollhandkrabbe in Europa (N. Peters). III. Der Lebenskreislauf der Wollhandkrabbe (A. Panning).

**Picken L. E. R.** - Mechanical Factors in the Distribution of a bluegreen Alga, *Rivularia haematites* [*Factores mechanici pro distributione speciei « Rivularia haematites »*]. New Phytologist, 35, 221-228. London (1936). **b - 570**

The size of the thallus is inversely proportional to the velocity of the water current and within similar regions of strong currents proportional to the stones serving as substratum.

**Prat H.** - Remarques sur la distribution des organismes dans les eaux littorales des Bermudes [*De distributione organismorum in aquis litoreis insularum* Bermudes]. 6 fig., Bull. Inst. Océanogr., 705, 1-23. Monaco (1936). **b - 571**

Les formations marines littorales s'étendent sur une surface beaucoup plus grande que les formations terrestres. Niveaux bionomiques: faciès rocheux (six zones); faciès vaseux (six zones); faciès sableux; formations coralliennes. Rôle des organismes vis-à-vis de l'érosion littorale. Distribution des organismes, évolution des récifs, comparaisons bionomiques.

**Pyatakov M. L.** - *Leander rectirostris* Czern. als neuer Gast im Kaspi-See [*Species « Leander rectirostris » hospes novus Maris Caspii*]. Zool. Anz., CXIII, 47. Leipzig (1936). **b - 572**

Diese Art ist wahrscheinlich aus dem Schwarzen Meere in den Kaspi-See in Verbindung mit vorgenommenen Akklimatisationsversuchen von Fischen eingeschleppt worden und hat sich dort vollständig eingebürgert.

**Renouf L. P. W.** - Faunistic Notes from the Coast of Co. Cark [*Notae faunisticae litorum* Co. Cark]. 1 fig., Ann. Natur. Hist., X, 16, 212-214. London (1935). **b - 573**

Seasonal changes in the fauna. Three new *Nudibranchiata.*

**Ricketts E. F. & Calvin J.** - A Natural History of Pacific Coast Invertebrates [*Historia naturalis Invertebratorum Oceani Pacifici*]. Stanford Univ. Press. Stanford Univ., Calif (1936). **b - 574**

About five hundred common marine invertebrates of the Pacific littoral from Mexico to Alaska are described and partially illustrated. The classification is ecological, by habitat, tidal zone and station. Phylogenetic index and bibl.

**Santucci R.** - Ricerche sulla fauna del Mar Rosso: la biologia delle acque territoriali eritree [*Investigationes in faunam Maris Rubri. Biologia aquarum territorialium erythraearum*]. Atti Soc. It. Progr. Sc., IV, 1, 74-77. Roma (1936). **b - 575**

Sono riportate le osservazioni eseguite sui Lamellibranchi, Gasteropodi, Oloturoidi, Selaci e Teleostei del Mar Rosso.

**Schenck H. G. & Keen A. M.** - Marine Molluscan Provinces of Western North America [*Regiones praeditae Molluscis marinis Americae Nord-Occidentalis*]. Proc. Amer. Phil. Soc., LXXVI, 6, 921-938. Philadelphia (1936). **b - 576**

Definition of a marine molluscan province. Study on the distribution of recent and fossil Molluscs from Washington to Southern California. Evidence of four distinct provinces. The results are shown graphically on a map and compared with the conclusions of other workers.

**Schmidt P. J. & Andriashev A. P.** - A Greenland Fish in the Okhotsk Sea [*Piscis groenlandicus in mari* Okhotsk]. 2 figs., Copeia, 2, 57-60. New York (1935). **b - 577**

*Eumesogrammus praecisus* (Krôyer) = (*Ernogrammus storoshi* Schmidt) has been found at depths of 40-142 m. in water of 32-33.3 pro mille salinity with a temperature of -1 to 5° C.

**Schmitt W. L.** - The West American Species of Shrimps of the Genus *Penaeus* [*Genus « Penaeus ». Species regionum Americae occidentalis*]. 2 pls., Proc. Biol. Soc. Washington, XLVIII, 15-24. Washington (1935). **b - 578**

*P. brasiliensis*, *P. occidentalis*, *P. stylirostis*, *P. balboae*, *P. vannamei*. Key, descriptions. Some information on the shrimp industry.

**Schuurmans Stekhoven J. H. Jr., Adam W. & Punt A.** - Oekologische Notizen über Zuiderseenematoden. II. Die Nematoden der östlichen Hälfte der Zuidersee nebst Beobachtungen über die Aussüssung der Zuidersee nach deren Eindeichung (Mitteilung der Zuidersee- Kommission) [*Notitiae oecologica de Nematodis regionis* Zuidersee. *II. Nematodes pertinentes ad dimidiam partem orientalem regionis* Zuiderzee. *Observationes circa dulcificationem regionis* Zuidersee *post molem foraneam constructam*]. 10 Abb., Ztschr. Morphol. u. Ökol. Tiere, XXIX, 5, 609-666. Berlin (1935). **b - 579**

Die hydrographischen und geographischen Verhältnisse der östlichen Hälfte der Zuidersee. Angabe von 113 Spezies von der Zuidersee, ihre Verteilung in der Zuidersee und an anderen nordeuropäischen Küsten, ihre Beziehung zu Meeresströmungen und zum Salzgehalt. Beziehung zwischen Salzgehalt und Menge von Nematoden gezeigt in Tabellen. Geschlechtsverhältnisse. Vergleich zwischen den hydrologischen Verhältnissen der Zuidersee und der Ostsee. Mischung von Süss- und Salzwasserspezies.

**Shiino S. M.** - Bopyrids from Tanabe Bay. III [« *Bopyrida* » *in Baja* Tanabe]. 6 figs., 3 tabl., Mem. Coll. Sc. Kyoto Imp. Univ., Ser. B, XI, 3, 157-174. (Contr. Seto Mar. Biol. Lab. No. 47). Kyoto (1936). **b - 580**

Description of 6 forms, 5 of which are new. *Bopyrella angusta* n. sp., *Bopyrinella antilensis* var. *nipponica* n. var., *Onychocepon resupinum* n. sp., *Grapsicepon magnum* n. sp., *G. rotundum* n. sp., *Cataphryxus* n. g. *priminus*. Emendations.

**Shiino S. M.** - Bopyrids from Shimoda and other Districts [*Bopyrida regionis* Shimoda *aliquorumque districtuum*]. 5 figs., Rec. Oceanogr. Works in Japan, VIII, 1, 161-176. Tokyo (1936). **b - 581**

List and descriptions of 6 species, two of which are new: *Heterocepon marginatum* n. gen. & n. sp., *Scyracepon quadrihamatum* n. sp., and a male of an undeterminable bopyrid.

**Shiino S. M.** - Bopyrids from Misaki [*Bopyrida ad regionem* Misaki *pertinentia*]. 6 figs., Rec. Oceanogr. Works in Japan, VIII, 1, 177-190. Tokyo (1936). **b - 582**

List and descriptions of 8 species. One new variation is recorded, *Athelges takanoshimensis* var. *tenuibranchiatus* n. var.

**Spärck R.** - Review of the Danish Investigations on the Quantitative Composition of the Bottom Fauna in Iceland and East Groenland Waters [*Conspectus investigationum Danicarum in compositionem quantitativam faunae in fundo marino Islandiae, Groenlandiae Orientalis*]. 1 fig., Cons. Expl. Mer, Rapp. & Pr.-Verb., XCIX, Rapp. Atlant. 1933-35, V, 3-5. Copenhague. **b - 583**

A short review of the results obtained during quantitative investigations of the bottom fauna in Faroe and Iceland waters, specially concerned with the *Macoma*, *Venus*, und *Yoldia* communities there observed.

**Strohl J.** - La Bipolarité de la faune marine et les données actuelles de la génétique [*De faunae marinae bipolaritate. Data hodierna genetica*]. 1 tabl., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 311-318. Bruxelles (1936). **b - 584**

Il est bon de se rendre compte, à propos du problème de la bipolarité, des méthodes employées dans les constatations biogéographiques. Le procédé taxonomique présente un caractère essentiellement statistique. Considérations sur les relations de la taxonomie avec la physiologie et la génétique.

**Thamdrup H. M.** - Beiträge zur Ökologie der Wattenfauna auf experimenteller Grundlage [*Contributiones in oecologiam faunae regionis maris Nordici quae dicitur* Wattenmeer *ex basi experimentali*]. (In Dtsch., Dän. Rés.). 124 Abb., Medd. Komm. Danm. Fisk. & Havunders. ser. Fiskeri, X, 2, 1-125. København (1935). **b - 585**

Bericht über die seit 1931 vom Skalling- Laboratorium unternommenen Untersuchungen. Der Zweck der Untersuchungen, war es, in Verbindung mit den verschiedenen äusseren Faktoren die qualitative und quantitative Verteilung der Arten an der Ostküste der Halbinsel Skalling südöstlich von Blaavands Huk sowie in anderen Teilen des nordeuropäischen Wattenmeeres zu studieren.

Physikalisch- chemische Faktoren. Allgemeine biologische Verhältnisse. Physiologie. Verteilungsverhältnisse. Beziehungen zwischen Fauna und äusseren Faktoren. Umsatzverhältnisse. Künftige Untersuchungen.

**Torelli B.** - Distribuzione in profondità degli *Euphausiacea* del Golfo di Napoli [*Euphausiacea Sinus Neapolitani. Distributio in profundum*]. Boll. Zool., VII, 1, 9-11. Napoli (1936). **b - 586**

Tra le specie di *Euphausiacea* presenti nel Golfo di Napoli, solo *Meganyctiphanes norvegica* è esclusivamente di superficie; le altre sono tutte rappresentate nella zona tra gli 800 e i 1000 metri che è la più popolata. Fra i 300-600 metri, nel passaggio dalla zona di temperatura variabile a quella di temperatura costante, c'è un forte spopolamento, che diventa totale a 500 metri.

**Uda Mititaka** - Distribution of Drifting Bodies in the Ocean Current [*Distributio organismorum fluctuantium in currentiis marinis*]. 2 figs., Bull. Jap. Soc. Scient. Fish., IV, 5, 289-293. Tokyo (1936). **b - 587**

A theoretical study on the results of current- bottle experiments with the future application to the biological problems of the distribution of fish-eggs, fish-larvae or some species of planktons.

**Valovirta E. J.** - Ueber die Verbreitung einiger Bodentiere im Bottnischen Meerbusen (*Notulae Zoologicae*) [*Distributio aliquorum animalium in fundo marino sinus Botnici*]. Ann. Zool. Soc. Zool-Bot. Fennicae Vanamo, 1, 12-14 ? (1932-35). **b - 588**

Oekologie und Verbreitung von *Mytilus edulis*, *Membranipora pilosa* v. *membranacea*, *Gammarus locusta*, *Mysis oculata* mod. *relicta* u. a.

**Vladykov V. A.** - On the Occurrence of some North Pacific Fishes in Hudson Bay with Remarks on the Fish Fauna of the latter Area [*De quibusdam Piscibus Oceani Pacifici septentr. in baja* Hudson. *Observationes circa faunam Piscium huius regionis*]. Proc. 5 th Pacific Sc. Congr. 1933, 5, 3787-3789. Univ. Toronto Press. Toronto (1934). **b - 589**

This study is based on 6 collections made in Hudson Bay during 1919-1930. Composition of the fish-fauna: truly marine and arctic forms belong to *Cottidae*, *Blennidae*, *Zoarcidae*, *Cyclopteridae* and *Gadidae*. Relationships to the Atlantic and Pacific.

**Vorstmann A. G.** - Biologische Notizen betreffs der sessilen Fauna im Hafen der Stadt Amsterdam [*Notitiae biologicae de fauna sessili in portu Amstelodamiensi*]. 3 Abb., Zool. Anz., CIX, 76-80. Leipzig (1935). **b - 590**

Die Fauna vor und nach der Abschliessung der Zuidersee: wenige Veränderungen. Die verschiedenen Bewachsungen und *Balanus improvisus* im Winter: Protozoen, Ende Mai: *Cordylophora lacustris*, Ende Juni: *Embletonia pallida* Juli- Oktober: *Congeria cochleata*. Als typisch für die Fauna des Hafengebietes wird *Victoriella parida* genannt.

**Wilkansky B.** - Life in the Dead Sea [*De vita in lacu Asphaltite*]. 2 figs., Nature, CXXXVIII, 3489, 467. London (1936). **b - 591**

Short report on some organisms found in samples of Dead Sea water taken at a distance of 3-4 km. from the mouth of the Jordan at various sea depths up to 7 metres.

**Yamada Yukio** - The Species of *Eucheuma* from Ryûkyû and Formosa [«*Eucheuma*» *ex* Ryûkyû *et Formosa provenientia*]. 13 fig., 9 pl., Scient. Pap. Inst. Algol. Res, Hokkaido Imp. Univ., I, 2, 119-134. Sapporo (1936). **b - 592**

In the present paper 7 species of *Eucheuma* are enumerated, found in the Ryûkyû Archipelago and Formosa, with many figures and photographs. Some species proved to be somewhat intermediate forms between the *Axifera* and the *Anaxifera*. Analytical key to the species *Eucheuma*.

## Migrationes et marchatura - Scalae ascensionales.

**Altnöder K.** - Die Wanderung der Ostseelachse [*De migratione Salmonis Maris Baltici*]. 1 Karte, Dtsch. Fischwirt., III, 17, 259-260. Berlin (1936). **b - 593**

Versuche mit der Angelhakenmethode, Markierung. Zusammenfassende Resultate der Markierung. Notwendigkeit weiterer Studien besonders für die deutsche Ostseeküste.

**Athanassopoulos G.** - Sur la montée des civelles dans la Méditerranée orientale [*Ascensus juvenum anguillarum in Mare Nostrum quod ad orientem spectat*]. 1 tabl., Bull. Inst. Océanogr., 692, 1-3. Monaco (1936). **b - 594**

L'A. complète dans la présente Note ses études antérieures sur la répartition singulière de la montée des civelles dans la Méditerranée: «il est probable que des conclusions de la plus haute importance pourraient en être tirées, pouvant contribuer considérablement à l'éclaircissement de la fameuse question biologique de la migration de l'anguille».

**Athanassopoulos G.** - Sur un fait curieux de la montée d'Anguille [*De notando quodam casu circa ascensionem Anguillarum*]. Bull. Inst. Océanogr., 697, 1-7. Monaco (1936). **b - 595**

L'A. a suivi pendant les mois de janvier et février la montée des Anguilles dans le golfe d'Eleusis. Le nombre d'individus récoltés présente un maximum en février. Longueur en millimètres, pigmentation, poids.

**Athanassopoulos G.** - Encore sur la montée des Civelles en 1936 [*De ascensione anguillularum A. 1936*]. 7 fig., Bull. Inst. Océanogr., 710, 1-15. Monaco (1936).

(—) C. R. Acad. Sc., CCII, 13, 1204-1206 Paris (1936). **b - 596**

Longueur en millimètres, pigmentation et poids des civelles capturées dans le golfe d'Eleusis. La montée commence en janvier, son maximum paraît en Mars et puis diminue graduellement. La dimension des individus varie même sous le même poids. Chaque montée de jeunes individus est précédée par la montée d'indivus plus agés.

**Baker S. & Gilroy U. B.** - Problems of Fishway Construction in Relation to Migration of Fish [*De itineribus pro Piscibus construendis, migrationis tempore*]. Proc. 5th. Pacific Sc. Congress 1933, 5, 3609-3615. Univ. Toronto Press. Toronto (1934). **b - 597**

Designs, location and construction of various fishways. Several examples, as the construction of elevating salmon at Ariel Dam, the mechanical and electrical fish screens adopted by the U. S. Bureau of Fisheries, etc.

**Berg L. S.** - Les oscillations climatiques récentes et leur effet sur les migrations des poissons [*Recentiores oscillationes climaticae earumque effectus in Piscium migrationes*]. (En russe). Probl. Fis. Gheogr., 2, 73-84. Leningrad (1935). **b - 598**

**Bowman A.** - Lemon Soles (*Pleuronectes microcephalus*). Marking Experiments in Scottish Waters during the Period 1919-1931 [*Species «Pleuronectes microcephalus». Experientiae marchaturarum in aquis Scotis, tempore 1919-1931*]. 6 charts, 1 graph, 13 tabl., Fish. Scotl., Scient. Invest., 1935, 3-41. Edinburgh (1936). **b - 599**

Of 7,799 fish marked and liberated, 13 % were recaptured before January 1933. The paper illustrates especially the mortality due to marking, the methods of recapture and ports of landing, the marking experiments in their relation to spawning and migrations, and the mean rate of recapture.

**Bruce C.** - Fishways [*Itinera pro Piscium*]. Proc. 5th Pacific Sc. Congress 1933, 5, 3617-3621. Univ. Toronto Press. Toronto (1934). **b - 600**

General hints for the construction of fishways with special reference to the necessity of occasional pools to afford resting places for the fishes as recently constructed by the Canadian Dpt. Fisheries.

**Chatton E.** - Les migrateurs horizontalement polarisés de certains Péritriches [*Species migrantes sensu horizontali uliquorum Peritrichorum*]. 11 figs., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 913-940. Bruxelles (1936). **b - 601**

Identification du Péritriche *Epistylis horizontalis* n. sp. sur le *Balanus eburneus* à Woods-Hole et sur le *B. amphitrite* à Sète; morphologie et genèse de l'exemplaire migrateur à partir du sédentaire; la question du sens de la division chez les Péritriches. Autres Péritriches à migrateurs horizontalement polarisés. Le problème de la phylogénie des Péritriches et la signification des deux manières de migrateur comme caractère ancestral et comme forme d'adaptation.

**Clark G. H.** - A Second Report on Striped Bass Tagging [*Relatio secunda de marchatura speciei* « *Roccus lineatus* »]. 1 map, 3 tabl., Calif. Fish & Game, XXII, 4, 272-283. Sacramento (1936). **b - 602**

This report completes former records (XX, 1, 14-19, 1934) and the results concerning number of Striped Bass tagged, size when tagged, date of tagging and recovery, localities etc., are expressed in tables. No proof of definite migrations.

**Dahl K. & Sømme S.** - Experiments in Salmon Marking in Norway, 1935[ *Experientiae depromptae ex marchaturis salmonum in Norvegia, A. 1935*]. Stat. Forsøksvirks. f. Ferskvannsfiskeri. 1. Mat.-Naturv. Kl., No. 12. Oslo (1935). **b - 603**

These experiments have shown that *Salmo salar* has a wider range in its migrations than has been proved hereto in Europe. See rev. in Nature, 3468, 671-672. London (1936).

**Dorofeew S. W. & Klumow S. K.** - Ueber die wirtschaftlich bedeutenden Migrationen des Weisswals (*Delphinapterus leucas* Pall) im Gebiet der Insel Sachalin [*De migrationibus magni momenti oeconomici speciei* « *Delphinapterus leucas* » *apud insulam* Sachalin]. (In Russ., Dtsch. Rés.). 1 Karte, 7 Abb., Trans. Inst. Fish. & Oceanogr. USSR (VNIRO), III, 7-23. Moscow & Leningrad (1936). **b - 604**

Wege, Leiten der Migrationen. Anzahl der Herde. Fangstatistik.

**Foerster R. E.** - The Return from the Sea of Sockeye Salmon (*Oncorhynchus nerka*) with special Reference to Percentage Survival, Sex Proportions, and Progress of Migration [*Reditus marinus speciei* « *Oncorhynchus nerka* ». *Agitur particulatim de numero exemplarium morti resistentium, de proportionibus sexualibus deque progressibus migratoriis*]. 3 figs., tabl., Journ. Biol. Bd. Canada, III, 1, 26-42. Toronto (1936). **b - 605**

Report on investigations undertaken on sea-ward migrating sockeye at Cultus lake, B. C. in 1930. Results expressed in tables and diagrams.

**Gandolfi - Hornyold A.** - Observations sur la montée de la civelle dans l'Orio [*Observationes circa ascensionem anguillularum super* Orio *flumen*]. 2 tabl., Bull. Soc. Océanogr. France, XVI, 87, 1505-1506. Paris (1936). **b - 606**

Résultats d'observations sur la montée des civelles au cours de l'année dans l'Orio, le fleuve le plus important de la province de Guipùzcoa (Pyrénées). Influence de la température et d'autres facteurs sur la montée.

**Gewecke J.** - Treppen und Aufzüge für Fische [*De scalis et apparatibus pro ascensione Piscium*]. 4 Abb., Umschau, XL, 8, 148-152. Frankfurt a. M. (1936). **b - 607**

Beschreibung mit Abbildungen von einigen Fischtreppen und Fischaufzügen. Ergebnisse.

**Holmes H. B.** - Natural Propagation of Salmon in Alaska [*Propagatio naturalis salmonis in* Alaska]. Proc. 5th Pacific Sc. Congr., 1933, 5, 3585-3592. Univ. Toronto Press. Toronto (1934). **b - 608**

These investigations concern principally the red-salmon runs in Karluk and Chignik rivers with a view to determine the number of seaward migrants and adults produced by given numbers of spawning fish.

**Huntsman A. G.** - Return of Salmon from the Sea [*Salmonisr editus marinus*]. 6 figs., Bull., Biol. Bd Canada, LI, 1-20. Ottawa (1936). **b - 609**

Attempt to elucidate the question of the return of the Salmon from the sea with special regard to the Atlantic salmon (*Salar salar*). As the salmon shows a great variety in behaviour in different places, every river or district is considered separately with information on distribution in the sea, movements of young and adult etc.

**Ivanova - Berg M. M.** - Spring Migration and Spawning of the Neva Lamprey [*Migratio vernina et reproductio Lampetrae fluminis* Neva]. (In Russ.; Engl. Rés.). Tabl., Bull. Acad. Sc. U. S. S. R., 2, 3, 599-604. Moscou (1936). **b - 610**

Spawning occurs in the first half of June and spring migration begins in May. Two different types of coloration between spring lampreys, those coming from the sea have a golden metallic line. Possibility of the existence of two races. Average length. Comparison with *Salmonidae*.

**Kask J. L.** - The Experimental Marking of Halibut [*Marchaturarum experientiae speciei* « *Hippoglossus vulgaris* »]. Science, LXXXIII, 2158, 435-436. New York (1936). **b - 611**

Account of experiments undertaken in 1935 by the International Fisheries Commission for the Pacific halibut fishery.

**Krizanovsky S. G.** - Concerning the Dependence of the Spawning Migrations of *Vimba vimba* and *Chalcalburnus chalcoides* upon the Pecularities of their Development [*De migrationibus, reproductionis causa, specierum* « *Vimba vimba* » *et* « *Chalcalburnus chalcoides* » *earumque dependentia ab accretionis peculiaritatibus*]. (In Russ., Engl. Rés.). 6 figs., 3 tabl., Works Arnoldi Biol. Stat., II, 1, 17-26. Novorossiysk (1936). **b - 612**

The larvae of *Vimba vimba* and *Chalcalburnus chalcoides* cannot develop in still or very slowly running waters among the grass because, having no cement-organs, they would fall on the bottom into the slime, where they would perish as their organs of respiration, being situated on the surface of the body, would not be able to function. For a successful function of such organs of respiration the cement-organs being absent and the larvae immobile, the latter have to develop on stony, not slimy bottom in the running water. (From A:s summ.).

**Moskvin B. S.** - Some Data on the Spawning Migrations and the Culture of the *Acipenser stellatus* of the Don [*Data de migrationibus reproductionis causa deque cultura speciei* « *Acipenser stel-*

*latus* » *fluminis* Don]. (In Russ., Engl. Rés.). Works Arnoldi Biol. Stat., II, 1, 117-129. Novorossiysk (1936). **b - 613**

Two maximum periods of spawning migrations in Spring (April-May) and in Autumn (September-October) and factors concerned. Sex-proportion, larvae, spawning places. Some information on the fish-culture of the Don, which is in diminution.

**Panning A.** - Wollhandkrabben wurden markiert [*De marchatura speciei « Eriocheir sinensis »*]. Fischmarkt, N. F., IV, 1, 20-21. Cuxhaven (1936). **b - 614**

Bericht über die in der Elbe und Weser veranstalteten Markierungsversuche an der Wollhandkrabbe; der Arbeitsgang und die ersten Ergebnisse der Versuche, mit besonderer Berücksichtigung der Wanderungen des *E. sinensis*.

**Panning A.** - Wandern die Larven der Wollhandkrabbe? [*Num larvae speciei « Eriocheir sinensis » migrant?*]. Zool. Anz., CXV, 175-177. Leipzig (1936). **b - 615**

Bericht über einige Funde von Megalopen in der Nähe von der Elbe-Mündung, aus welchen es hervorgeht, dass die Larven ganz beträchtliche Strecken stromauf zurücklegen.

**Pearse A. S.** - The Migrations of Animals from Sea to Land [*Animalium migrationes a mari ad terram*]. x + 176 pp., Duke Univ. Press. Durham, N. Carol. (1936). **b - 616**

History of the migration of animals through ages based on A : s own ecological researches as well as on those of 500 other investigators: Origin of life in the sea, comparison of biotic conditions in salt and fresh water and ashore. Routes from sea to land; causes of migrations, changes occurred in animals from these aboceanic migrations. Bibl.

**Pritchard A. L.** - Factors Influencing the Upstream Spawning Migration of the Pink Salmon, *Oncorhynchus gorbuscha* (Walbaum) [*Factores influentes in migrationem reproductionis speciei « Oncorhynchus gorbuscha » currentiam ascendentis*]. 3 figs., Journ. Biol. Bd. Canada, II, 4, 383-389. Toronto (1936). **b - 617**

From data collected at McClinton creek, Masset inlet, British Columbia, as a result of a comprehensive programme of investigation on the pink salmon, *O. gorbuscha*, a positive significant mathematical correlation is demonstrated between numbers of fish migrating from the sea to the stream each day and both the maximum daily water height in the creek and the daily rainfall in the area. A positive significant correlation also exists between the maximum water height and rainfall. From available record no co-variation between numbers of migrants and changes in temperature can be shown. (A.).

**Pyefinch K. A.** - Habitat of *Procerodes (Gunda) ulvae* [*De habitat speciei « Procerodes (Gunda) ulvae »*]. Nature, CXXXVII, 3453, 32. London (1936). **b - 618**

Preliminary note on migrations of *Procerodes ulvae* due to tide phenomena.

**Steven G. A.** - Migrations and Growth of the Thornback Ray (*Raia clavata* L.) [*Migrationes et accretiones speciei « Raia clavata »*]. 2 figs., 4 tabl., Journ. Mar. Biol. Ass., XX, 3, 605-614. Plymouth (1936). **b - 619**

Report on marking experiments carried out in the vicinity of Plymouth. Distances travelled by recaptured fish. Mean size increments recorded.

**Sugano Susumu** - The Depth and the Distance from Shore of the Routes of Migration of Salmons [*De profunditate et distantia ab ora maritima Salmonum migrantium*]. (In Jap.; Engl. Rés.). 2 tabl., Bull. Jap. Soc. Scient. Fish., IV, 5, 318-320. Tokyo (1936). **b - 620**

Pink, dog and red salmons are groups migrating northwards and the proportion becomes higher from the earlier to the main fishing season and then decreases towards the end of the season. The fishes are abundant in the most distant part from the shore in the earlier, the intermediate and the next parts to the shore in the main, and again most apart in the later season.

**Sugano Susumu** - Immigration of Salmons to a Fishing Ground on the West Coast of Kamtchatka in Relation to the Hydrographical Conditions [*Salmonum migratio ex loco piscatorio ad litora occidentalia regionis* Kamtchatka *pro hydrographicis condicionibus*]. (In Jap.; Engl. Rés.). 1 fig., 2 tabl., Bull. Jap. Soc. Scient. Fish., IV, 6, 407-408. Tokyo (1936). **b - 621**

From the daily serial observations of the temperature, salinity and transparency of sea-water it results that Salmons immigrate most abundantly to the fishing ground of Voroskaya when the temperature is 10° to 13° C, salinity less than 29.8 ‰, and transparency is small near the shore but great in the offing.

**White H. C.** - The Homing of Salmon in Apple River, N. S. [*Reditus salmonis in flumen* Apple River *Columbiae Britannicae*]. 4 figs., Journ. Biol. Bd. Canada, II, 4, 391-400. Toronto (1936). **b - 622**

Salmon from the East branch of Apple River marked as smolts in 1934 returned as grilse in the fall of 1935, entering only the East branch up to spawning time. After spawning some females dropped down to tidal pools in early November and later reascended the stream. Male salmon tagged as adults left their « home » pools, roaming up and down and even going through tidal water to the other branch (From A.).

## Animalium societas - Biocoenosis – Symbiosis.

**Arndt W. & Pax F.** - Das Zusammenleben von Krustenanemonen und Schwämmen im Mittelmeer mit besonderer Berücksichtigung der Adria [*De symbiosi inter Zoantharia et Spongias in Mari Mediterraneo. Agitur particulatim de Mari Hadriatico*]. (Engl. Rés.). 8 Abb., Thalassia, II, 3, 1-34. Jena (1936). **b - 623**

Frühere Forschungen. Untersuchungen der Gattung *Parazoanthus*, mit besonderer Berücksichtigung der Art *P. axinellae*, Charakterisierung, Systematisches, Fremdkörperskelett, Zusammenleben mit *Axinellae*, Verbreitung dieser Kolonien, Bedeutung und Anpassungsfähigkeit. Vorkommen von Gnathiiden-Larven im Körper von *P. axinellae* als eine Folge des Zusammenlebens mit Schwämmen.

**Cuénot L.** - Commensalisme des pontes de Céphalopodes avec des Eponges et des Cnidaires [*De Cephalopodorum commensalismo cum Spongiis et Cnidariis*]. Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 37-40. Bruxelles (1936). **b - 624**

Les oeufs des Seiches, et plus remarquablement de *Sepia orbignyana*, *S. elegans* et *Rossia glaucopis*, sont attachés à des animaux vivants et il existe un rapport fixe entre la ponte et l'hôte commensal, qui est une éponge.

**Hiro F.** - Occurrence of the Cirriped *Stomatolepas elegans* on a Loggerhead Turtle found at Seto [*De specie « S. elegans » in testudine marina*

*« Caretta olivacea » in* Seto *reperta*]. Ann. Zool. Jap., XV, 3, 312-320. (Contr. Seto Mar. Biol. Lab. No. 55). Tokyo (1936). **b - 625**

Costa's *Stomatolepas elegans* has been rediscovered at Seto embedded in the soft skin of *Caretta olivacea*. Descriptions of the external and internal structures are given. Pilsbry's *S. praegustatar* (1910), and possibly, Nilsson Cantell's *S. transversa* (1930) seem to be identical with Costa's *S. elegans* (1838) (From A : s rés).

**Lindroth A.** - Die Assoziationen der marinen Weichböden [*De fundis marinis lutulentis. Quaestio de associatione*]. 1 Karte, 4 graph. Fig., Zool. Bidr. Upps., XV, 331-368. Uppsala (1936). **b - 626**

Diese Untersuchungen sind während des Sommers 1932 im Gullmarsfjord an der schwedischen Westküste ausgeführt worden. Vf. berichtet über seine Methode und seine Geräte und gibt die erhaltenen faunistischen Ergebnisse in einem tabellarischen Profil wieder. Als allgemeine Schlussfolgerung führt er an, dass die Assoziationen der marinen Weichböden nicht als abgegrenzte Einheiten aufgefasst werden können und dass die angewandten Methoden oft irreführend sind.

**Lucas C. E. & Henderson G. T. D.** - On the Association of Jelly-fish and other Organisms with Catches of Herring [*De associatione Medusarum et ceterorum organismorum in capturis aringorum*]. 7 tabl., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 293-304. Plymouth (1936). **b - 627**

These observations as a whole suggest an avoidance by the herring of large numbers of jelly-fish; and especially « small white » jellyfish. There is some evidence of a negative association between herring and the presence of large numbers of squid, dog-fish and whales. (From A : s summ.).

**Newcombe C. L.** - A Study of the Community Relationships of the Sea Mussel, *Mytilus edulis* L. [*De correlationibus in differentibus organismis quae communitatem constituunt speciei « Mytilus edulis »*]. Ecology, XVI, 234-243. Brooklyn N. Y. (1935). **b - 628**

Study on the variations in the vertical distribution of *Mytilus edulis* in the intertidal communities of the Bay of Fundy. Discussion on the association *Balanus-Mytilus edulis*: occurrence of true succession, relations between the different constituents of the community. Growth of *Mytilus edulis* and factors concerned with it.

**Parat M. & Devillers Ch.** - Sur les associations animales des côtes de l'île Jan Mayen [*De associationibus animalibus ad litora insulae* Jan Mayen]. C. R. Acad. Sc., CCII, 1, 90-92. Paris (1936). **b - 629**

Dragages et prises d'échantillons à différentes profondeurs sur les côtes de Jan Mayen faites par le « Pourquoi-Pas ? ». L'A. a pu distinguer deux communautés animales principales, à voire: l'association *Astarte borealis* Chemn. - *Macoma calcaria* Chemn. et l'association *Arca glacialis* Grays - *Astarte crenata* Gray. L'étude de ces deux associations a permis de combler la lacune des documents concernant les mers arctiques, étant donné que la biocoenotique de Jan-Mayen constitue une étape zoo-géographique importante entre le Groenland et le Spitzberg.

**Parker G. H.** - An Inquiline Gammarid on the Sea-Urchin, *Lytechinus* [*De Gammaride inquilino in specie « Lytechinus »*]. Ecology, XVII, 1, 185-186. Brooklyn (1936). **b - 630**

*Amphilocus neapolitanus* found among the spines of *Lytechinus variegatus atlanticus* in Bermuda.

**Prenant M.** - Sur un curieux complexe d'Astérie et de *Donax* [*De curioso complexu speciei « Astropecten irregularis » cum specie « Donax trunculus »*]. Mém. Mus. Hist. Natur. Belgique, Sér. 2, 3, 413-414. Bruxelles (1936). **b - 631**

Une Astérie (*Astropecten irregularis*) qui porte une coquille bivalve de *Donax trunculus* encastrée a son pole aboral; la seule interprétation plausible est que l'Astérie avait ingéré le *Donax*, exceptionnellement gros, et que la distension des valves a été telle que l'estomac et la paroi se sont rompus.

**Sato T.** - Vorläufige Mitteilung über *Atubaria heterolopha* gen. nov., sp. nov., einen in freiem Zustand aufgefundenen Pterobranchier aus dem Stillen Ozean [*Relatio prior de « Atubaria heterolopha » g. n. sp. n. Pterobranchio reperto libero in Oceano Pacifico*]. 5 Abb., Zool. Anz., CXV, 3/4, 97-106. Leipzig (1936). **b - 632**

Die hier beschriebene Art wurde in mehreren Exemplaren auf einer im August 1935 aus der Sagami-Bucht gedreggten Kolonie von *Dycoryne conferta* gefunden und untersucht. Eingehende Beschreibung und Diagnose. Hiermit ist zum erstenmal ein Pterobranchier aus dem östlichen Teil der japanischen Gewässer gefangen worden.

**Schijfsma K.** - Observations on *Hydractinia echinata* (Flem.) and *Eupagurus bernhardus* (L.) [*Observationes circa species « Hydractinia echinata » et « Eupagurus bernhardus »*]. Arch. Néerl. Zool., I, 3, 261-314. Harlem (1935). **b - 633**

Investigations on the association of these two species show that there is no proof of a true mutualism the hydroid being rather an epizoön sharing the food of the Crustacean. Distribution of both species.

**Souche G.** - Sur les animaux rencontrés chez les *Eschara fascialis* L. [*De animalibus repertis in specie « Eschara fascialis »*]. Bull. Stat. Biol. d'Arcachon, XXXII, 1, 45-47. Bordeaux (1935). **b - 634**

Les logettes de plusieurs exemplaires de *Eschara fascialis* trouvés dans la Manche contenaient un *Porcellana longicornis* Penn., un *Cucumaria penctata* Müller, un *Pontobdella muricata* L., de nombreux exemplaires de Serpules, *Ophiothryx fragilis echinata* Delle Chiaje et *Porcellana*, ainsi que quelques coquillages tous très petits ou transformés.

**Souche G.** - Sur la présence d'oursins chez la sole [*De Echinis in specie « Solea lascaris »*]. Bull. Stat. Biol. d'Arcachon, XXXII, 1, 51-52. Bordeaux (1935). **b - 635**

Cet exemplaire avait, attaché au corps, un long chapelet de petits bosses contenant de petits oursins un peu transformés, probablement des *Echinocyamus pusillus* Fleming.

**Tetry A.** - Présence de la Crépidule américaine sur les Moules du marché de Nancy [*De Crepidula in Ostreis fori piscatorii urbis* Nancy]. C. R. Soc. Biol., CXVIII, 1558. Paris (1935). **b - 636**

Importation en 1880 de l'Amérique de la Crépidule américaine et sa rapide dispersion en Europe. Elle se fixe sur les Moules et les Huîtres mais n'est pas un parasite.

**Vatova A.** - Ricerche preliminari sulle biocenosi del Golfo di Rovigno [*Investigationes priores in biocoenoses Sinus Arupinensis*]. 12 tab., Thalassia, II, 3, 1-30. Venezia (1935). **b - 637**

In base a 297 saggi di fondo raccolti nel 1932-34 nella zona di Rovigno, si possono distinguere le seguenti biocenosi: 1° *Schizaster chiajei* e la sua facies locale; 2° *Schizaster Turritella*; 3° *Tellina*, con la specie predominante *Tellina distorta* Poli; 4° *Lima fragilis hians* con *Lima hians* Gm. e *Ophiothrix fragilis*; 5° *Chione verrucosa* con una ricca epifauna; 6° *Loripinus fragilis*, biocenosi costiera e 7° *Am-*

*phioxus*, propria dei fondi sabbiosi lungo la costa. Determinazione del peso lordo della sostanza organica per m² (in gr.); percentuale in peso per i vari gruppi di animali. L'A. ha messo in evidenza la predominanza dell'epifauna, l'abbondanza di Echinodermi e Lamellibranchi e la scarsezza di Gasteropodi, Policheti e Crostacei.

**Vouk V.** - Les Cyanophycées et la salinité dans le thallus de *Codium Bursa* L. [*De Cyanophyceis et salsedine in thallo speciei « Codium Bursa »*]. Bull. Int. Ac. Joug. Sc. beaux-Arts, XXIX-XXX, 59-63. Zagreb (1936). **b - 638**

Résumé du Mémoir paru dans le « Rad » (CCLIV, 1-12) concernant les Cyanophycées rouges vivant à l'intérieur du thallus de l'algue *C. Bursa*. L'élément principale pour cette association est constitué par les espèces: *Phormidium Codicolum* et *Lyngbia Frémyi*; les autres espéces se montrent dans l'association d'une manière sporadique. L'eau de mer dans le thallus de *C. Bursa* a une salinité un peu élevée par rapport à l'eau de mer ambiante et cela aurait pour effet la turgescence de la forme sphérique du thallus.

**Yonge C. M.** - Mode of Life, Feeding, Digestion and Symbiosis with *Zooxanthellae* in the *Tridacnidae* [*Vitae ratio, nutricatio, digestio et symbiosis in Zooxanthellis cum Tridacnidis*]. 5 pls., Great Barr. Reef Exped., 1928-1929. Scient. Rep., I, 11, 283-321. London (1936). **b - 639**

Two different groups of *Tridacnidae*. Description of the most important forms of *Tridacnidae* and *Zooxanthellae*. The partnership, one of the most evolved symbioses ever recorded, on which depends the whole problem of feeding, structure and evolution.

## Parasiti. Patologia et Teratologia.

**Allgèn C.** - Ueber eine neue epizoisch auf einer *Desmodora* (Nematodes) lebende Art der Gattung *Thecacineta* Collin, *Th. donsi* n. sp. aus der Strand-region bei Tarva (Norwegen) [*De nova specie epizoica « Thecacineta donsi » ad genus « Thecacineta»* Collin *pertinenti in specie quodam « Desmodora »* (*Nematoda*) *viventi in litorea regione* Tarva]. Kgl. Norsk. Vidensk. Selsk. Forh., VIII, 16, 51-53. Trondheim (1936). **b - 640**

Frühere Befunde, Beschreibung der neuen Art, Vergleich mit anderen Arten.

**Ankel W. E.** - Die Pantoffel- Schnecke auf deutschen Austernbänken [*« Crepidula fornicata » praesens in vadis Ostrearum Germaniae*]. Natur u. Volk, LXVI, 1, 11-13. Frankfurt a. M. (1936). **b - 641**

Bericht über Beobachtungen von *Crepidula fornicata* auf Austernbänken bei der Ellenbogenbank, List (Sylt). Diese Art ist vermutlich mit den Saataustern aus Holland eingeschleppt worden.

**Bauch R.** - *Ophiobolus Kniepii*, ein neuer parasitischer Pyrenomycet auf Kalkalgen. [*« Ophiobolus Kniepii » novus Pyrenomycetus parasitus in Algis calcareis*]. 8 Abb., Pubbl. Staz. Zool., XV, 3, 377-391. Napoli (1936). **b - 642**

Die meisten marinen Ascomyceten sind in der Untergruppe der Sphaeriineen innerhalb der Pyrenomyceten zu finden. Sie sind meistens typische Parasiten auf lebenden Rot- und Braunalgen und Meeresphanerogamen, auf welchen sie schmarotzen und Krankheiten erregen. Eingehende Beschreibung dieses neuen Pyrenomyceten, den Vf. im Frühjahr 1928 auf den Thalli der *Corallinacee: Lithophyllum expansum* Phil. an der zoologischen Station Neapel gefunden hatte.

**Bayer Ch.** - Sur une difformité du *Cassis cornuta* (L.) causée par des Balanes [*De difformitate speciei « Cassis cornuta » Balanidarum causa*]. 2 figs., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 41-42. Bruxelles (1936). **b - 643**

Description de l'anomalie curieuse dans la croissance de la coquille de *Cassis cornuta*, occasionnée par une colonie de Balanides.

**Berry J.** - An interesting Case of Semicyclopia in a Shark [*Semicyclopia notanda in Squalo*]. 3 pls., Journ. Bombay Natur. Hist. Soc., XXXVII, 4, 912-916. Bombay (1935). **b - 644**

Teratological aberration of rostrum and orbits in an embryo *Charcharias dussumieri*. Explanation.

**Boschma M.** - Sur la *Sacculina carpiliae* et la *Sacculina leptodiae* du Guérin-Ganivet [*« Sacculina carpiliae » et « Sacculina leptodiae » a* Guérin Ganivet *descriptae*]. 1 fig., Bull. Mus. Nat. Hist. Natur., VIII, Sér. 2, 4, 342-344. Paris (1936). **b - 645**

L'A. a pu étudier un exemplaire de *S. carpiliae* sur *Carpilius convexus* de la Mer Rouge, et trois exemplaires de *S. leptodiae* sur *Xanthodius exaratus*. Les épines du manteau de ces espèces.

**Burrows R. B.** - Further Observations on Parasitism in the Starfish [*Observationes novae de parasitismo in Asteriis*]. Science, LXXXIV, 2180, 329. New York (1936). **b - 646**

Report on observations carried out during 1936 at Milford Laboratory of the Bureau of Fisheries on *Orchitophrya stellarum* Cépède, a gonad parasite of *Asterias forbesi*.

**Chabanaud P.** - Multiplication tératologique de la papille urino-génitale chez un mâle de *Brachirus muelleri* Steindachner (*Pleuronectoidea Soleidae*) [*Multiplicatio teratologica papillarum urogenitalium in masculo speciei « Brachirus muelleri »*]. 1 fig., Bull. Mus. Nat. Hist., Natur., Sér., 2, VIII, 5, 394-397. Paris (1936). **b - 647**

Description d'un mâle provenant du British Museum affecté d'une multiplicité tératologique de sa papille urinogénitale possédant la papille normale et deux papilles surnuméraires. Relations et fonctionnement de ces 3 organes.

**Chalaux J.** - A propos d'une comatule à douze bras [*Quaestio de comatula duodecim cirris praedita*]. 3 fig., Bull. Soc. Scient. Bretagne, XI, 91-94. Rennes (1934). **b - 648**

Il s'agit d'un *Antedon mediterranea* de Banyuls, qui possède un radius supplémentaire.

**Chandler A. C.** - Parasites of Fishes in Galveston Bay [*Parasiti Piscium in baja* Galveston]. 7 pls., table, Proc. U. S. Nat. Mus., LXXXIII, 2977, 123-157. Washington (1935). **b - 649**

Referring to her work in 1933 A. here describes two new genera and 20 new species of worms. Table of hosts and parasites.

**Chatton E. & Brachon S.** - Sur un Protiste parasite du Cilié *Fabrea salina* Henneguy: *Gregarella fabrearum* n. gen., n. sp., et son évolution [*De Protista « Gregarella fabrearum » parasito in Ciliato « Fabrea salina ». Agitur etiam de eius evolutione*]. C. R. Acad. Sc., CCIII, 11, 525-527. Paris (1936). **b - 650**

L'évolution de cette nouvelle espèce qui constituera le type de la famille *Gregarellidae*, dans un groupe des *Apomastigina* que les A.A. proposent d'annexer aux *Flagellata*.

**Chen C. S. & Kao T. P.** - Investigation into the Cause of the premature Death of the Razor Clam, *Sinovacula constricta* Lamarck [*Investigationes de causa mortis praematurae speciei « Sinovacula constricta »*]. (In Chin., Engl. Rés.). 10 figs., 5 tabl., Bull. Chekiang Prov. Fish. Exper. Stat. Tinghai, II, 1, 1-14. Tinghai (1936). **b - 651**

This mortality seems to be due to high specific gravity and disappearance of the diatom *Pleurosigma affine* on which the razor clam feeds. Further research work is however necessary to determine the importance of one or both factors together.

**Claussen L.** - Mikrosporidieninfektion beim gefleckten Seewolf [*Microsporidia. Quaestio de infectione in specie « Anarrhichas minor »*]. Dtsch. tierärztl. Wschr., 307-310. Berlin (1936). **b - 652**

Beschreibung einer Infektion mit *Plistophora ehrenbaumi*.

**Damas D.** - Une narcoméduse parasite d'un ver polychète [*Narcomedusa quaedam parasitica in verme polychaeto*]. 3 tab., 4 pls., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 1177-1193. Bruxelles (1936). **b - 653**

Dans le matériel pélagique de la campagne atlantique de l'« Armauer Hansen » l'A. a trouvé dans la cavité coelomique de certains *Tomopteris Nisseni* (Rosa) des Hydrozoaires bourgeonnant, qui se transforment en Narcoméduses. Etude sur le mode d'infection du ver, premiers stades connus: formation de la planula et sa transformation en polype et après en méduses. Mode de nutrition du parasite; influence du parasite sur son hôte et castration parasitaire. La méduse parasite de *Tomopteris* appartient à l'espèce *Cunina lativentris*: sa distribution.

**Datta M. N. & Poddar T. N.** - Acanthocephalan Parasites of Certain Fishes from Calcutta [*Parasiti acanthocephali aliquorum Piscium in Calcutta*]. 3 figs., 1 pl., Records Ind. Mus., XXXVII, 2, 231-236. Calcutta (1935). **b - 654**

Description of *Acanthogyrus acanthogyrus* Thapar and *Pallisentis nagpurensis* (Bhalerao) found in the intestines of *Lubeo rohita* (Ham.) and *Ophiocephalus striatus* Bloch.

**Delphy J.** - Sur quelques Anoplophryimorphes [*De quibusdam Anoplophryimorphis*]. 17 fig., Bull. Mus. Nat. Hist. Natur., Sér. 2, VIII, 5, 435-442. Paris (1936). **b - 655**

Descriptions et mises au point anatomiques de 5 genres de ces Protozoaires parasites et parmi eux *Anglasia* nov. gen. *Magdalenae* nov. sp. dans l'intestin de *Tubifex* provenant des côtes de la Hague.

**Duboscq O. & Tuzet O.** - *Topsentella fallax* n. g., n. sp., parasite du mésenchyme de *Sycon raphanus* O. S. [*« Topsentella fallax » parasitica in mesenchymate speciei « Sycon raphanus »*]. 4 fig., Arch. Zool. Exp. et Gén., LXXVIII, 3, 137-144. Paris (1936). **b - 656**

Description de cette amibe qui n'avait pas été reconnue jusqu'à présent. Elle pourrait être rapportée aux Chytridinées.

**Fowell R.** - Observations on the *Sporozoa* inhabiting the Gut of the Polychaete Worm, *Polydora flava* Claparède [*Observationes circa Sporozoa quae infestant intestinum Vermis polychaeti « Polydora flava »*]. 22 figs., Parasitol., XXVIII, 3, 414-430. London (1936). **b - 657**

This is the first record, from an annelid worm, of a parasite which resembles the *Coccidia* occurring in higher animals and the first record of an intranuclear parasite from an annelid. Description of *Selenidium axiferens* which differs from all other species, hitherto recorded, by having an axial tube which completely encloses the nucleus and extends from one end of the organism to the other.

**Harant H.** - *Nephrococcidioides* n. gen. Mycochytridinée parasite des Styélidés (*Ascidies stolidobranches*) [*« Nephrococcidioides » n. gen., parasitus in Styelidis*]. 2 fig., Bull. Inst. Océanogr., 690, 1-4. Monaco (1936). **b - 658**

Sur la base de l'examen des ampoules pyloriques de *Styela partita* St. contenant des corps parasitaires, l'A. a pu comprendre les affinités de ce parasite et le rapprocher des prétendues Chytridinées parasites du rein des Molgules. Il a créé pour cet organisme un genre nouveau *Nephrococcidioides* n. gen. dont l'espèce type est donc N. *legeri* (Harant 1931).

**Kahl W.** - Ueber den Befall des Stints mit Larven des Fadenwurms *Porrocaecum decipiens* [*De infestatione speciei « Osmerus eperlanus » per Nematodem « Porrocaecum decipiens »*]. Fischmarkt, IV, 7, 177-181. Cuxhaven (1936). **b - 659**

Verhältnis zwischen der Lebensweise des Elbstints und der Befallerscheinung.

**Kahl W.** - Ueber eine Missbildung bei einem eingelieferten Seelachs [*Deformatio quaedam in specie capta « Gadus virens »*]. 1 Abb., Fischmarkt, IV, 8, 215-216. Cuxhaven (1936). **b - 660**

Mögliche Ursachen einer am Unterkiefer eines eingelieferten Köhlers sich befindenden Geschwulst von zylindrischer Form und mit einer unteren Öffnung.

**Kofoid A. & Bush M.** - The Life Cycle of *Parachaenia Myae* gen. nov., sp. nov., a Ciliate Parasitic in *Mya arenaria* L. from San Francisco Bay, California [*Cyclus vitalis Ciliati parasitici « Parachaenia myae » in « Mya arenaria » a S.cti Francisci baja provenienti*]. 29 figs., Bull. Mus. R. Hist. Natur. Belg., XII, 22, 1-15. Bruxelles (1936). **b - 661**

Morphology. Binary fission. Conjugation. Maturation and fertilization. Growth.

**Kuroda T.** - On Bacteriological Analysis of the Japanese Bloodyclam, *Anadara inflate* (Reeve) [*Bacteriologica analysis speciei « Anadara inflate »*]. (In Jap.; Engl. Rés.). 1 table, Bull. Jap. Soc. Scient. Fish., V, 3, 187-188. Tokyo (1936). **b - 662**

This is the first bacteriological study made on *Anadara inflate*. The results showing the *B. coli* score of shell oysters are expressed in a table.

**Lavier G.** - *Protoopalina Duboscqui* n. sp., Opaline parasite d'un Poisson marin [*« Protoopalina Duboscqui » parasitica in Pisce marino*]. 2 fig., Ann. Par. hum. et Comp., XIV, 272-277. Paris (1936). **b - 663**

Description de la mitose de ce parasite, rencontré dans le rectum de *Gadus capelanus* à Banyuls.

**Lavier G.** - Sur quelques Flagellés intestinaux de Poissons marins [*De Flagellatis intestinalibus Piscium marinorum*]. 2 fig., Ann. Par. hum. et Comp., XIV, 278-289. Paris (1936). **b - 664**

Liste des Flagellés parasites de *Box salpa*, *B. boops* et de différentes espèces de *Motella*.

**Leigh - Sharpe W. H.** - New Parasitic Copepoda from Naples [*Copepoda nova parasitica Neapolitana*]. 9 figs., Parasitol., XXVIII, 1, 63-71. London (1936). **b - 665**

Five new species and one new genus are listed and described with indication of host, location and date.

**Markowski S.** - Ueber die Trematodenfauna der baltischen Molluskenfauna aus der Umgebung der Halbinsel Hel [*Trematoda. Quaestio de eorum fauna in Molluscis Balticis circum paeninsulam* Hel]. 3 pl., 3 tab., Bull. Int. Acad. Polon. Sc. & Lettr., Cl. Sc. Mathém. & Natur., 5/7, B II, 285-317. Cracovie (1936). **b - 666**

Von den hier untersuchten Mollusken gehört die eine Hälfte zu *Gastropoda* und die andere Hälfte zu *Lamellibranchiata*, wie in drei übersichtlichen Tabellen mit Angabe von Wirtstieren, Parasiten, Fangort und Anzahl von Infektionsfällen bei einzelnen Molluskenarten angegeben wird. Im systematischen Teil folgt eine systematische Anordnung der vom Vf. gefundenen Larvalstadien der Trematoden (Zerkarien und Metazerkarien), welche fast alle ihre endgültige Entwicklung in Wasservögeln finden. Die Wirkung der Parasiten auf die Mollusken.

**Marquard O.** - Kopfmissbildungen an Dorschen der Ostsee [*Capitis abnormitates in specie « Gadus morrhua » Maris Baltici observatae*]. 9 Abb., Ztschr. f. Fisch., XXXIV, 2, 249-256. Neudamm & Berlin (1936). **b - 667**

Die Deformation tritt am stärksten am Oberkiefer, an der oberen Kopfgegend auf. Sechs verschiedene Missbildungen sind hier abgebildet. Versuch zur Erklärung dieser Anomalien.

**Matubayasi H.** - *Eimeria* Parasitic in Marine Fishes [« *Eimeria* » *parasitica in Piscibus marinis*]. (In Jap., Engl. Rés.). 39 figs., Keijo Igaku, XV, 9, 1281-1300. Keijo (1935). **b - 668**

Spherical oöcysts of *Eimeria* have been found in the livers of *Trachurus trachurus*, *Cololabis saira* and *Sardinia melanosticta*. Detailed study of the sporogony of *Eimeria*.

**Mc Farlane S. H.** - A Study of the Endoparasitic Trematodes from Marine Fishes of Departure Bay, B. C. [*Trematoda endoparasitica in Piscibus marinis bajae* Departure *in Columbia Britannica*]. 3 figs., 6 tables, Journ. Biol. Bd. Canada, II, 4, 335-347. Toronto (1936). **b - 669**

Fifteen species of endoparasitic trematodes of marine fishes of Departure Bay, B. C., are described, the following eight species are new to science: *Prosorhynchus scalpellus* n. sp., *P. apertus* n. sp., *Rhipidocotyle elongatum* n. sp., *Podocotyle abitionis* n. sp., *Stephonostomum tristephanum* n. sp., *Deretrema cholaeum* n. sp., *Dinurus nanaimoensis* n. sp., *Lecithochirium exodicum* n. sp. The fish examined were the most common shallow water species that could be obtained by a seine.

**Nie D.** - Studies of the Intestinal Ciliates of Sea Urchin from Amoy [*De Ciliatis intestinalibus in Echinis ad regionem* Amoy *pertinentibus*]. 9 figs., Ann. Rep. Mar. Biol. Ass. China, III, 81-90 (?). (1934). **b - 670**

Six ciliates recorded in *Heliocidaris crassispina*, of which *Cryptochilidium polynucleatum* and *Cyclidium amoyensis* are new to the host.

**Nigrelli R. F.** - The Morphology, Cytology and Life-history of *Oodinium ocellatum* Brown, a Dinoflagellate Parasite on Marine Fishes [*De morphologia, cytologia, et cyclo vitali Dinoflagellati parasitici « Oodinium ocellatum » in Piscibus marinis*]. 5 figs., 9 pls., Zoologica, XXI, part 3. 12/18, 129-164. New York (1936). **b - 671**

*Oodinium ocellatum* is the first known dinoflagellate parasite of vertebrates recorded in 1931-1934 by Brown from the gills and skin of marine fishes of the East and West Indies. In the present paper are reported attacks also on the spiny boxfish and the common puffer. Bibl.

**Nybelin O.** - *Bunocotyle cingulata* Odhner - ein halophiler Trematode des Flussbarsches und Kaulbarsches der Ostsee [*« Bunocotyle cingulata » trematodes halophilus speciei « Perca fluviatilis » et « Acerina cernua » maris Baltici*]. 1 Karte, 1 Tab., Ark. f. Zool., XXVIII B, H. 3, 10, 1-6. Stockholm (1936). **b - 672**

Dieser Trematode war bisher nur als Magenparasit mariner Fische der Familie *Hemiuridae* bekannt. Hier werden neue Wirte und Fundorte in dem Brackwassergebiet an der schwedischen Ostküste angegeben. Versuch zur Erklärung dieser eigentümlichen Verbreitung.

**Okada Yo. K.** - An *Octopus* with branched Arms and the Mode of Branching [*De « Octopus » cirris ramificatis deque eorum constitutione*]. 2 pls., 10 figs., Annot. Zool. Jap., XV, 1, 5-27. Tokyo (1935). **b - 673**

Study on specimens of *Polypus vulgaris* in which 7 of the 8 arms branch more than once.

**Palombi A.** - *Eugymnanthea inquilina* nuova leptomedusa derivante da un atecato idroide ospite interno di *Tapes decussatus* L. [*« Eugymnanthea inquilina » nova leptomedusa ab athecato quodam hydroide derivans hospes interna speciei « Tapes decussatus »*]. 8 fig., 1 tav., Pubbl. Staz. Zool. Napoli, XV, 2, 159-168. Napoli (1936). **b - 674**

Caratteri diagnostici di *Eugymnanthea inquilina* nov. gen. nov. sp. Aspetto esterno e struttura anatomica ed istologica del polipo e della medusoide. La frequenza di *E. inquilina* in *T. decussatus* del Lago Fusaro e del Golfo di Napoli.

**Patten R.** - Notes on a new Protozoon *Piridium sociabile* n. gen., n. sp., from the Foot of *Buccinum undatum* [*Protozoon novum « Piridium sociabile » in pede speciei « Buccinum undatum »*]. 15 figs., Pasasitol., XXVIII, 4, 502-516. London (1936). **b - 675**

Microscopic examination of white patches on the ventral surface of the foot of *Buccinum undatum*, showed that these were composed of some organisms belonging to a new species *Piridium sociabile*. How infestation takes place.

**Powers B. A.** - Studies on the Ciliates of Sea-Urchins. A General Survey of the Infestations occurring in Tortugas Echinoids [*Studia de Ciliatis in Echinis. Conspectus generalis infestationum in Echinoideis insulae* Tortugas]. 2 pls., o. t., 14 figs., 3 tabl., Pap. Tortugas Labor., XXIX, 295-326. Washington (1936). **b - 676**

Description of 12 species of Ciliates (6 new spp., 1 nov. nom. and undet. sp.) infesting the alimentary tract of seven species of sea-urchins. Five of these species show a marked host specificity, the remaining seven species a definite host preference and all of these ciliates are associated with their host when the latter are found occurring near the tide line. The nature of this infestation is one of endocommensalism. Geographical distribution of the ciliates infesting sea-urchins from the localities of Beaufort, N. Carolina, Bermuda and Tortugas.

**Raabe H.** - Etude de Microorganismes parasites des poissons de Mer. I *Nosema ovoideum.* Thél. dans le foie des Rougets [*De microrganismis parasitis Piscium marinorum. I.* « *Nosema ovoideum* » *in hepate speciei* « *Mullus barbatus* »]. 7 fig., Bull. Inst. Océanogr., 696, 1-11. Monaco (1936). **b - 677**

En disséquant des *Mullus barbatus*, l'A. a remarqué que leur foie était complètement dégénéré et il a constaté la présence de nombreux stades évolutifs des Myxosporidies dans les cellules hépatiques.

**Rees W. J.** - Note on the Ubiquitous Cercaria from *Littorina rudis*, *L. obtusata* and *L. littorea* [*Notae de Cercariis praesentibus in* « *Littorina rudis* », « *L. obtusata* » *et* « *L. littorea* »]. 1 fig., Journ. Mar. Biol. Ass., XX, 3, 621-624. Plymouth (1936). **b - 678**

Measurements of the present specimens compared with those of Stunkard; general anatomy; life history.

**Renn C. E.** - The wasting Disease of *Zostera marina* [*Morbus vastator speciei* « *Zostera marina* »]. 7 figs., 2 tabls., Biol. Bull., LXX, 1, 148-158. Lancaster, Pa. (1936). **b - 679**

Account of the investigations on the pathology of the diseased plant and on the specific parasitic nature of the infecting parasite, an unidentified *Labyrinthula.*

**Renn C. E.** - Persistence of the Eel-Grass Disease and Parasite on the American Atlantic Coast [*Morbus speciei* « *Zostera marina* » *infestatae a parasitis persistit in litoribus americanis Oceani Atlantici*]. Nature, CXXXVIII, 3490, 507-508. London (1936). **b - 680**

A. describes the seasonal cycle of development of *Zostera* with the parasite *Labyrinthula.*

**Rothschild M.** - Gigantism and Variation in *Peringia ulvae* Pennant 1777, caused by Infection with Larval Trematodes [*De gigantismo et variatione in specie* « *Peringia ulvae* » *infectionis causa Trematodis larvalis*]. 2 figs., 3 tabl., Journ. Mar. Biol. Ass., XX, 3, 537-576. Plymouth (1936). **b - 681**

The observations on *Peringia ulvae* strongly support the view of Wesenberg-Lund that parasitism is responsible for an abnormal increase in the size of the host, although it seems more likely that this is brought about by the destruction of the gonads and other glands rather than in the manner suggested by him. The variation in the shell and asymmetrical development of the spire is probably due to the pressure exerted by the parasites from within. (From A: s summ.).

**Scheuring L.** - Ursachen für Massen-Fischsterben in Gegenwart und Vorzeit [*Causae mortis Piscium hodierno tempore et tempore praehistorico*]. 2 Abb., Nat. u. Volk, LXVI, 7, 357-362. Frankfurt a. M. (1936). **b - 682**

Einige Beispiele mit Erörterung der Ursachen aus fossilen Ablagerungen, aus dem Kurischen Haff, aus dem Atlantischen Meer (*Lopholotilus*) sowie aus vielen Binnengewässern.

**Schuurmans Stekhoven Jr.** - Copepoda Parasitica from the Belgian Coast II. (included some Habitats in the North Sea) [*Copepoda parasitica in litoribus Belgicis. II.* (*Includuntur habitat Maris Nordici*)]. 5 pls. o. t., Mém. Mus. R. Hist. Natur., 74, 1-20. Bruxelles (1936). **b - 683**

Description of 14 species with special reference to the oral extremities and the variation of the antlers of *Lernaeocera branchialis* which have not before been described.

**Souche G.** - Sur un poisson à oeil unique [*Piscis quidam monoculus*]. 2 fig., Bull. Stat. Biol. d'Arcachon, XXXII, 1, 39-41. Bordeaux (1935). **b - 684**

Description détaillée de l'exemplaire, *Sciaena aquila* Cuv. qui provient du marché de Bordeaux. Comparaison entre le côté normal et le côté anormal, structure de l'œil, musculature et nerfs.

**Souche G.** - Sur une anomalie constatée chez un *Gadus luscus* L. [*De anomalia perpensa in specie* « *Gadus luscus* »]. 2 fig., Bull. Stat. Biol. d'Archachon, XXXII, 1, 43-44. Bordeaux (1935). **b - 685**

Description de cet exemplaire, dont la tête était anormalement raccourcie.

**Srivastava H. D.** - New Allocreadids (*Trematoda*) from Indian marine Fishes. Part II. New Parasites of the Genus *Decemtestis* Yamaguti [*Allocreadida nova* (*Trematoda*) *in Piscibus marinis Indianis. Pars II. Parasiti novi ad genus* « *Decemtestis*» Yamaguti *pertinentes*]. 3 fig., Proc. Nat. Acad. Sc. India, VI, 187-195. (?) (1936). **b - 686**

*Decemtestis biacetabulata* very common among the fishes of the Gulf of Bengal.

**Stevens N. E.** - Environmental Conditions and the Wasting Disease of Eel-grass [*Condiciones ambientales et morbus destructor speciei* « *Zostera marina* »]. 1 graph, 1 table, Science, LXXXIV, 2169, 87-89. New York (1936). **b - 687**

Some suggestions of possible causes: apparent inadequacy of given explanations, periodicity in eel grass scarcity, declination of the moon, transgressions in the Atlantic Ocean.

**Subrahmanian K.** - Studies on the Acanthocephalan Fauna of Burma [*Studia de fauna Acanthocephalorum regionis* Burma]. 4 figs., Rec. Ind. Mus., XXXVIII, 3, 311-315. Calcutta (1936). **b - 688**

Description of female and male of *Pallisentis nagpurentis* (Bhalerao 1931) found in *Ophiocephalus striatus.* According to the A. the genus *Pallisentis* Van Cleave 1928 is a synonym of the genus *Neosentis* Van Cleave 1928.

**Wilson C. B.** - Parasitic Copepods from the Pacific Coast [*Copepoda parasitica reperta in litoribus Oceani Pacifici*]. 6 pls., Amer. Midland Natur., XVI, 5, 776-797. Notre Dame, Ind. (1935). **b - 689**

Annotated list on 8 new species with hosts.

**Wilson C. B.** - Parasitic Copepods from the Dry Tortugas [*Copepoda parasitica in* Dry Tortugas]. 6 pls. o. t., Pap. Tortugas Labor., XXIX, 329-347. Washington (1936). **b - 690**

About 40 species are listed with hosts, 7 species new to science are described and two others have been made the types of new genera. Proof of the statement that *Specilligus curticaudis* described as a new genus and species by Dana 80 years ago is the copepodid stage of the male of *Pandalus cranchii.* Most of the species come from the waters around the Dry Tortugas, the Bahamas, the Bermudas or the West Indies.

**Woolcock V.** - *Chloromyxum pristiophori*, a New Species of *Myxosporidia* parasitic in the Gall-Bladder of *Pristiophorus cirratus* (Saw-Shark) [« *Chloromyxum pristiophori* » *ex Myxosporidiis*

*parasitica species in vesica fellis speciei « Pristiophorus cirratus »*]. 2 pls., Parasitol., XXVIII, 1, 72-78. London (1936). **b - 691**

The material under examination was collected from Port Bay Victoria. Morphology and cytology: vegetative form, the spore. Metods of propagation: asexual, sexual (spore formation)

**Woolcock V.** - Monogenetic Trematodes from some Australian Fishes [*Trematoda monogenetica aliquorum Piscium australiensium*]. 1 pl., 4 figs., Parasitol., XXVIII, 1, 79-91. London (1936). **b - 692**

Description of 5 species, 4 of which are new: *Megalocotyle helicoleni*, n. sp. *Calicotyle inermis* n. sp., *Microcotyle sillaginae* n. sp., and *Microcotyle victoriae* n. sp.

**Yamaguti Satyû** - Parasitic Copepods from Mollusks of Japan. I [*Copepoda parasitica in Molluscis Japonicis. I*]. 7 pls. o. t., Jap. Journ. Zool., Trans. & Abstr., VII, 1, 113-127. Tokyo (1936). **b - 693**

Seven species are described, of which only one is already known from New Guinea and all the others are new belonging to two known families. *Clausiidae* and *Lichomolgidae* and to one new family, *Myicolidae*.

**Zariquiey Cenarro R.** - *Balssia gasti* (Balss) en la costa catalana (Crust. Dec.) [« *Balssia gasti* » *in litoribus Catalanis*]. 14 fig., Eos, XI, 101-107. Madrid (1935). **b - 694**

*Balssia gasti* ♂ ha sido encontrado en la costa catalana, captura mas interessante porque no eran conocidos los caracteres de este sexo. Este ejemplar ha sido recogido sobra un coral rojo.

**Zlateff I.** - Ueber einige Krankheiten unserer Fische [*De morbis nostrorum Piscium*]. (In Bulg. u. Dtsch.). Arb. Biol. Meeresstat. Schwarz. Meer Varna, Bulg. 5, 67-80. Sofia (1936). **b - 695**

Unter den hier behandelten Arten sind auch zu bemerken: *Trigla hirundo* mit Zysten von *Glugea Hertwigi* im Unterhautgewebe, *Pleuronectes flesus* mit *Glugea stephani* in der Darmwand, *Temnodon saltator* mit *Philometra marie* unter der Schleimhaut des Eierstocks, *Scomber scomber* mit *Cystoopsis scomber* an der Kiemendeckel, *Alosa nordmani* und *Alosa pontica* mit resp. *Ancherola emarginata* und *Ergasilus siboldi* auf den Kiemen.

**An.** - Government Making Study of Oyster Industry in New England in Order to Prevent Heavy Losses Caused by the Starfish Scourge [*Status studia promovet de industria ostrearum Novae Angliae ut flagellum stellarum marinarum intercludatur*]. Fish & Oyst. Rep., XVII, 4, 7. Tampa, Fla. (1936). **b - 696**

Practical method involving the use of carbon monoxyde in order to exterminate the starfish, which attack infant oysters and cause severe losses to oyster beds in New England.

**An.** - Parasites Infest Oysters in South Carolina [*Parasiti qui ostreas infestant in* South Carolina]. Fish & Oyst. Rep., XVII, 5, 16. Tampa, Fla. (1936). **b - 697**

Brief account of a survey conducted for the U. S. Bureau of Fisheries showing that more than 40 per cent of the oysters below low water mark in South Carolina are infested by boring sponges.

# PLANCTON ET BENTHOS

## Zooplancton et Phytoplancton - Distributio et valor.

**Allen W. E.** - Boat Catches of marine Phytoplankton in Southern California in 1928 [*De capturis peractis a scaphis idoneis ad plancton marinum colligendum in California merid. A. 1928*]. Amer. Journ. Bot., XXI, 66-68. Lancaster, Pa. (1934). **b - 698**

**Allen W. E.** - Occurrence of Marine Plankton Diatoms in a ten-year Series of daily Catches in Southern California [*Diatomeae planctonicae marinae repertae ex investigationibus cotidianis per decem annos in California merid.*]. Amer. Journ. Bot., XXIII, 1, 60-63. Lancaster, Pa. (1936). **b - 699**

Maximum production in spring, parallel changes in abundance between inshore and offshore, differences in productions and factors related. Leading species.

**Allen W. E.** - Surface Plankton Diatoms in the North Pacific Ocean in 1934 [*Diatomeae planctonicae ad superficiem Oceani Pacifici Septentr. A. 1934*]. Madroño, III, 6, 1-3. S. Francisco (1936). **b - 700**

Preliminary report on investigations undertaken in the summer of 1934 around the Gulf of Alaska and southward from the Aleutian Islands to the Hawaiian Islands. New records of occurrence of interest for further research.

**Allen W. E., Cupp E. E. & Easter E. C.** - Plankton Diatoms of the Java Sea [*Diatomeae planctonicae maris Javae*]. 127 figs., Ann. Jard. Bot. Buitenzorg, XLIV, 2, 101-224. Buitenzorg (1935). **b - 701**

Descriptions and figures of 127 spp. and varieties belonging to 40 genera of *Centricae* and *Pennatae*. Comparisons with the plankton diatoms of the Eastern Pacific, especially in California waters.

**Bernard F. & Fage L.** - Recherches quantitatives sur le plancton méditerranéen [*Investigationes quantitativae in plancton mediterraneum*]. 2 tabl., Bull. Inst. Océanogr., 701, 1-20. Monaco (1936). **b -702**

Recherches entreprises dans le but de déterminer la valeur du stock biologique de la Méditerranée en relation avec les quantités de nitrates et de phosphates dissous. Aperçu historique sur les premières recherches et sur les résultats; méthodes employées pour le dosage du nannoplancton, choix des stations. On constate une grande pauvreté en Diatomées et Péridiniens et une richesse relative en Flagellés.

**Ercegović A.** - Etudes qualitatives et quantitatives du phytoplancton dans les eaux cotières de l'Adriatique Oriental moyen au cours de l'année 1934 [*Studia qualitativa et quantitativa de phytoplancton in aquis litoreis maris Hadriatici orientalis medii A. 1934*]. 19 figs., 18 tab., 126 pp. Acta Adriatica, 9. Split (1936). **b - 703**

L'A. a étudié les variations de la population phytoplanctonique au cours de l'année 1934 en relation avec les facteurs physicochimiques. Liste des espèces recoltées: Bacillariacées, Coccolithinés, Silicoflagellées, et Dinoflagellées qui présentent les caractères écologiques des végétations d'eaux tempérées-chaudes. Notes sur la production qualitative et quantitative des eaux étudiées, sur la répartition de la masse planctonique et sur les facteurs de la production planctonique. Bibl.

**Gaarder T.** - Planteplankton– produktionen i havet [*De productione phytoplanctonica marina*]. (In Norv.). Naturen, LX, 5, 150-157. Bergen (1936). **b - 704**

Variations in the quantitative plancton production and factors concerned according to theories of Brandt, Nathanson, Gran, Nansen; methods of Atkins and Harvey.

**Gourbounov G. P.** - Les collections benthoniques [*Collectio substantiae benthonicae*]. (En russe). Troudy Tajmyrsk. Ghidrogr. Exped. (Trav. Expéd. Hydrogr. Tajmyr), II, 203-210. Leningrad (1935). **b - 705**

**Gran H. H., Hentschel E. & Russell F. S.** - Handliste zur Sicherung der Bestimmungen nordischen Planktons [*Elenchus, inspiciendi causa redactus, determinationum planctonicarum maris septentr.*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 3ème partie, 15-20. Copenhague (1936). **b - 706**

Erklärende Bemerkungen. Verzeichnis der Arten.

**Hardy A. C.** - The Ecological Relations between the Herring and the Plankton investigated with the Plankton Indicator. Part I. The Object, Plan and Methods of the Investigation [*Correlationes oecologicae inter Aringos et substantiam planctonicam, perpensae instrumenti auxilio quod dicitur « Indicator planctonicus ». Pars I : Ratio, proposita, methodus investigationum*]. 10 figs., 4 tabl., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 147-177. Plymouth (1936). **b - 707**

Description of the improved plankton indicator. Sampling methods and their validity. The commercial application of the indicator.

**Hardy A. C., Farran G. P., Garstang W. & Georgeson E.** - The Arctic Plankton collected by the Nautilus-Expedition, 1931. Part I. General Account. Part II. Report on the Copepoda. Part III. Report on the Appendicularians [*De arctica substantia planctonica collecta ab expeditione navis* « Nautilus », *A. 1931. Pars I. Relatio generalis. Pars II: Relatio de Copepodis. Pars III: Relatio de Appendiculariis*]. Journ. Linn. Soc. Zool., 39, 391-412. London (1936). **b - 708**

The catches of the phytoplankton have been made from the margin of the pack-ice at a depth of 250 m. north of Spitzbergen: 14 typical arctic Diatoms, 8 Dinoflagellates and 1 *Chrysomonadinae. Metazoa*: 1 Medusa, 1 *Siphonophora*, 1 *Ctenophora*, 2 *Chaetognata*, 16 *Copepoda*, 1 *Amphipoda*, 1 *Pteropoda*, and 1 Appendicularian.

**Henderson G. T. D.** - The Ecological Relations between the Herring and the Plankton investigated with the Plankton Indicator. Part III. The Zooplankton - Herring Correlations in the Scottish Fisheries [*Correlationes oecologicae inter Aringos et substantiam planctonicam, perpensae instrumenti auxilio quod dicitur « Indicator planctonicus ». Pars III: Correlationes inter substantiam zooplanctonicam et aringos pro piscatione Scota*]. 7 figs., 18 tabl., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 243-276. Plymouth (1936). **b - 709**

Account of investigations undertaken in Scottish waters north of latitude 56° N. divided in two areas, Eastern and Western Fisheries during 1930-1933 as well as in Irish waters in 1931. The results obtained show more positive than negative Herring-*Calanus* correlations of which however further studies will be necessary to get a clear idea of the seasonal variations in this degree. Discussion on the abundance and distribution of *Calanus*, *Limacina* and some other plankton-forms. The value of the plankton-indicator.

**Henderson G. T. D., Lucas C. E. & Fraser J. H.** - The Ecological Relations between the Herring and the Plankton investigated with the Plankton Indicator. Part IV. The Relation between Catches of Herring and Phytoplankton Collected by the Plankton Indicator [*Correlationes oecologicae inter Aringos et substantiam planctonicam, perpensae instrumenti auxilio quod dicitur « Indicator planctonicus ». Pars IV. Correlatio inter Aringorum capturas et phytoplanctonicam substantiam collectam per instrumentum cui nomen est « Indicator planctonicus »*]. 4 figs., 7 tabl., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 277-291. Plymouth (1936). **b - 710**

Analysis of catches made and comparison between those. The results obtained show a negative correlation between the herring and dense patches of phytoplankton and between phytoplankton and the associated numbers of *Calanus* and *Limacina*, the significance of which is discussed. The value of the miniature indicator for fishermen.

**Hentschel E.** - Ueber das Winterplankton im Süden von Island [*De substantia planctonica hiemali in Islandiae regione meridionali*]. (In Dtsch., Engl. Rés.). 15 Abb., 6 Tab., Cons. Expl. Mer., Rapp. & Pr.-Verb., XCIX, Rapp. Atlant. 1933-35, I, 1-33. Copenhague (1936). **b - 711**

I. Das Plankton der südisländischen Gewässer. II. Das Plankton im Bereich der Vestmanna-Fischerei. III. Das Plankton der Fahrtlinie Vestmannainseln-Färöer-Schetlandinseln. IV. Allgemeines über das Winterplankton. Schriftenverzeichnis. Die Reise des Vermessungschiffes « Meteor », deren Ergebnisse der vorliegenden Untersuchung zu Grunde liegen, dauerte vom 19. Februar bis zum 30. März 1935.

**Höglund H. & Landberg S.** - Further Investigations upon the Photosynthesis of Phyto-Plankton by Constant Illumination [*Investigationes ulteriores in photosynthesim phytoplanctonicam, luce constanti*]. 3 tabl., Cons. Expl. Mer., Rapp. & Pr.-Verb., XCV, 32-33. Copenhague (1936). **b - 712**

These investigations continue those carried out during the spring 1934. (See H. Pettersson, H. Höglund and S. Landberg; « Submarine daylight and the photosynthesis of Phytoplankton », in Medd. Göteborgs Högskolas Oceanogr. Inst. n. 10, Göteborg, 1934).

**Johnstone J., Scott A. & Chadwick H. C.** - The Marine Plankton with Special Reference to Investigations made at Port Erin, Isle of Man, during 1907-1914. 3 rd. reprint [*De substantia planctonica marina. Agitur particulatim de investigationibus peractis in* Port Erin, *Insula* Man *ab A. 1907 ad A. 1914*]. 194 pp., The Univ. Press of Liverpool, Ltd. London (1934). **b - 713**

Description of various plankton types, their distribution and relation between organic production and plancton. In an appendix the various types of plankton nets and methods of collection as well as methods of the estimation of the catch are dealt with. This book is of great value for students and researchers in marine plankton.

**Khmyznikova V. L.** - Quelques données sur le zooplancton des détroits orientaux et de la partie Nord de la Mer de Kara [*Data de substantia zooplanctonica in fretis orientalibus et regione nordica Maris Karensis*]. (En russe). Fig., tabl.,

Troudy Tajmyrsk. Ghidrogr. Exped. (Trav. Expéd. Hydrogr. Tajmyr), II, 175-190. Leningrad (1935).
**b - 714**

**Khmyznikova V. L.** - The Zooplancton of the Kara Sea as biological Indicator of Currents [*De zooplancton Maris Karensis ac indicatore biologico currentiarum*]. (In Russ., Engl. Rés.). 1 map, Sev. morsk. putj., IV, 68-75. Leningrad-Moskva (1936).
**b - 715**

**Kisselev I. A.** - Quelques données sur le phytoplankton de la partie nord-orientale de la Mer de Kara [*Data de phytoplanctonica substantia in regione nord-orientali Maris Karensis*]. (En russe). Troudy Tajmyrsk. Ghidrogr. Exped. (Trav. Expéd. Hydrogr. Tajmyr), II, 191-202. Leningrad (1935).
**b - 716**

**Kossiackina E. G.** - The Vertical Distribution of Zooplankton in the Bay of Novorrossiysk [*Distributio verticalis zooplanctonica in baja* Novorossiysk]. (In Russ., Engl. Rés.). 2 tabl., 3 tabl. o. pl., Works Arnoldi Biol. Stat,, II, 1, 55-67. Novorossiysk (1936).
**b - 717**

Variations in the systematical composition of the zooplankton during the different seasons; influence of temperature, light, gas, nourishment, etc.

**Lucas C. E.** - The Ecological Relations between the Herring and the Plankton investigated with the Plankton Indicator. Part II. Zooplankton-Herring Correlations in the English Fisheries [*Correlationes oecologicae inter Aringos et substantiam planctonicam perpensae instrumenti auxilio quod dicitur « Indicator planctonicus ». Pars II. Correlationes inter substantiam zooplanctonicam et Aringos pro piscatione Anglica*]. 24 figs., 11 tabl., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 178-242. Plymouth (1936).
**b - 718**

*Calanus*-Herring correlations. The commercial significance of the *Calanus* correlations. *Calanus* and the feeding of the herring. Seasonal differences and hydrological consideration. The *Limacina*- Herring correlations. Notes on the plankton taken with the indicator off the East coast of England. The plankton community as a whole and the feeding of the herring.

**Mikhaylovskaya Z. N.** - Phytoplankton of the Bay of Novorossiysk and its Vertical Distribution [*De substantia phytoplanctonica in baja* Novorossiysk *eiusque distributione verticali*]. (In Russ.; Engl. Rés.). 10 tabl., 3 tabl. o. pl., 1 fig., Works Arnoldi Biol. Stat., II, 1, 37-54. Novorossiysk (1936).
**b - 719**

Report on the investigations carried out in 1934: 111 neritical as well as oceanic species of *Diatomaceae*, *Dinoflagellatae*, *Silicoflagellatae*, *Cyanophyceae* and *Chlorophyceae*; great number of species having a small number of forms. Peculiar features noted in the vertical distribution during the period of « flourishing », and hydrographical factors concerned.

**Pavillard J.** - Remarques sur le Phyto-plankton du Pacifique intertropical [*Notae de substantia phytoplanctonica Oceani Pacifici intertropicalis*]. Ecology, XVI, 3, 308-315. Brooklyn (1935).
**b - 720**

Résumé des recherches entreprises dans le Pacifique intertropicale depuis 1860. L'expédition du «Challenger» en 1875, la croisière de l'«Albatross» en 1904-1905, les travaux de la Scripps Institution en 1922-1934 et les recherches des Gerbault aux Iles Marquises en 1933.

**Pavillard J.** - Les Péridiniens et Diatomées pélagiques de la Mer de Monaco pendant les années 1909, 1910 et 1911 [*De Peridineis et Diatomeis pelagicis maris Arcis Monoeci A. 1909-1910 et 1911*]. Bull. Inst. Océanogr., 712, 1-6, Monaco (1936).
**b - 721**

Récoltes du Phytoplancton effectuées dans les parages maritimes de Monaco. En 9 tableaux sont synthétisées les espèces recueillies en surface et en profondeur, réparties par chaque mois.

**Russel F. S.** - A Review of Some Aspects of Zooplankton Research [*Conspectus de studiis planctonicis*]. 9 figs., 2 tables, Cons. Expl. Mer., Rapp. & Pr.-Verb., XCV, 5-30. Copenhague (1936).
**b - 722**

Study of the plankton animals as members of a community for the part they play by their habits and abundance in the balance of life in the sea, with special regard to *Metazoa*. 1. The plankton expedition in the « National » under the leadership of Hensen in 1889, 2. The scheme for the collection of plankton followed by the International Council during the years 1902 to 1908, 3. The completion by Lohmann in 1906 of a year's detailed survey of the total plankton production at Laboe in Kiel bay, and the post-war period.

**Russell F. S.** - The Importance of certain Plankton Animals as Indicators of Water Movements in the Western End of the English Channel [*Momentum aliquorum animalium planctonicorum ac indicatorum aquae motuum in parte occid. Freti Britannici*] 3 figs., Cons. Expl. Mer., Rapp. & Pr.-Verb., C, 3ème partie, 7-10. Copenhague (1936).
**b - 723**

It has been shown that the periodic changes in the occurrence of several plancton species are due to the movements of different water masses.

**Russell F. S.** - Observations on the Distribution of Plankton Animal Indicators made on Col. E. T. Peel's Yacht « St. George » in the Mouth of the English Channel, July, 1935 [*Observationes distributionis planctonicae ac indices aquae motuum peractae in pamphilo* « St. George », *ad* E. T. Peal *pertinenti, ad accessum Freti Britannici, mense Julio 1935*]. 6 figs., 5 tabl., Journ. Mar. Biol. Ass., XX, 3, 507-522. Plymouth (1936).
**b - 724**

Three bodies of water were clearly shown by their plankton content (described here). It has also been shown that the study of certain plankton animals should prove of help in understanding the hydrography of the Channel Mouth region (From A.: s summ).

**Savage R. E. & Wimpenny R. S.** - Phytoplankton and the Herring. Part II. 1933 and 1934 [*De substantia phytoplanctonica deque Aringis. Pars II. A. 1933 et 1934*]. 45 figs., 48 tabl., Min. Agric. Fish., Fish. Invest., Ser. 2, XV, 1, 3-88. H. M. Stat. Off. London (1936).
**b - 725**

The distribution of diatom patches in 1933 and 1934: I. *Rhizosolenia styliformis*, II. *Biddulphia sinensis*. The relation between the salinity distribution and the movements of the diatom patches in 1933 and in 1934. The general frequency of *R. styliformis* and *B. sinensis* in 1933-34 and earlier, related to hydrological conditions, and their conditions of cell division. The concentration of the herring fishery and its relation to phytoplankton patches. The relation between phytoplankton and certain animal communities. The 1933 diatom maximum and its possible effect on salinity. Vertical distribution. Discussion. Bibl.

**Schirschov P.** - The Plankton as Indicator of the Ice-Regime of the Sea (from the Hydro-Biological Work of the Expedition on the Ice-Breaker « Krassin » in 1935) [*De substantia planctonica ac indice regiminis glacierum marinarum (ex operibus biologicis peractis perdurante expeditione navis glacieiruptricis* « Krassin » *A. 1935*]. (In Russ. & Engl.). Bull. Arct. Inst., V, 11, 376-377, 411. Leningrad (1935). **b - 726**

Preliminary results of the work performed on board the ice-breaker « Krassin » in 1935 in order to solve the problem of the possibility of using the plankton as an indicator of the ice-régime of the sea, on hand of the phenomenon of the development (florescence) of the planktonic algae amidst the arctic ice. The results seem to confirm the possibility of using plankton for the forecasting of ice-condition in the arctic seas.

**Shell I. I.** - Use of Plankton in the Prognostication of Ice [*De utenda substantia planctonica in glacierum condicionibus providendis*]. Geogr. Rev., XXVI, 2, 332. New York (1936). **b - 727**

On hand of observations made aboard the « Lütke » on its Arctic voyage 1934 (See: « The Northeastern Passage of the Icebreaker « Lütke », Geogr. Rev., XXV, 339-340, 1935) and an interesting phenomenon observed in the Chukchee Sea by the hydrologist of the « Lütke » (See: « Meteor. Vestn. », XLV, 57, 1935) a well established relationship is shown between the amount of plankton and the distribution of ice, ocean currents, and other hydrological elements.

**Steeman Nielsen E.** - The Production of Phytoplankton at the Faroe Isles, Iceland, East Greenland and in the Waters around [*De productione phytoplanctonica in insulis* Faroe, *Islandia, Groenlandia orientali et in aquis propinquis*]. (In Engl.; Dan. Rés.). 5 charts, 2 figs., Tabl. Medd. Komm. Danm. Fisk- & Havunders. Serie Plankton, III, 1, 1–93. København (1935). **b - 728**

Previous investigations. Methods. The general hydrographic conditions. The distribution of Plankton in the various cruises (1932-34). The limiting factors for plankton production.

The annual plankton production in the various areas. Problems: Phytoplankton production and fish populations. Appendix: A description of *Fragilaria nana* n. sp.

**Steuer A.** - Die Entwicklung der deutschen marinen Planktonforschung (Zu Ernst Hentschels sechzigstem Geburtstag am 25. Februar 1936). [*De progressu investigationum germanicarum in substantiam planctonicam marinam, anno jubilari recurrenti* τοῦ Ernst Hentschel]. Naturwiss., XXIV, 9, 129-131. Berlin (1936). **b - 729**

**Taylor R. W.** - The Phytoplancton of the Isle Royale (U. S. A.) [*De substantia phytoplanctonica in Insula* Royale]. 4 pl., Trans. Amer. Microsc. Soc., LIV, 2, 83-97. Lancaster, Pa. (1935). **b - 730**

*Dinobryon divergens, D. stipitatum, Ceratium hirundinella, Melosira granulata, Tabellaria fenestrata, T. flocculosa, Fragilaria crotonensis, Asterionella gracillima.*

**Thompson T. G. & Phifer L. D.** - The Plankton and the Properties of the Surface Waters of the Puget Sound Region [*De substantia planctonica deque peculiaritatibus aquarum superficialium regionis* Puget Sound]. 5 figs., 4 tabl. Univ. Washington Publ. Oceanogr., I, 5, 111-134. Washington Seattle (1936). **b - 731**

Results of a study made of the variations of the physical and chemical properties and the plankton of the inland surface waters of the San Juan Archipelago, Puget Sound, and Hood Canal. Temperature, chlorinity, the contents in phosphates, silicates, nitrites, dissolved oxygen and the pH values. Three groups of microplankton were observed und investigated: *Diatomaceae, Dinoflagellata,* and *Tintinnoinea.*

**Vatova A.** - Ricerche quantitative sulla fauna bentonica dell'Alto Adriatico e loro importanza per la biologia marina [*Investigationes quantitativae in faunam benthonicam maris Hadriatici earumque momentum pro biologia marina*]. 2 tav., Not. Ist., Biol. Rovigno, 19, 3-15. Venezia (1936).

(—)Atti Soc. It. Progr. Sc., Riun. 24, IV, 1, 70-73. Roma (1936). **b - 732**

Si descrivono le associazioni biologiche ritrovate ed il loro peso in sostanza organica. Nello studio della distribuzione orizzontale della sostanza organica sono state trovate alcune zone più ricche che dovrebbero essere di utilità anche per la pesca pratica; nella distribuzione verticale, si può osservare una diminuzione secondo la profondità (da 229 grammi tra 0,15 metri fino a 38 grammi tra 50–80 metri). La fauna bentonica dell'Adriatico è inoltre ricchissima di specie ma povera di individui), donde il basso valore medio di sostanza organica, il quale probabilmente dipende dalla povertà di nitrati e fosfati della zona mediterranea.

**Wimpenny R. S.** - Summary of Paper on «the Distribution, Breeding and Feeding of some Important Plankton Organisms of the S. W, North Sea in 1934 » [*Compendium operis ad studendas distributionem, generationem, nutricationem aliquorum organismorum planctonicorum magni momenti in regione sud-occidentali maris Nordici A. 1934*]. Cons. Expl. Mer., Rapp. & Pr.-Verb., C, 3ème partie, 21. Copenhague (1936). **b - 733**

*Calanus finmarchicus, Sagitta setosa* and *S. elegans.*

# ZOOLOGIA SYSTEMATICA ET DESCRIPTIVA

## Bacteria.

**Bendinelli L. & Alfieri G.** - Contribuzioni alla microbiologia dei terreni sabbiosi (Tomboli) della costa tirrenica [*Contributiones in microbiologiam terrenorum sabulosorum (italice* « Tomboli ») *litoris Tyrrhenici*]. Boll. R. Ist. Sup. Agr., XI, 227-230. Pisa (1935). **b - 734**

Gli AA., eseguite indagini microbiologiche sui terreni sabbiosi della costa compresa tra Viareggio e Livorno, hanno messo in evidenza la notevole povertà in germi di detti terreni. [A].

**Bertel L.** - Sur quelques avantages remarquables dans la culture des bactéries marines [*De notandis beneficiis in bacteriis marinis colendis*]. 2 fig., 1 table. Bull. Inst. Océanogr., 688, 1-5. Monaco (1936). **b - 735**

L'A. décrit des nouvelles méthodes de culture des bactéries marines qui permettent de saisir plus facilement et plus complètement que jusqu'à présent les espèces de microbes caractéristiques pour une couche d'eau ou de vase.

**Bertel R.** - Les bactéries marines et leur influence sur la circulation de la matière dans la mer (2e mémoire) [*Bacteria marina eorumque influentia in circulationem marinam materiae;*

(*Memoria IIª*)]. 2 graph., 2 tabl., Bull. Inst. Océanogr., 687, 1-7. Monaco (1936). **b - 736**

Résultats des études de l'A. (v. 1er mém. Bull. Inst. Océanogr., 672, 1935) sur les bactéries marines et leur influence sur la circulation de la matière dans la mer, dont il conclut « qu'il est indispensable de rédiger, pour ainsi dire, une monographie de chaque organisme isolé pour pouvoir en indiquer exactement la place systématique et l'importance oecologique dans la circulation de la matière dans la mer ».

**Racchiusa S.** - Flora batterica intestinale dei pesci [*Flora bacterica intestinalis Piscium*]. Tab., Mem. R. Comit. Talassogr. Ital., N°. CCXII, 3-43. Venezia (1934). **b - 737**

Contributo allo studio della flora batterica intestinale aerobica ed anaerobica di *Muraenoidea, Scopelidae, Mugilidae, Mullidae, Labridae, Percidae, Sparidae*, etc.

I germi isolati si possono distinguere in 18 varietà di bacilli, 4 di cocchi e 4 di cocco-bacilli, tutti aerobi, e 3 varietà che sono facoltative. Fra i germi descritti, nessun tipo è riferibile a quelli appartenenti alla flora batterica intestinale dell'uomo e dei comuni animali terrestri ad eccezione di una varietà che appartiene al *Proteum vulgare comune*.

**Waksman S. A. & Renn C. E.** - Decomposition of organic Matter in Sea Water by Bacteria. III. Factors influencing the Rate of Decomposition [*Decompositio materiarum orgànicarum in aqua marina perBacteria. III. Factores qui influunt in velocitatem decompositionis*]. 2 figs., 9 tabl., Biol. Bull., LXX, 3, 472-483. Lancaster, Pa. (1936). **b - 738**

Influence of temperature and of organic compounds. Relationship of photosynthesis and phytoplankton development to bacterial activities in sea water. Decomposition at different seasons and at different latitudes. Influence of oxygen tension. Continued decomposition in stored water.

**Zobell C. E.** - Bactericidal Action of Sea-Water [*Actio letalis pro Bacteriis aquae marinae*]. 2 tabl. Proc. Soc. Exper. Biol. & Med., 34, 113-116. New York (1936). **b - 739**

The experiments described here show that, besides its salts, raw sea water possesses some constituent exerting a high bactericidal effect, which is reduced by the addition of organic matter.

**Zobell C. E. & Andersson D. Q.** - Vertical Distribution of Bacteria in Marine Sediments [*Distributio verticalis Bacteriorum in sedimentis marinis*]. Bull. Amer. Ass. Petrol. Geol., XX, 3, Chicago (1936). **b - 740**

## Protozoa.

**Biecheler B.** - Sur une Chloromonadine nouvelle d'eau saumâtre *Chattonella, subsalsa* n. gen., n. sp., *Protistologica* LVIII [*De Chloromonadina nova in aqua salmacida viventi: « Chattonella subsalsa »*]. 1 fig., Arch. Zool. Expér. et Gén., LXXVIII, 2, 79-83. Paris (1936). **b - 741**

La forme ici décrite doit se placer à côté du genre *Gonyostomum* Diesing, mais ses caractères ont obligé l'A. à en faire un genre spécial: *Chattonella*, avec l'espèce *subsalsa*. Description.

**Böhm A.** - Zum Variationsproblem der Peridinieen [*Peridineae. Quaestio de variationibus*]. 4 Abb., Österr. Bot. Ztschr. LXXXIV, 4, 271-281. Wien (1935). **b - 742**

Von *Dinophysis miles* Cleve und *D. caudata* Kent aus dem Indischen Ozean sind resp. zwei und drei Variationstypen determiniert worden. *D. miles* var. *schröteri* und var. *indica* mit einer intermediären Form und *D. caudata* var. *abbreviata*, var. *pedunculata* und var. *allieri*. Verteilung und Herkunft von *D. caudata, D. tripos* und *D. miles*.

**Böhm A.** - Dinoflagellates of the Coastal Waters of the Western Pacific [*Dinoflagellata in aquis litoreis Oceani Pacifici Occidentalis*]. 23 figs., Bernice P. Bishop Mus. Bull., 137, 54 pp. Honolulu (1936). **b - 743**

The samples under consideration have been collected in different areas from Singapore to Shanghai. List, however not complete, of species observed (about 46 new ones), description of the more important forms, comparison between the same forms from other localities, especially the Adriatic.

**Chatton E. & Biecheler B.** - Documents nouveaux relatifs aux Coccidinides (Dinoflagellés parasites). La sexualité du *Coccidinium Mesnili* n. sp. [*Documenta nova de Coccidinidis (Dinoflagellatis parasitis). Des exualitate speciei « Coccidinium Mesnili »*]. 1 fig., C. R. Acad. Sc., CCIII, 13, 573-576. Paris (1936). **b - 744**

*Coccidinium Mesnili* n. sp. chez *Cryptoperidinium foliaceum* Stein, *C. punctatum* n. sp. chez *Coolia monotis* Meunier, *C. Duboscqui* chez *Peridinium balticum* Levander et *C. Legeri* chez *Peridinium (Glenodinium) sociale* Henneguy. Leur évolution, comparaison entre les différentes espèces; conclusions sur la complexité de l'évolution.

**Deflandre G.** - Tintinnoïdiens et Calpionelles [*Tintinnoinea atque Calpionellidae*]. 42 fig., Bull. Soc. Franc. Microsc., V, 3, 112-122. Paris (1936). **b - 745**

Comparaison entre les Tintinnoïdiens, Infusoires loriqués pélagiques des mers actuelles et les Calpionelles, microfossiles de l'époque secondaire. Leur identité.

**Earland A.** - *Foraminifera*. – Discovery Rep., Disc. Comm. Colon. Off., X, Pt. 3, 1-208. Cambridge Univ. Press. Cambridge (1935). **b - 746**

This part concerns a large area extending over nearly 90° of west long. or practically a quarter of the south polar circumference. Study on the distribution and migration. Most species belong to the *Arenacea*.

**Earland A., Bannister F. A. & Hey M. H.** - *Foraminifera*. Additional Records from the Weddel Sea Sector from Material obtained by the S. Y. « Scotia ». Report on Some Crystalline Components of the Weddel Sea Deposits. Chemical Analyses [*Foraminifera. Registrationes additiciae a sectore Maris* Weddel *ex materiis collectis a pamphilio* « Scotia ». *Relatio de componentibus depositorum Maris* Weddel. *Analyses chemicae*]. 76 pp., 3 pls., Discovery Rep. Colon. Off. London, XIII, part 4. Univ. Press. Cambridge (1936). **b - 747**

**Fauré-Fremiet E.** - The *Folliculinidae* (*Infusoria Heterotricha*) of the Breton Coast [*Folliculinidae (Infusoria Heterotricha) ad litora Britannica pertinentes*]. 15 figs., Biol. Bull., LXX, 3, 353-360. Lancaster, Pa (1936). **b - 748**

Description of 15 species with special regard to the shape of the macronucleus. Division of the genus *Folliculina sensu stricto* and creation of a new genus, *Folliculinopsis*, for the species endowed with a beaded macronucleus. *Folliculinopsis annulata* sp. nov. and *F. lignicola* sp. nov.

**Fauré-Fremiet E.** - La famille des *Folliculinidae* (*Infusoria Heterotricha*) [*Familia Folliculinidarum (Infusoria Heterotricha)*]. 15 figs., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 1129-1175. Bruxelles (1936). **b - 749**

Caractères qui distinguent les Folliculines et justifient la création d'une famille spéciale qui comprend environ vingt-cinq espèces appartenant aux genres *Folliculinopsis* n. gen., *Folliculina, Parafolliculina, Metafolliculina* et *Pseudo-*

*folliculina*. Description de chaque espèce, les caractères morphologiques typiques, la forme et la dimension de la coque. Dimorphisme et reorganisation chez les Folliculines. Le cycle de *Folliculina simplex* et de *F. producta*; l'individu sédentaire et la vie libre de l'individu migrateur. L'aire de répartition de certaines Folliculines est presque universelle: toutes les espèces décrites sont marines et généralement côtières.

**Føyn B.** - Foraminiferstudien. I. Der Lebenszyklus von *Discorbina vilardeboana* d'Orbigny [*Foraminiferorum studia. I. Cyclus vitalis speciei* « *Discorbina vilardeboana* »]. 5 Abb., 2 Taf. a. T., 22 S., Berg. Mus. Årb., Naturv. r. I, 2. Bergen (1936). **b - 750**

Diese Untersuchungen geben vorhanden, dass bei *Discorbina vilardeboana* ein Generationswechsel zwischen einer mikrosphärischen, mehrkernigen, asexuellen und einer makrosphärischen, einkernigen, schwärmerbildenden Generation vorliegt. In bezug auf die Natur der Schwärmer hat man noch nicht feststellen können, ob sie Gameten sind oder nicht, es scheint aber wahrscheinlich, dass sie zum Entwicklungszyklus gehören.

**Gauthier-Liévre L.** - Sur une des singularités de l'Oued Rhir: des foraminifères thalassoïdes vivant dans des eaux sahariennes [*De peculiaritatibus fluminis* Rhir: *Foraminifera thalassoidea viventia in aquis saharianis*]. 1 pl., 1 fig., Bull. Soc. Hist. Natur. (Afrique du Nord) XXVI, 5, 142-147. Alger (1935). **b - 751**

Des foraminifères vivants de la famille *Miliolidae* ont été trouvés dans les eaux douces, saumâtres et salées du désert. Discussion sur leur origine.

**Keijzer C. J.** - On Variability in East Indian *Foraminifera* [*De variabilitate Foraminiferorum Indiarum Orientalium*]. 3 pls., 29 figs., Temminckia, 1, 75-152. (?) (1936). **b - 752**

Examination of 22 forms, one of which is recorded as new, from the coasts of Java, Madura and Bali. Criticism of Hofker's theory of trimorphism.

**Kiesselbach A.** - Einige morphologische und biologische Beobachtungen an *Epiclintes ambiguus* (*Ciliata hypotricha*) [*Morphologicae et biologicae observationes de specie* « *E. ambiguus* »]. 5 Abb., Not. Ist. Biolog. Rovigno, 18, 1-9. Rovigno (1935). **b - 753**

Von den hypotrichen Ciliaten *Epiclintes* (*Trichoda*) *ambiguus* (O. F. Müller 1786) Bütschli 1889 wurden zwei verschiedene Rassen gefunden, die sich durch die Länge des Körpers und die Breite des Schwanzes unterschieden. Die hier beschriebenen Formen unterscheiden sich von den von früheren Autoren gefundenen durch ihre Schlankheit und eine geringe Verbreiterung des äussersten Schwanzendes, die Tiere der grösseren Rasse auch noch durch ihre Grösse. Nahrung, Zahl der Kernteile. (Vom Vf.s Zus.).

**Kiesselbach A.** - Zur Ciliatenfauna der nördlichen Adria [*Ciliata maris Hadriatici septentr.*]. (Rés. franç.). 70 Abb., Thalassia, II, 5, 1-53. Jena (1936). **b - 754**

Die Ciliaten der Adria: A. Die in der Umgebung von Rovigno und in der Lagune Venedigs gefundenen Formen: Morphologische und ökologische Beobachtungen nebst Angaben über die geographische Verbreitung. Uebersicht über die ökologische Verbreitung. B. Die bisher aus der Adria bekannt gewordenen Formen. Alphabetisches Verzeichnis aller aus der Adria bekannten Arten mit kurzer Charakterisierung der geographischen Verbreitung innerhalb der Adria.

**Kitching J. A.** - The Physiology of contractile Vacuoles. II The Control of Body Volume in marine *Peritricha* [*De physiologia vacuolorum contractilium. II. Inspectio magnitudinis corporeae in marinis Peritrichis*]. 8 fig., Journ. Exp. Biol. XIII, 11-27. Cambridge (1936). **b - 755**

**Le Calvez J.** - Modifications du test des Foraminifères pélagiques en rapport avec la reproduction: *Orbulina universa* d'Orb. et *Tretomphalus bulloides* d'Orb. [*Texti foraminiferorum pelagicorum modificationes pro reproductione specierum* « *Orbulina universa* » *et* « *Tretomphalus bulloides* ». 8 figs., Ann. Protistol., V, 125-133. Paris (1936). **b - 756**

Observations sur ces deux espèces récoltées à Villefranche-sur-mer. Les loges bulleuses sont en rapport avec la reproduction et elles doivent être considérées comme une espèce de protection des stades précédant les gamètes.

**Le Calvez J.** - Observations sur le genre *Iridia. Protistologica.* LX [*Observationes de genere Iridia*]. 7 figs., 1 pl., Arch. Zool. Expér. et Gén. LXXXVIII, 3, 115-131. Paris (1936). **b - 757**

Description de *Iridia lucida* nov. sp., mode de vie, sporulation et position systématique; production d'embryons dans les espèces de ce genre, fixation des embryons pélagiques, croissance. Evolution nucléaire et protoplasmique. On peut probablement conclure à l'existence de deux générations A et B, les gamètes et les embryons, mais il faut que leur alternance ou leur succession soit encore contrôlée.

**Myers E. H.** - Culture des Foraminifères marins de la zone littorale [*Culturae Foraminiferorum marinorum ad zonam litoream pertinentium*]. Trans. Amer. Microsc. Soc., LIV, 3, 264-267. Lancaster, Pa (1935). **b - 758**

On peut appliquer cette méthode à *Patellina, Spirillina, Bulimina, Pyrgo*, etc.

**Neviani A.** - Appunti per una storia intorno ai foraminiferi dall'antichità al secolo XVIII [*Notae ad historiam redigendam de Foraminiferis ab antiquis temporibus usque ad sec. XVIII*]. 3 fig., Mem. Pont. Ac. Sc. Novi Lyncaei, serie 3, II, 131-210. Roma (1935). **b - 759**

**Nie D.** - Notes on *Tintinnoinea* from the Bay of Amoy [*Notae de Tintinnoineis in baja* Amoy]. 17 figs., Ann. Rep. Mar. Biol. Ass. China, III, 71-80. (?) (1934). **b - 760**

Among the recorded 17 species, 4 are new: *Tintinnopsis inflata, T. amoyensis, Wangrella dicollaria* and *Amphorellopsis pentagona*.

**Orsi A.** - Tintinnidi del Golfo di Genova [*Tintinnoinea Sinus Genuensis*]. 1 fig., 3, tav., Boll. Mus. Lab. Zool. Anat. Comp. XVI, 90, 1-18. Genova (1936). **b - 761**

L'A. nel presente lavoro dopo aver registrato un primo elenco di 60 specie di Tintinnidi del Golgo di Genova, ne studia la costanza fenologica, prende in esame il ciclo annuale di talune specie e termina con considerazioni ecologiche relativamente al materiale studiato (A.).

**Rhumbler L.** - Rhizopoden der Kieler Bucht, gesammelt durch A. Remane. I. Teil [*Rhizopoda in Baja* Kiel *collecta ab A.* Remane. *Pars I*]. Karte, 9 Taf., Schr. Naturwiss. Ver. Schleswig-Holstein XXI, 2, 143-194. Kiel (1935). **b - 762**

Beschreibung von etwa 50, meistens neuen, Formen.

**Schenck H. G. & Frizzell L.** - Subgeneric Nomenclature in Foraminifera [*Nomenclatura subgenerica Foraminiferorum*]. Amer. Jour. Sc., XXXI, 186, 464-466. New Haven, Conn (1936). **b - 763**

On hand of data contained in the important paper by W. A. E. van de Geyn and I. M. van der Vlerk some considerations are formulated on account of the terminology of subgenera, which is often confused by the use of a distinct name for the typical subgenus. Two principles are advocated, whose application may help to bring clarity in the problem.

**Stschedrin Z.** - Zur Kenntnis der Foraminiferenfauna der Arktischen Meere der USSR [*Contributio in cognoscenda foraminifera marium arcticorum ad URSS pertinentium*]. (In Russ. Dtsch. Rés.). 2 Taf., Trans. Arct. Inst., XXXIII, 51-64. Leningrad (1936). **b - 764**

Vorläufige Ergebnisse der Erforschung des Foraminiferenmaterials aus dem Karischen und Tschuchotskij Meere aus den Sammlungen der Expedition der Eisbrecher « Sibirjakov » und « Russanow ». Vf. gibt eine systematische Liste der beobachteten Formen und bespricht ihre Verteilung nach den Fundorten mit einigen Daten betreffend ihre geographische Verbreitung.

**Thompson M. L.** - The Genotype of *Fusulina* SS. [*De genotypo ad Fusulina SS. pertinenti*]. Amer. Journ. Sc., XXXII, 190, 287-291. New Haven, Conn. (1936). **b - 765**

A. criticizes the work of A. Silvestri on the validity of *Fusulina* Fischer claiming that the specimens studied are instead referable to the genus *Triticites* e. g. topotypes of *T. simplex* (Schellwien).

**Wang Chia Chi** - Notes on the Marine Infusoria of Amoy [*Notae de Infusoriis marinis ad* Amoy *pertinentibus*]. 14 figs., Ann. Rep. Mar. Biol. Ass. China, III, 50-70. (?) (1934). **b - 766**

Of the 14 spp. recorded 5 are new to science: *Amphileptus multinucleata*, *Dysteria amoyensis*, *Strombidium pseudocinctum*, *Carchesium paraepistylidis* and *Cothurnia amoyensis*.

**Whedon W. F. & Kofoid C. A.** - Dinoflagellata of the San Francisco Region 1. On the skeletal Morphology of two New Species, *Gonyaulax catenella* and *G. acatenella* [*Dinoflagellata a regione Sancti Francisci provenientia. I. De scheletri morphologia duarum novarum specierum « Gonyaulax catenella » et « G. acatenella »*]. 16 figs., Univ. Calif. Publ. Zoöl., XLI, 4, 25-34. Berkeley (1936). **b - 767**

Diagnosis, descriptions, remarks, variation, distribution, comparisons.

## Porifera.

**Alander H.** - Additions to the Swedish Sponge-fauna. Preliminary Note [*Addenda ad faunam Suetiam spongiarum. Nota prior.*). 1 fig., Ark. f. Zool., XXVIII B, H., 2, 5, 1-6. Stockholm (1935). **b - 768**

The sponges dealt with here are all collected in the Kosterfjord, Säcken and the Singlefjord of the Swedish west coast. 22 species are described, one of which is new, *Hymedesmia minuta* n. sp.

**Arndt W.** - Uebersicht über die Handelssorten der Badeschwämme [*Conspectus specierum commercialium Spongiarum*]. Sitz. ber. Ges. Naturforsch. Freunde, II, 4/7, 192-213. Berlin (1935). **b - 769**

Die als Badeschwämme benutzten Arten sind nicht mehr als 6 Arten und ein Dutzend Varietäten, die entweder einer einzigen Gattung, *Spongia* Linné oder zwei Gattungen, *Spongia* L. und *Hippospongia* F. E. Schulze, gehören. Verzeichnis von 400 Handelssorten.

**Burton M.** - The Fishery Grounds near Alexandria. Sponges [*Fundi piscosi Alexandriae. Spongia*]. 16 figs., Fish. Res. Directorate, Min. Comm. & Ind. IX, Not. & Mém. 17, 1-28. Cairo (1936). **b - 770**

Description of 45 species, one of which is new, *Haliclona Steueri*.

**Laubenfels (De) M. W.** - A Comparison of the Shallow-Water Sponges near the Pacific End of the Panama Canal with those at the Caribbean End [*Comparatio inter Spongias in aquis parum profundis viventes in regione canalis Panamensis quae oceanum Pacificum spectat et Spongias in regione Mare Caraibicum spectanti*]. 45 figs. Proc. U. S. Nat. Mus., LXXXIII, 2993, 441-466. Washington (1936). **b - 771**

General remarks on the distribution of shallow water sponges; the different ecological conditions of the Pacific and the Caribbean end especially with regard to tides. Comparison with other sponge faunas. Description of and remarks on 16 Pacific species (5 new ones), and 21 Atlantic species (9 new ones).

**Topsent E.** - Eponges observées dans les parages de Monaco (II-ème partie) [*Spongiae observatae apud Arcem Monoeci*]. 12 fig. Bull. Inst., Océanogr., 686, 1-70. Monaco (1936). **b - 772**

Malgré la publication récente de Vosmaer sur les « Eponges du Golfe de Naples », l'A. n'a pas cru inutile – pour les imperfections de l'ouvrage qu'il a remarquées – de donner le relevé annoté d'une seconde série d'Eponges observées par lui dans les parages de Monaco. A l'exception de ce que Vosmaer a réuni sous le nom de *Porifera incalcaria* et que l'A. laisse de côté pour le moment, il passe en révue, en deux séries, de la faune de Monaco à peu pres l'équivalent de celle de Naples compris dans le texte de Vosmaer.

**Topsent E.** - Etude sur des *Leucosolenia* [*Leucosolenia. Studia*]. 20 fig., Bull. Inst. Océanogr., 711, 1-47. Monaco (1936). **b - 773**

L'A. passe en révue la plupart des espèces de *Leucosolenia* provenant de la Méditerranée (Monaco, Porquerolles, Sète, Banyuls, Villefranche). La liste se compose de 20 noms au lieu de 31 noms donnés par Breitfuss. Synonymies et variétés. Structure de ces Eponges et variabilité dans leur spiculation.

**Vosmaer G. C. J.** - The Sponges of the Bay of Naples (Porifera Incalcaria) [*Spongiae Sinus Neapolitani*]. 69 pls., Capita Zool., V, 5, 777-875. 's-Gravenhage (1933-1935). **b - 774**

Full descriptions of all species. (See also preced. vols from 1932). This part has been published by Mr. M. Burton after the A:s death.

**Webb D. A.** - The Histology, Cytology and Embryology of Sponges [*Spongiae. Quaestio de histologia, cytologia et embryologia*]. Quart. Journ. Microsc. Sc., LXXVIII, 1, 51-70. London (1935). **b - 775**

Summary of literature published since 1914.

## Coelenterata - Insulae et scopuli coralliferi.

**Benisch J.** - Die Telestaceen-Gattung *Coelogorgia* Milne-Edwards [*Genus « Telestacea Coelogorgia »*]. 6 Abb., Zool. Anz., CXVI, 3/4, 91-98. Leipzig (1936). **b - 776**

Geschichte, Diagnose, Verbreitung, Beschreibung der Gattung und der beiden Spezies: *Coelogorgia palmosa* (Vat.) und *C. roxasi* n. sp.

**Billard A.** - Les Fonds de Pêche près d'Alexandrie. Hydroidea [*Fundi piscosi Alexandriae. Hydroidea*]. 3 fig., 4 cart., Fish. Res. Directorate, Min. Comm. & Ind., VI, Nat. & Mém., 13, 1-12. Le Caire (1936). **b - 777**

Etude de la collection récoltée par Prof. A. Steuer sur la côte d'Alexandrie pendant l'automne de 1933. Une espèce d'eau saumâtre et douze espèces marines.

**Boschma H.** - Sur la croissance de quelques coraux de récifs de l'île d'Edam (Baie de Batavia) [*De accretione aliquorum coralliorum in scopulis insulae* d'Edam]. 8 tabl., Bull. Mus. R. Hist. Nat. Belgique, Sér. 2, 3, 101-114. Bruxelles (1936). **b - 778**

Observations sur 74 échantillons dont la plupart appartiennent à l'éspèce *Psammocora contigua*, concernant la rapidité de la croissance de certains coraux de récifs. Méthode employée. Les coraux à squelette massif croissent plus lentement que ceux à squelette lacte et les formes peu ramifiés augmentent beaucoup plus vite de poids que les autres. La croissance est très irrégulière et diffère d'un endroit à l'autre par suite des facteurs du milieu.

**Carlgren O.** - Ueber einige ostasiatische Zoantharien [*Zoantharia quaedam Asiae orientalis*]. 6 figs., Ark. f. Zool., XXVIII A, H. 1, 5, 1-11. Stockholm (1935). **b - 779**

Beschreibung von *Epizoanthus ramosus* n. sp., *E. mortenseni* n. sp., *E. indicus* Lwowsky und *Parazoanthus gracilis* (Lwowsky) von japanischen und philippinischen Gewässern.

**Carlgren O.** - Ueber eine neue südafrikanische Lucernariide, *Depastromorpha africana* n. gen. n. sp. nebst Bemerkungen über den Bau und die Systematik dieser Tiergruppe [*Lucernariida nova sudafricana. « Depastromorpha africana » n. g., n. sp. cum notis de structura et systematica*]. 12 Abb., 1 Tab., Kungl. Sv. Vetensk. Akad. Handl., 3 ser., XV, 1, 1-24. Stockholm (1935). **b - 780**

Einleitende Bemerkungen über das Vorkommen der Lucernariiden, früher gefundene Arten usw. Beschreibung der neuen Spezies. Liste der untersuchten Arten.

**Crossland C.** - Coral Faunas of the Red Sea and Tahiti [*Fauna coralliorum Maris Rubri et* Tahiti]. Proc. Zool. Soc., 499-504. London (1935). **b - 781**

Comparison between the two faunas which are very different owing to temperature and salinity as well as the isolated position of Tahiti.

**Deichmann E.** - Notes on *Pennatulacea* and *Holothurioidea* Collected by the first and second Bingham Oceanographic Expedition 1925-1926 [*Pennatulacea et Holothurioidea collecta priore et altera expeditione oceanographica* τοῦ Bingham *perduranti ab A. 1925 ad A. 1926*]. 1 fig., Bull. Bingham Oceanogr. Coll., Peabody Mus. Natur. Hist., V, 3, 1-11. New Haven (1936). **b - 782**

Although the collection of *Pennatulacea* and *Holothurioidea* only comprise a few species, these are nevertheless of great interest; a new seapen *Verctillum binghami* n. sp. is described and other species are reported definitely from regions which are still rather incompletely explored. Key to the species of *Stylatula* and of *Ptilosarcus*.

**Deichmann E.** - The *Alcyonaria* of the Western Part of the Atlantic Ocean [*Alcyonaria regionis occidentalis Oceani Atlantici*]. Mem. Mus. Comp. Zool., LIII. Cambridge (1936). **b - 783**

**Fraser C. Mc Lean** - Hydroids from the west Coast of Vancouver Island [*Hydroidea a litoribus occidentalibus insulae* Vancouver *provenientia*]. Canad. Field Natur., XLIX, 143-145. Ottawa (1935). **b - 784**

**Hickson S. J.** - Darwin's *Cavernularia* [*Cavernularia Darwiniana*]. Nature, CXXXVII, 3474, 909. London (1936). **b - 785**

In a short note A. points out that a species from the Gulf of lower California newly described by Miss E. Deichmann as *Veretillum binghami* is identical with the *Cavernularia darwinii* of the Galapagos Isl.

**Kramp P. L.** - On the *Leptomedusae* of the Genera *Eirene* Eschscholtz and *Helgicirrha* Hartlaub [*De Leptomedusis ad genera Eirene et Helgicirrha pertinentibus*]. Vidensk. Medd., XCIX, 239-262. København (1935-36). **b - 786**

On account of the prevailing confusion as to the genera *Helgicirrha* and *Eirene* especially with regard to the 'cirri', Author here gives a revision of species in which cirri are not observed (12 species of *Eirene* described with a summary of general common features), and of species with cirri observed (6 species described with a general diagnosis of the genus *Helgicirrha*). Bibl.

**Leloup E.** - Siphonophores récoltés dans la région de Monaco [*Siphonophora collecta apud Arcem Monoeci*]. 4 tab., Bull. Inst. Océanogr., 703, 1-15. Monaco (1936). **b - 787**

Liste, par station, des espèces recueillies à bord du vapeur « Eider » au du canot « Steno », avec indications de la localité, profondeur en mètres, procédé de récolte.

**Leloup E.** - Hydropolypes calyptoblastiques et Siphonophores récoltés au cours de la croisière (1934-1935) du navire-école belge « Mercator » [*Hydropolypi calyptoblastici et Siphonophora collecta inter navigationem (1934-1935) navis praeceptoriae belgicae* « Mercator »]. 3 fig., Bull. Mus. R. Hist. Natur. Belgique, XI, 34, 1-6. Bruxelles (1936). **b - 788**

Liste et description des espèces recueillies dans l'Océan Pacifique: baie de Guayaquil (Equateur), île de Pâques; dans l'Océan Atlantique Nord; mer des Sargasses et mer des Antilles.

**Leloup E.** - Siphonophores Calycophorides (suite) et Physophorides provenant des Campagnes du Prince Albert I^er^ de Monaco [*Siphonophora Calycophoroidea et Physophoroidea e navigationibus Principis Alberti I* de Monaco *provenientia*]. 2 pls., Rés. Campagnes Scient., XCIII, 1-37. Monaco (1936). **b - 789**

Description et distribution géographique de neuf familles de Physophorides et de *Stephanomia (?) Richardi*, nouvelle espèce. Tableaux des espèces recueillies aux différentes stations des Campagnes de 1886 à 1913.

**Macfadyen L. M. S.** - *Alcyonaria* (*Stolonifera, Alcyonacea, Telestacea* and *Gorgonacea*) 5 pls., Brit. Mus. (Natur. Hist.) Great Barr. Reef Exped., 1928-29, Scient. Rep., V, 2, 19-71. London (1935). **b - 790**

**Panikkar N. K.** - On *Apiactis bengalensis*, species nova, a New Pelagical Larval Ceriantharian from the Madras Plankton [« *Apiactis bengalensis* » *Ceriantharium novum pelagicum larvale e plancton insulae* Madras *proveniens*]. 10 figs., Zool. Anz., CXV, 250-260. Leipzig (1936). **b - 791**

Diagnosis. External characters. Anatomy. The tentacles. The pharynx. The mesenteries. Mesenterial filaments. Systematic relationships.

**Papenfuss- Johnstone E.** - The Utility of the Nematocysts in the Classification of certain Scyphomedusae. 1. *Cyanea capillata*, *C. Palmstruchii*, *Dactylometra quinquecirrha*, *D. q.* var. *chesapeakei*, and *Chrysaora hysoscella* [*De utilitate nematocystorum pro classificatione aliquarum Scyphomedusarum*]. Lunds Univ. Årsskr. N. F. Avd., 2, XXXI, 11, 25 pp. (Kgl. Fysiogr. Sällsk. Handl. N. F., XLVI, 11). Lund (1936). **b - 792**

From the results of this study, it may be concluded that the undischarged nematocysts can be used as a taxonomic character in the *Semaestomeae*. This conclusion is based on the fact that the nematocysts of each species have a constant size, shape, and structure while the nematocysts of different species differ in size, shape and structure. On the basis of the differences in the nematocysts, it has been possible to show that *Cyanea capillata* and *C. palmstruchii* are distinct species. A previously undetermined medusa, *Dactylometra quinquecirrha* var. *chesapeakei*, is closely related to *D. quinquecirrha* and not allied to *Chrysaora* with which it has been confused. The undischarged nematocysts vere studied only in *Cyanaea camillata* (A.).

**Paspalew G. W.** - *Thaumantias maeotica* Ostr.- *Pontia Ostroumowi* gen. et sp. nov. (In Dtsch; Bulg. Rés). 29 Abb., 1 Taf., Arb. Meeresstat. Schwarz. Meer Varna, Bulg., 5, 1-35. Sofia (1936). **b - 793**

Nach einer eingehenden Untersuchung der Ammen- und Medusengeneration der in 1896 von Ostroumov bestimmten *Thaumantias maeotica* ist Vf. zum Resultat gekommen, dass diese Form keine Leptomedusa sondern eine neue Form der Anthomedusen darstellt und schlägt dafür den Namen *Pontia Ostroumowi* gen. et sp. nov. vor.

**Pax F.** - *Anthozoa* (Teil 2: *Actiniaria*, *Octocorallia*). – Die Tierwelt d. Nord- w. Ostsee gegr. v. Grimpe & Wagler., Lief. 30, Teil 3 c, 81-318. Akad. Verlagsg. Leipzig (1936). **b - 794**

**Pax F. & Lochter H.** - *Epizoanthus Vatovai* eine neue Carcinoecienbildende Krustenanemone der Adria [« *Epizoanthus Vatovai* » *zoanthidis novus maris Hadriatici qui Carcinoeces format*]. 7 Abb., Not. Ist. Biolog. Rovigno, 17, 1-16. Rovigno (1935). **b - 795**

Anatomische und morphologische Beschreibung. Diese Spezies wurde in der Nähe von Rovigno auf *Chenopus pes pelecani* (L.), von *Paguristes oculatus* Fabr. bewohnt, aufgefunden.

**Philbert M.** - Liste préliminaire des Hydraires récoltés dans la région de Saint Servan [*Hydraria collecta in regione* Saint Servan. *Index prior*]. Bull. Lab. Marit. Saint-Servan, XIV, 19-28. Rennes (1935). **b - 796**

Liste des Hydraires récoltés aux différents lieux visités (17 Stations). Liste par familles des Hydraires de la région Malouine appartenant aux Gymnoblastiques et aux Calyptoblastiques.

**Philbert M.** - Etudes sur *Cladocoryne floccosa* Rotch [*Studia de specie* « *Cladocoryne floccosa* »]. 8 fig., Bull. Inst. Océanogr., 708, 1-15. Monaco (1936). **b - 797**

Répartition géographique, habitat· position et considérations systématiques: parmi les espèces créées par les auteurs *C. pelagica* et *C. Haddoni* doivent être considérés appartenant à *C. floccosa*. Description du Penidome, du gonosome et du trophosome.

**Ranson G.** - Observations morphologiques, systématiques et biogéographiques sur une Scyphoméduse rare, *Paraphyllina intermedia* O. Maas 1903, trouvée sur la plage de Biarritz [*Observationes morphologicae, systematicae et biogeographicae circa Scyphomedusam quamdam raram* « *Paraphyllina intermedia* » *in ora maritima* Biarritz *repertam*]. Bull. Mus. Nat. Hist. Natur., Sér. 2, VIII, 269-276. Paris (1936). **b - 798**

Description détaillée, distribution géographique de cette espèce dont un exemplaire a été trouvé le 28 janvier 1935 au lendemain d'une violente tempête.

**Ranson G.** - Méduses provenant des Campagnes du Prince Albert I$^{er}$ de Monaco [*Medusae provenientes a navigationibus Principis Alberti I* de Monaco]. 2 pl., Rés. Campagnes Scient., XCII, 1-244. Monaco (1936). **b - 799**

Description de 45 espèces appartenant à 14 familles parmi lesquelles *Leuckartiara Grimaldii* n. sp. et *Aglantha Krampi* Ranson. L'A. n'a pas voulu donner simplement une liste documentaire mais il a accompli la recherche des affinités entre les espèces et les groupes en fonction des réactions protoplasmiques de l'organisme avec le milieu. Importance des pigments des Méduses étudiées et action de la température sur la période de reproduction. Tableaux des espèces recueillies aux différentes stations. Bibl.

**Rawlinson R.** - The Occurrence of *Diadumene cincta* T. A. Stephenson, in the River Roach, Essex [*Species* « *Diadumene cincta* » *in flumine* Roach, Essex]. 1 tabl., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 91-93. Plymouth (1936). **b - 800**

These anemones were found attached to living and dead shells of *Ostrea*, *Mytilus*, *Alcyonidium* and *Halichondria*. Anatomical difference from *D. cincta* first recorded from Plymouth and described by T. M. Stephenson.

**Rees J.** - On a new Species of Hydroid, *Staurocoryne filiformis*, with a Revision of the Genus *Staurocoryne* Rotch, 1872 [*De quodam hydroide speciei novae* « *Staurocoryne filiformis* », *cum reinspectione generis* « *Staurocoryne* »]. 11 figs., 1 tabl., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 135-142. Plymouth (1936). **b - 801**

Account of the development of this new species, reared in the laboratory. Comparison with allied species. Instead of introducing a new genus for the species, A. redefines the genus *Staurocoryne* with some modifications discussed here.

**Russell F. S.** - On the Hydroid of *Laodicea undulata* (Forbes and Goodsir) [*De hydroide* « *Laodicea undulata* »]. 7 figs., Journ. Mar. Biol. Ass., XX, 3, 581-587. Plymouth (1936). **b - 802**

The rearing experiments described here confirm previous observations that the hydroid of this species is a *Cuspidella*.

**Russell F. S.** - On a New Species of Medusa, *Eucheilota hartlaubi* n. sp. [*Species nova ex Medusis* « *Eucheilota hartlaubi* »]. 6 figs., Journ. Mar. Biol. Ass., XX, 3, 589-594. Plymouth (1936). **b - 803**

Diagnosis; comparison with *Eucheilota duodecimalis* A. Agassiz.

**Russell F. S. & Rees W. J.** - On Rearing the Hydroid *Zanclea implexa* (Alder) and its Medusa *Zanclea gemmosa* Mc Crady, with a Review of the Genus *Zanclea* [*De cultura hydroidis* « *Zanclea implexa* » *eiusque medusae* « *Zanclea gem-*

*mosa* ». *Conspectus generis* « *Zanclea* »]. 12 figs., Journ. Mar. Biol. Ass., n. ser., XXI, 1 107-130. Plymouth (1936). b - 804

Account of the development of the two *Zanclea*-colonies growing in association with polyzoa. Conclusional emendations: *Zanclea implexa* of the European coasts is to be united with *Gemmaria gemmosa* of the American coasts. The name for the hydroid must be *Zanclea implexa* (Alder) and that for the medusa *Zanclea gemmosa* Mc. Crady. Bibl. Addendum: Remarks on a new genus and species of hydroid, *Zancloidea philippina*.

**Scharrer E.** - Der Blaasop [« *Tetrodon lagocephalus* »]. 2 Abb., Natur u. Volk, LXVI, 3, 135-136. Frankfurt a. M. (1936). b - 805

Beschreibung der in der Bucht von Laurenço Marques in der Portug. Ostafrika vorkommenden Spezies, *Tedrodon lagocephalus*, von den Südafrikanern genannt Blaasop. Ihre Weise, sich von den Rippenquallen zu retten.

**Seymor Sewell R. B.** - Coral Reefs of the Western Indian Ocean [*Scopuli coralliferi Oceani Indiani occid.*]. Nature, CXXXVII, 3470, 730-731. London (1936). b - 806

Review of three papers recently published by the Linnean Society on the studies carried out by the Percy Sladen Trust Expedition to the Indian Ocean in 1905.

**Smith H. G.** - Contribution to the Anatomy and Physiology of *Cassiopea frondosa* [*Contributio in anatomiam et physiologiam speciei* « *Cassiopea frondosa* »]. Carnegie Inst. Washington, Publ. 475, 17-52. Washington (1936). b - 807

**Tayama R.** - Table Reefs a Particular Type of Coral Reefs [*Tabularum scopuli* (*anglice* table reefs) *typi peculiares inter scopulos coralliferos*]. Proc. Imp. Acad., 11, 268-270. Tokyo (1935). b - 808

Typical examples are the Tobi and Sonsoral Islands in the South Sea. Description.

**Tayama R.** - Distribution of Coral Reefs in the South Sea [*Distributio scopulorum coralliferorum in maribus meridionalibus*]. 1 map, Proc. Imp. Acad., 11, 326-328. Tokyo (1935). b - 809

The region studied comprises the islands the North and South Marianas, Palau, the Carolines, Marchals and the Central Islands under Japanese mandate. Claim for Darwin's subsidence theory rather than Daly's glacial control theory as to the formation.

**Ting Ying H. M.** - On the Growth Rate of Coral Reefs and the Sea Water Temperature in the Japanese Islands during the Latest Geological Times [*De velocitate accretionis vadorum coralliferorum deque temperatura aquae marinae insularum Japonicarum, ultimis aetatibus geologicis*]. 4 pl., 25 pp. Maruzen Co. Tokyo (1935). b - 810

**Tortonese E.** - I Gorgonarii del Golfo di Genova [*Gorgonaria Sinus Genuensis*]. 8 fig., Boll. Zool., VII, 2/3, 113-125. Napoli (1936). b - 811

L'ordine dei Gorgonarii nel Golfo di Genova è rappresentato dalle sei specie seguenti: *Corallium rubrum* L., *Eunicella verrucosa* Pall., *Paramuricea chamaeleon* G. Koch, *Caligorgia verticillata* Pall., *Leptogorgia sarmentosa* Esp., *Isidella elongata* Esp. Si dà di ciascuno la descrizione e l'habitat.

**Totton A. K.** - Plankton of the Bermuda Oceanographic Expeditions. VII. *Siphonophora* taken during the Year 1931. Introductory Notes by William Beebe [*De substantia planctonica collecta ab expeditionibus oceanographicis ad* Bermuda. *VII: Siphonophora capta A. 1931*]. Zoologica, XXI, Part 4, 19/23, 231-240. New York (1936). b - 812

List of 32 species with indications of color and distribution. For further particulars concerning the nets position, etc., see Zoologica, XIII, 1, 2, 3.

**Vallaux C.** - Note sur la croissance des récifs coralliens [*Notae de accretione scopulorum coralliferorum*]. Rev. Hydrogr., XIII, 1, 91-93. Monaco (1936). b - 813

Extr. des Ann. Hydrogr. Paris (1935). Voir aussi: Bull. Hydrogr. Int. Monaco, XI, 258 (1932); I, 9, IV, 81, VI, 110 (1933).

**Yabe H. & Eguchi M.** - *Oxyphyllia*, a New Genus of Hexacorals [*Oxyphyllia genus novum ex Hexacoralliis*]. 10 figs. o. pl., Proc. Imp. Acad., XI, 9, 376-378. Tokyo (1935). b - 814

Diagnosis, comparison with *Oxypora*, *Mycedium Echinopora* and *Physophyllia*. Description of two new varieties of *Oxyphyllia*.

**Yabe H. & Eguchi M.** - Revision of Reef Coral Genera *Echinopora*, *Oxyphyllia*, *Mycedium*, *Oxypora* and *Physophyllia* [*Reinspectio generum Coralliorum scopulos constituentium*]. Proc. Imp. Acad., XI, 10, 429-431. Tokyo (1935). b - 815

Different parts of these genera are compared with one another in a table. Genotypes. Remarks on distribution and taxonomy.

**Yabe H. & Ehara E.** - Two new Corals from Taiwan (Formosa) [*Corallia duo nova a* Taiwan (*Formosa*) *provenientia*]. 6 figs. o. pl., Proc. Imp. Acad., XII, 1, 25-27. Tokyo (1936). b - 816

*Pavona garanbiensis* sp. n., *Cladorbicella* gen. n. with *C. taiwanensis* sp. n. Diagnosis, remarks and localities.

**Yabe H. & Sugiyama T.** - A new Living Coral, *Pseudosiderastrea tayamai*, from Dobo in Wamar, Aru Islands [*Corallium novum vivens* « *Pseudosiderastrea tayamai* » *a* Dobo *in* Wamar (*Insulis* Aru) *proveniens*]. 7 figs., Proc. Imp. Acad., XI, 9, 373-375. Tokyo (1935). b - 817

This new form, of which a description is given, is very similar to *Siderastrea* from the Atlantic. Comparison with *Anomastraea irregularis*.

**Yonge C. M.** - Studies on the Biology of Tortugas Corals. I. Observations on *Maeandra areolata* Linn. II. Variation in the Genus *Siderastrea* [*Studia de biologia coralliorum ad insulas* Tortugas *pertinentium. I. Observationes de* « *Maeandra areolata* ». *II. Variatio generis* « *Siderastrea* »]. 4 pls., 1 fig., Pap. Tortugas Labor., XXIX, 187-198; 201-208. Washington (1936). b - 818

I. Habitat, feeding reactions, cleansing mechanisms, reproduction and growth. II. Occurrence on the Tortugas Reefs and in the moat at Fort Jefferson. Significant differences in the environment.

**Weill R.** - Contribution à l'étude des Cnidaires et de leurs nématocystes. I. Recherches sur les nématocystes (morphologie, physiologie,

développement). II. Valeur taxonomique du cnidome [*Contributio in studenda Cnidaria eorumque nematocysta. I. Investigationes in nematocysta (morphologiam, physiologiam, accretionem). II. Valor taxonomicus cnidomatis*]. 224 fig., Trav. Stat. Zool. Wimereux X, 1-347; XI, 1-353. Paris (1934). **b - 819**

Résultats des recherches conduites pendant 11 années dans des stations de zoologie marine du monde entier. Vol. I (X). Caractère général technique et matériel: Morphologie, Physiologie, développement, spirocystes. Vol. II (XI). Introduction. Définition du cnidome. Gymnoblastes, calyptoblastes. *Milleporida, Stylasterida, Trachymedusae, Narcomedusae. Siphonophora*, classification. *Hydrozoa*: classification. *Scyphomedusae. Actinaria. Hexacorallia. Zoantharia. Ceriantharia* et *Antipatharia. Anthozoa. Asclerocorallia* et *Ceriantharia. Cnidaria*: classification. Corrections, conclusions générales, revue critique de la littérature. Bibl.

**Weill R.** - Le cnidome des Cladonémides *Eleutheria dichotoma* et *Cladonema radiatum*, son cycle et son interprétation [*De cnidomate in Cladonemidis « Eleutheria dichotoma » et « Cladonema radiatum » deque eius cyclo et interpretatione*]. C. R. Acad. Sc., CCIII, 17, 816-818. Paris (1936). **b - 820**

Élevage des polypes de *E. dichotoma* et *C. radiatum* dont il résulte que les polypes possèdent uniquement des sténotèles, les méduses des desmonèmes et des sténotèles. Chez les formes étudiées la phase polypoide représente le stade larvaire, la phase médusaire le stade adulte.

**Wells J. W.** - The Nomenclature and Type Species of Some Genera of Recent and Fossil Corals [*Nomenclatura et species typicae aliquorum generum coralliorum fossilium et recentium*]. Amer. Journ. Sc., XXXI, 182, 97-134. New Haven, Conn. (1936). **b - 821**

A systematic revision of the classification of the madreporarian hexacorals has shown that in the cases of 91 genera either the genotype has not been definitively designated or selected or else the wrong name has been applied by authors. Each of the cases is dealt with, giving the place and date of first usage, genosyntypes if there are such, the correct genotype, type locality and present whereabouts of the type material, and discussion. Genotypes (genolectotypes) are selected wherever necessary. No new generic names are proposed and but one new name given to an old species (A.).

**Zirpolo G.** - Su di una nuova Leptomedusa *Eugymnanthea inquilina* Palombi [*De Leptomedusa quadam nova « Eugymnanthea inquilina »*]. 2 fig., Riv. Fis. Mat. e Sc. Natur., X, 3, 107-109. Napoli (1935). **b - 822**

In base all'esame dei caratteri anatomici l'A. ritiene che il polipo idroide *Eugymnanthea inquilina* Pal., rinvenuto recentemente dal Palombi, aderente al mantello, al piede ed alle branchie di *Tapes decussatus* nel Golfo di Napoli e nel Lago Fusaro, sia il rappresentante di una nuova sottofamiglia.

## Vermes.

**Allgén C.** - Die freilebenden Nematoden des Oeresunds [*Nemertini liberi regionis* Oeresund]. 75 Abb., 192 S. Capita Zoologica, VI, 3. 's-Gravenhage (1936). **b - 823**

**Allgén C.** - Zur Kenntnis norwegischer Nematoden. IV. Das Männchen des *Thoracostomopis barbatum* Ditlevsen. V. Weitere neue oder wenig bekannte freilebende marine Nematoden aus der Strandzone bei Tarva [*De cognoscendis Nematodis norvegicis. IV. De masculo speciei « Thoracostomopis barbatum ». V. Alii Nematodes liberi novi vel parum cogniti ad zonam litoream* Tarva *pertinentes*]. Kgl. Norsk. Vidensk. Selsk. Forh., VIII, 14, 44-46; 15, 47-50. Trondheim (1936). **b - 824**

IV. Grössenverhältnisse, Kuticula, Kopf, Seitenorgane, Oesophagus, Schwanz, Geschlechtsdrüse, Spicula, akzessorisches Stück, supplementäres Organ.

V. Beschreibung von 12 Arten, von denen 4 neu sind: *Enoplolaimus (donsi)– tarvae* n. sp., *Halichoanolaimus paramenzeli* n. sp., *Spirina pilosa* n. sp. und *Microlaimus donsi* n. sp.

**An der Lan H.** - Neue Plagiostomiden der Adria (Rovigno) [*Plagiostomidae novae Arupinenses*]. 11 Abb., Not. Ist. Biol. Rovigno, 22, 3-16. Jena (1936). **b - 825**

*Plagiostomum mikropharynx* n. sp., *P. rovignense*, n. sp., P. *siphonophorum* O. Schm., *P. obscurum* n. sp., *P. paradoxum* n. sp., Beschreibung.

**An der Lan H.** - Ergebnisse einer von E. Reisinger und O. Steinböck mit Hilfe des Rask.-Ørsted-Fonds durchgeführten zoologischen Reise in Grönland 1926. 7. *Acoela* I. [*Resultatus ex expeditione zoologica in Groenlandiam A. 1926 peracta sumptibus fundationis* Rask-Ørsted. *Acoela*]. 27 Abb., 3 Taf., Vidensk. Medd., XCIX, 289-330. København (1935-36). **b - 826**

Allgemeiner Teil: Beschreibung verschiedener Körperteile, Nervensystem, Geschlechtsverhältnisse. Spezieller Teil: Beschreibung von 8 neuen Arten (von denen 6 neue Genera). Arten deren systematische Stellung noch unsicher ist. Bibl.

**Augener H.** - Zoologische Ergebnisse einer Reise nach Bonaire, Curaçao und Aruba im Jahre 1930. XIV. Polychäten aus den marinen Salinen von Bonaire und Curaçao [*Resultatus zoologici e navigatione ad* Bonaire, Curaçao *et* Aruba *peracta A. 1930. XIV: Polychaeta provenientia a salinis marinis in* Bonaire *et* Curaçao]. Zool. Jahrb. Abt. Syst. Ökol. u. Geogr., 67, 337-352. Jena (1936). **b - 827**

**Brandtner P.** - Eine neue marine Triclade, zugleich eine Studie über die Turbellarien des Rycks [*Nova Tricladis marina. Studium adiungitur de Turbellariis regionis* Ryck]. 4 Abb., Ztschr. f. Morphol. u. Oekol. Tiere, XXIX, 472-480. Berlin (1935). **b - 828**

*Sabussowia punctata* n. sp.

**Carrère P.** - Sur le cycle évolutif d'un *Maritrema* (Trématodes) [*Maritrema. Quaestio de cyclo evolutionis*]. C. R. Acad. Sc., CCII, 3, 244-246. Paris (1936). **b - 829**

L'A. a eu occasion dans les gîtes d'eau saumâtre du delta du Rhône de suivre le cycle évolutif d'un trématode, d'espèce nouvelle appartenant au genre *Maritrema* Nicoll. Il en donne une diagnose et indique brièvement les caractères, par lesquels la nouvelle forme, dénommée *Maritrema rhodanicum*, se distingue des autres formes du même genre.

**Chitwood B. G.** - Some Marine Nematodes from North Carolina [*Nematodes marini ad* North Carolina *pertinentes*]. 4 figs., Proc. Helminth. Soc. Washington, III, 1, 1-16. Washington (1936). **b - 830**

Division of the family *Desmodoridae* Steiner, diagnosis and lists of genera; description of about 50 forms most of them new ones.

**Fauvel P.** - Sur quelques Annélides Polychètes de l'Ile de Pâques [*Annelida Polychaeta ad* Ile de Pâques *pertinentia*]. Bull. Mus. Nat. Hist. Natur., Sér. 2, VIII, 3, 257-259. Paris (1936). **b - 831**

Huit espèces divisées en six familles, recueillies en décembre 1934 par la Mission Franco-Belge.

**Fauvel P.** - Annélides Polychètes du Japon [*Annelida Polychaeta Japonica*]. Mem. Coll. Sc. Kyoto Imper. Univ., ser. B, XII, 1, 1-92. (Contr. Seto Mar. Biol. Lab. N. 50). Kyoto (1936). **b - 832**

Etude sur une collection de 70 espèces recueillies à la côte, à mer basse, ou dans des dragages côtiers peu profonds, dont *Eunice ovalifera* est nouvelle. Remarques générales. Description des espèces et distribution géographique. Dans la faune du Japon l'A. a trouvé un singulier mélange de formes septentrionales et même arctiques et de formes des mers tropicales.

**Friedrich H.** - Neue Hoplonemertinen der Kieler Bucht [*Hoplonemertini novi ad bajam* Kiel *pertinentes*]. 3 Abb., Schr. Naturw. Ver. Schleswig–Holstein, XXI, 1, 10–18. Kiel (1935). **b - 833**

*Nemertellina oculata* n. sp., *N. canea* n. sp., *Nemertellopsis cephalotrichiformis* n. sp., *N. macrodasys* n. sp., *N. minutus* n. sp., *Prostoma brunnea* n. sp., *P. aseptata* n. sp.

**Friedrich H.** - *Nemertini* – Tierwelt d. Nord– u. Ostsee gegr. v. Grimpe & Wagler. Lief. 30. Teil 4. Akad. Verlagsg. Leipzig (1936). **b - 834**

**Friedrich H.** - Einige Bemerkungen zur Anatomie von *Tubulanus borealis* n. sp., einer neuen Paläonemertine aus der Nordsee [*Observationes quaedam de anatomia speciei « Tubulanus borealis» palaeonemertini novi Maris Nordici*]. 4 Abb., Zool. Anz., CXVI, 3/4, 101–108. Leipzig (1936). **b - 835**

Eingehende Beschreibung der einzelnen Körperteile dieses während der Poseidon-Fahrten gefundenen Exemplares. Vergleich mit anderen *Tubulanus*- Arten.

**Gravier C.** - Remarques sur la morphologie du parapode des néridiens [*Notae de morphologia parapodii in Nereidis*]. Ann. Sc. Natur. Zool., 17, 347-367. Paris (1934). **b - 836**

Description du type normal de parapode et de ceux différant du type normal. La face *Heteronereis* des néridiens.

**Gravier C. & Dantan J. L.** - Pêches nocturnes à la lumière artificielle sur les côtes de l'Indochine: Annélides Polychaetes [*Piscationes nocturnae, lucis artificialis auxilio, peractae in litoribus Indosinensibus. Annelida Polychaeta*]. Inst. Océanogr. Indochine (Communication 5e Congrès Pacifique Vancouver 1933), 29, 67-71. Saigon (1936). **b- 837**

La source de lumière était une lampe à acétylène. Parmi les Polychaetes le groupe le plus représenté est celui des Néréidés avec des formes cosmopolites. Mention spéciale de *Tylorhynchus chinensis*.

**Hart J. F. & Guberlet J. E.** - *Cestoda* from Fishes of Puget Sound I. *Spathebothrioidea* a new Superfamily. II. *Tetrarhynchoidea*. III. *Phyllobothrioidea* [*Cestoda provenientia a piscibus regionis* Puget Sound. *I. Spathebothrioidea, superfamilia nova. II. Tetrarhynchoidea III. Phyllobothrioidea*]. Trans. Amer. Micr. Soc., LV, 199-207; 369-387, 488-496. Lancaster, Pa. (1936). **b - 838**

**Hartman O.** - New Species of Polychaetous Annelids of the Family *Nereidae* from California [*Species novae ex Annelidis Polychaetis ad familiam Nereidarum Californiensium pertinentibus*]. 7 figs., Proc. U. S. Nat. Mus., LXXXIII, 2994, 467-480. Washington (1936). **b - 839**

*Nereis (Nereis) eucapitis* n. sp., *N. (N.) pseudoneanthes* n. sp., *N. (N.) neonigripes* n. sp., *N. (N.) eakini* n. sp., *N. (N.) natans* n. sp., *N. (Ceratonereis) tunicatae* n. sp., *N. (Neanthes) saltoni* n. sp., *Nereis (Eunereis) longipes* n. sp. Descriptions, localities, distribution.

**Hartman O.** - New Species of *Spionidae* (*Annelida Polychaeta*) from the Coast of California [*Spionidarum species novae a litoribus Californiensibus provenientes*]. 22 figs. o. pl., Univ. Calif. Publ. Zoöl., XLI, 6, 45-52. Berkeley (1936). **b - 840**

Distribution and biology, systematic discussion and description of. *Streblospio lutincola* n. sp., *Polydora brachycephala* n. sp., *P. amarincola* n. sp., *P. truncata* n. sp., *Pygospio californica* n. sp., and *Rhynchospio arenincola* n. sp.

**Hartman O.** - A Review of the *Phyllodocidae* (*Annelida Polychaeta*) of the Coast of California, with Descriptions of Nine New Species [*Phyllodocidae (Annelida Polychaeta). Conspectus specierum a litoribus Californiensibus provenientium cum descriptione novem novarum specierum*]. 51 figs., Univ. Calif. Publ. Zoöl., XLI, 10, 117-132. Berkeley, Calif. (1936). **b - 841**

List of 15 species previously known from California with new synonyms, 5 species previously described but not reported from California and 9 new species. Key. Description of the new spp.

**Herter K.** - *Hirudinea.* – Die Tierwelt d. Nord– u. Ostsee, gegr. v. Grimpe u. Wagler, VI, Teil 6, c 2, Lief. 29. Akad. Verlagsg. Leipzig (1936). **b - 842**

Bericht über Meeresformen (*Piscicolidae*) und Brackwasserformen (*Glossiphoniidae, Hirudiniidae* und *Herpobdellidae*). Beschreibung, Schlüssel, allg. Anatomie, Verbreitung, Nahrung, Physiologie und Fortpflanzung.

**Jurgens O.** - Die Wechselbeziehungen von Blutkreislauf, Atmung und Osmoregulation bei Polychäten [*Mutuae correlationes inter sanguinis circulationem, respirationem et regulationem pressionis osmoticae in Polychaetis*]. 22 Abb., Zool. Jahrb. Abt. Allg. Zool. u. Physiol., LV, 1, 1-46. Jena (1935). **b - 843**

Beschreibung des Blutkreislaufes von *Nereis diversicolor*. Atmung geschieht durch die Haut und die Eingeweide. Mit einer Verminderung des $O_2$ - Gehaltes im umgebenden Medium folgt eine Erhöhung der Kontraktionsgeschwindigkeit der Gefässe bis der $O_2$-Gehalt unter 2.5 mg pro Liter fällt. Bei einem übermässigen $O_2$-Gehalt (10-14 mg. pro Liter) wird die Kontraktion sehr schwach oder hört auf. Das Blut und der Kreislauf haben keine direkte Bedeutung für die Osmoregulation. Die Anneliden sind die einzigen Invertebraten mit einem geschlossenen Blutkreislauf wie die Vertebraten, und dies System zeigt in den beiden Gruppen viele Ähnlichkeiten auf.

**Kato K.** - A new Turbellarian, *Cryptocelis amakusaensis*, from Southern Japan [*Species nova ex Turbellariis « Cryptocelis amakusaensis »*

*a Japonia merid. proveniens*]. 3 figs., 1 pl., Jap. Journ. Zool., Trans. & Abstr., VII, 1, 17-20. Tokyo (1936). **b - 844**

This species is found on the sandy beach in the neighbourhood of the Amakusa Marine Biological Laboratory. Measurements the different parts of the body with special reference to the genital organs.

**Kato K.** - Notes on *Paraplanocera* [« *Paraplanocera*». *Notae*]. 5 figs., Jap. Journ. Zool. Trans. & Abstr., VII, 1, 21-29. Tokyo (1936). **b - 845**

Revision of the genus *Paraplanocera*. Detailed description of *Paraplanocera misakiensis*.

**Knöllner F. H.** - Die Oligochaeten des Küstengrundwassers [*Oligochaeta aquarum litoranearum Germaniae*]. Schr. Naturw. Ver. Schleswig-Holstein, XXI, 1, 135-139. Kiel (1935). **b - 846**

Verzeichnis von 8 Arten, von denen *Enchytraeoides immotus* n. sp., *Michaelsena subterranea* n. sp., *Rhyacodrilus prostatus* n. sp., *Spiridion insigne* n. sp., und *Aktedrilus monospermathecus* n. sp. neu sind.

**Knöllner F. H.** - Ökologische und systematische Untersuchungen über litorale und marine Oligochäten der Kieler Bucht [*Investigationes oecologicae et systematicae de Oligochaetis litoreis et marinis bajae* Kiel]. Karte, 50 Abb., Zool. Jahrb. Abt. Syst. Ökol. u. Geogr. Tiere, LXVI, 6, 425-512. Jena (1935). **b - 847**

Bericht über 25 Arten von 5 Familien; 5 Arten und 2 Gattungen sind neu (schon beschr. in Schr. Naturw. Ver. Schlesw.- Holst., XX, I1, 135-139). Ökologische Untersuchung der Kieler Bucht mit besonderer Berücksichtigung des Salzgehaltes.

**Leroy P.** - Les Sipunculiens du Muséum National d'Histoire Naturelle de Paris [*Sipunculidae Musei Nationalis Historiae Naturalis, Parisiis*]. Bull. Mus. Nat. Hist. Natur., Sér. 2, VIII, 423-426. Paris (1936). **b - 848**

Liste des 42 espèces appartenant à 8 genres différents du groupe des Sipunculiens avec nom, station où elles ont été récoltées, etc.

**Michaelsen W.** - Meeresstrand - Enchyträiden des südlichen Atlantischen Ozeans [*Enchytraeidea litorea Oceani Atlantici Meridionalis*]. 1 Abb., Norsk. Vidensk. Akad. Oslo, Scient. Results Norweg. Antarctic Exped. 1927-1928 and 1928-1929, 14, 1-17. Oslo (1935). **b - 849**

*Pachydrilus nervosus* und *P. pygmaeus* n. sp.

**Monro C. C. A.** - On the Heteronereid of *Platynereis pulchella* Gravier, a Polychaete belonging to the Family *Nereidae*. A preliminary Note [*De Heteronereidis in specie « Plathynereis pulchella » Polychaeta ad familiam Nereidarum pertinenti. Nota prior*]. Ann. & Mag. Natur. Hist., 10th ser., XVIII, 380-384. London (1936). **b - 850**

**Monro C. C. A.** - Polychaete Worms [*Vermes Polychaeta*]. Discovery Rep. Discov. Comm., Colon. Off., XII, 2, 59-198. Cambridge Univ. Press. London (1936). **b - 851**

**Okuda S.** - *Poecilochaetus tropicus* n. sp., a Remarkable Sedentary Polychaete from the South Sea [« *Poecilochaetus tropicus* » *species notanda sessilis ex Polychaetis marium meridionalium*]. 2 figs., Proc. Imp. Acad., XI, 7, 289-291. Tokyo (1935). **b - 852**

**Palombi A.** Policladi liberi e commensali raccolti sulle coste del Sud Africa, della Florida e del golfo di Napoli [*Polyclada libera et commensalia collecta in litoribus Sud Africanis, in* Florida *et in sinu Neapolitano*]. 27 fig., 1 tav., Arch. Zool. It., XXIII, 1-45. Napoli (1936). **b - 853**

L'A. riporta e descrive nove specie di Turbellari Policladi sia liberi che viventi associati a molluschi ed a crostacei paguridi dei mari del Sud Africa, del Nord America e del Mediterraneo. Delle specie studiate, quattro sono nuove, le altre sono da tempo conosciute; risultano tuttavia ugualmente interessanti per le modificazioni morfologiche intervenute in rapporto al nuovo ambiente biologico. Particolare rilievo va fatto infine per *Stylochus tenax* n. sp. commensale delle ostriche (*Ostrea virginica* Gmelin), alle quali apporta distruzioni non lievi.

**Prashad B.** - On the *Sipunculoidea* from Indian Waters in the Indian Museum, Calcutta [*De Sipunculoideis Marium Indianorum in Museo Urbis* Calcutta]. 1 pl., Rec. Ind. Mus., XXXVIII, 2, 231-238. Calcutta (1936). **b - 854**

General remarks on the collection. Description of the genera *Sipunculus* Linn. and *Siphonosoma* Spengel with the species *Sipunculus nudus* H., *Sipunculus robustus* Keferstein, *Sipunculus porrectus* Selenka, *Sipunculus aequabilis* Sluiter, and *Siphonosoma australe* (Keferstein).

**Reisinger E.** - Zur Exkretionsphysiologie von *Ophryotrocha puerilis* Claparède & Metschnikoff [*De physiologia excretionis speciei « Ophryotrocha puerilis »*]. 23 Abb., Thalassia, II, 4, 3-24. Jena (1936). **b - 855**

Die Ausbildung des Hautdrüsensystems und die Beibehaltung der larvalen Wimperkränze steht in funktioneller Beziehung zum Mangel an Nephridien. Unter mehreren Erklärungsmöglichkeiten hierfür wird die Annahme spontanen Nephridienverlustes bevorzugt. Die Neotenie von *Ophryotrocha puerilis* ist unvollständig, da sie sich nur auf die Gestalt, nicht jedoch auf die Funktion des larvalen Organs (Wimperkränze) erstreckt. (Von Vf. Rés.).

**Sato H.** - *Parabonellia misakiensis* (Ikeda) found in the Vicinity of the Shimoda Marine Biological Station [« *Parabonellia misakiensis reperta ad stationem biologicam marinam in* Shimoda]. 2 figs., Annot. Zool. Jap., XV, 1, 142-144. Tokyo (1935). **b - 856**

Anatomical description.

**Schulz E.** - Marine Nematoden von Sizilien und Gran Canaria [*Nematodes marini Siculi et ab Insulis Fortunatis (Canariae) provenientes*]. 1 Abb., Zool. Anz., CIX, 11/12, 299-304. Leipzig (1935). **b - 857**

Bericht über 11 Arten von Sizilien und 2 von Gran Canaria. *Chromadorita magna* und *Monoposthia costata mediterranea* sind neu.

**Schuurmans Stekhoven H. J. Jr.** - Nématodes libres capturés entre les Hydraires dans le Port de Plymouth [*Nematodes liberi inter Hydraria capti in portu* Plymouth]. Bull. Hist. Natur. Belgique, XI, 33,1-2. Bruxelles (1936). **b - 858**

Description de 7 espèces.

**Stunkard H. W. & Schoenborn H. W.** - Notes on the Structure, Distribution and Synonymy of *Diphyllobothrium lanceolatum* [*Notae de structura, distributione et synonymia speciei « Diphyllobothrium lanceolatum »*]. Amer. Mus. Novit., 880, 1-9. New York (1936). **b - 859**

Additions are made to Zschokke's account of the structure of *Diphyllobothrium lanceolatum* (Krabbe 1865) and some of the variations which have been observed in this species are recorded. *D. schistochilos* (Germanos 1895) und *D. coniceps* (Linstow 1905), are considered synonyms of *D. lanceolatum*. A check list of the diphyllobothrid species occurring in seals is given. (A.).

**Treadwell A. L.** - Polychaetous Annelids from Amoy, China [*Annelida polychaeta ad* Amoy *pertinentia in Sinensi regione*]. 20 figs., Proc. U. S. Nat. Mus., LXXXIII, 2984, 261-279. Washington (1936). **b - 860**

Diagnosis of 21 spp., 8 of which are new, belonging to families *Leodicidae, Nereidae, Sabellidae, Cirratulidae*, etc.

**Tseng Shen** - Anatomy of a New Appendiculate Trematode from the Sea Eel [*Trematodes novus appendiculatus anguillae marinae. Quaestio de anatomia*]. 3 pls., Peking Nat. Hist. Bull., IX, 3, 171-180. Peking (1935). **b - 861**

*Lecithocludium longicaudum*. Description of the musculature, digestive, excretory and nervous system as well as the sexual organs.

**Wheeler J F. G.** - *Nemertea*. – Brit. Mus. (Natur. Hist.) The John Murray Exped. 1933-34. Scient. Rep., IV, 3, 79-86. London (1936). **b - 862**

**Wilson D. P.** - The Development of *Audouinia tentaculata* (Montagu) [*Quaestio de accretione speciei « Audouinia tentaculata »*]. 12 figs., Journ. Mar. Biol. Ass., XX, 3, 567-579. Plymouth (1936). **b - 863**

A special interest is dedicated to the position of the tentacular filaments and the first pair of branchial filaments in the young worm as compared with the adult one as well as the segmentation of the anterior achoetigerous region.

**Wilson D. P.** - Notes on the Early Stages of two Polychaetes, *Nephthys hombergi* Lamarck and *Pectinaria koreni* Malmgren [*Notae de primis stadiis duorum Polychaetorum « Nephthys hombergis » et « Pectinaria koreni »*]. 3 figs., Journ. Mar. Biol. Ass., n. ser., XXI, 1, 305-310. Plymouth (1936). **b - 864**

The eggs and trochospheres of *Nephthys hombergi*, of which no satisfactory account has been previously given. Description of the very early larvae of *Pectinaria koreni* never before described.

**Winternitz J. K.** - New Species of Polychaetous Annelids collected at Appalachicola Florida by Dr. A. S. Pearse in 1935 [*Annelida Polychaeta. Species novae collectae in* Appalachicola (*Florida*) *a doct.* A. S. Pearse, *A. 1935*]. 12 figs. o. pl., Amer. Mus. Novit., 888, 1-3. New York (1936). **b - 865**

*Autolytus brevicirrata* n. sp. (*Syllidae*), *Phyllodoce unicirrata* n. sp. (*Phyllodocidae*) and *Eupholoe globosa* n.sp. (*Polynoidae*).

## Echinodermata.

**Aretz C.** - Les différentes formes de pédoncules chez les oursins [*De differentibus formis pedunculorum in echinis*]. Mikrokosmos, XXVII, 12, 191-192. Stuttgart (1934). **b - 866**

Cinq différentes formes de pédoncules ont été observées sur une préparation d'*Echinus esculentus*.

**Bassler R. S.** - New Species of American *Edrioasteroidea* [*Species novae in Edrioasteroideis Americanis*]. 7 pls. o. t., Smithson. Misc. Coll. XCV, 6, 1-33. Washington (1936). **b - 867**

This paper completes a former study on the classification of the *Edrioasteroidea* (XCIII, 8, 1-11; 1935) giving descriptions of species not previously described, comments on and illustrations of those already described.

**Chang Feng– Ying** - Additions to the Holothurians of the Chinese Coast [*Addenda ad Holothuria litorum Sinensium*]. 10 figs., Contr. Inst. Zool., Nat. Acad. Peiping, II, 3, 1-18. Peiping (1935). **b - 868**

Description, localities of: *Pentacta inornatus*, *Phyllophorus ordinatus* n. sp., *Ph. spiculatus* n. sp. and *Aphelodactyla hyaloeides*.

**Clark A. H.** - *Crinoidea*. - 1 pl., Brit. Mus. (Natur. Hist.), The John Murray Exped. 1933-34. Scient. Rep., IV, 4, 87-108. London (1936). **b - 869**

**Clark A. H.** - Five New Genera and Two New Species of Unstalked Crinoids [*Genera quinque nova duaeque species novae Antedonidarum*]. Proc. U. S. Nat. Mus. Smithson. Instit., LXXXIII, 2982, 245-250. U. S. Gov. Pr. Off., Washington D. C. (1936). **b - 870**

Description and diagnosis of *Compsometra nuttingi* n. sp., *Annametra* n. g., *Caryometra* n. g., *Eometra* n. g., *Boleometra* n. g., *Retiometra* n. g., *R. alascana* n. sp.

**Clark A. H.** - Four New Brittlestars from Puerto Rico [*Species quattuor novae Ophiuridorum ex* Puerto Rico]. 3 pls., Rep. Coll. Obt. Ist. Johnson-Smithsonian Deep-Sea Exped. Porto Rican Deep, Smithson Miscell. Coll., XCI, 24, 1-8. Smithson. Instit. Washington D. C. (1936). **b - 871**

Description of four new species found among the numerous brittlestars obtained by the First Johnson-Smithsonian Deep-Sea Expedition, 1933, of which the following three, i . e. *Ophiomusium regulare* n. sp., *C. rosaceum* n. sp., and *O. alecto* n. sp. belong to the genus *Ophiomusium* and two are interesting in having the upper of the two arm spines transformed into a hook curving outward from the arm. The fourth species *Ophiocirce antillarum* n. sp. belongs to the genus *Ophiocirce*, a genus of the family *Ophioleucidae* known heretofore only from the Philippine and Lesser Sunda Islands.

**Clark A. H.** - Biological Results of the Snellius Expedition. I. The unstalked Crinoids of the Snellius Expedition [*Resultatus biologici ex expeditione a* Snellius *peracta. I. Crinoidea sine cirris*]. 3 pls., Temminckia, I, 295-320 (?) (1936). **b - 872**

*Basilometra* n. gen., allied to *Epimetra* and *Pontiometra*, with *B. boschmai* n. sp., *Oligometra serripinna* v. *macrobrachius* n. var., *Stenometra snelliusi* n. sp. and *Dorometra andromacha* n. sp. 12 other forms not reported since their original description are also recorded among the more common forms. Bibl. of publications on the E. Indian Crinoid fauna appeared since the « Siboga » Report, March 1918.

**Diebschlag E.** - Ganzheitliches Verhalten bei einigen See - und Schlangensternen [*Modus agendi in Asteroideis et Ophiuroideis*]. Zool. Anz., 9. Suppl. 150-157. Leipzig (1936). **b - 873**

Zwei entgegengesetzte Ansichten sind vorläufig vorgetreten; eine wodurch das Tier als Ganzes in seinem Verhalten gegenüber Umweltreizen aufgefasst und auf die Plastizität seiner Reaktionen hingewiesen wird (Preyer, Jennings, Mangold, v. Buddenbrock, Alverdes); und eine, die die Tiere als Reflexmechanismen, die nur tropotaktisch ihre Orientierungsbewegungen durchführen, auffasst (v. Uexküll, Just u. Köhler). Die hier im Raum und zum Licht ausgeführten Orientierungsversuche sprechen zugunsten der ersteren Ansicht. (Nach Vf.).

**Döderlein L.** - Die Asteriden der Siboga-Expedition. 3. *Oreasteridae* [*Asteroidea ad expeditionem « Siboga » pertinentia*]. 8 Taf., Max Weber's Siboga- Exped., 125 (Monogr. 46). Res. Zool. Bot. Oceanogr., Geol. Expl. Dutch East - Indies 1899-1900, 71-110. E. J. Brill. Leiden (1935). **b - 874**

Key to 17 genera. About 14 new forms.

**Dons C.** - Zoologische Notizen XXVI. *Pseudoporania Stormi* n. gen., n. sp. [*Notitiae zoologicae. XXVI*]. 4 Abb., Kgl. Norsk. Vidensk. Selsk. Forh., VIII, 5, 17-20. Trondheim (1936). **b - 875**

Von dieser neuen, eigentümlichen Asteriden-Gattung sind bis jetzt nur 3 Exemplare vorgefunden worden. Vergleich mit der pazifischen Gattung *Dermasterias*. Diagnose.

**Dons C.** - Norges Strandfauna IX. Ophiurider. X. Echinider. XI. Holothurier [*De fauna litorea Norvegiae. IX. Ophiuroidea X. Echinoidea. XI. Holothurioidea*]. 11 Abb., 1 Tab., Kgl. Norsk. Vidensk. Selsk. Forh., VIII, 12, 37-40; 20, 65-67; 21, 68-70. Trondheim (1936). **b - 876**

IX. *Ophiothrix fragilis* Abildg., *Ophiocomina nigra* (Abildg), *Ophiopholis aculeata* (O. F. Müller), *Amphipholis squamata* (Della Chiaje), *Ophiura robusta* Ayres und *O. albida* Forbes. Fundortsangaben, Austreibung.

X. Bericht über die auf der Strecke Florø-Kirkenes gefundenen 6 Echiniden. Ortsangaben.

XI. Verzeichnis mit Fundortsangaben von 6 Arten: *Cucumaria frondosa* (Gunnerus), *Phyllophorus pellucidus* (Fleming), *Psolus phantapus* (Strussenfelt), *P. squamatus* (Koren), *Leptosynapta inhaerens* (O. F. Müller), *Chirodota laevis* (Fabricius).

**Dons C.** - Zoologische Notizen XXX. Ophiuriden aus Nord-Norwegen [*Notitiae zoologicae. XXX. Ophiuroidea Norvegiae septentr.*]. 3 Abb., Kgl. Norsk. Vidensk. Selsk. Forh., VIII, 19, 61-64. Trondheim (1936). **b - 877**

Verzeichnis mit Fundortsangaben von 19 Ophiuridenarten, die Vf. in den Jahren 1929, 1933 und 1934 im Tromsø Gebiet und in West-Finnmark sowie bei einzelnen Dredgungen an der Helgoland- Küste eingesammelt hat. (S. auch No. 12 dieser Veröff).

**Grieg J. A.** - Some Echinoderms from Franz Josef Land, Victoriaöia and Hopen [*Echinodermata a Terra Francisci Josephi provenientia et ab insula* Victoria *et* Hopen]. Map, Norg. Svalbard o. Ish. unders. Meddel., 26, 1-10. Oslo (1935). **b - 878**

Records of 9 spp., of which *Thyonidium pellucidum* represents the first record from Franz Josef Land.

**Häntzschel W.** - Seeigel - Spülsäume [*Conchae speciei « Echinocardium cordatum » in ora maritima repertae*]. 4 Abb., Nat. u. Volk, LXVI, 6, 293-298. Frankfurt a. M. (1936). **b - 879**

Bericht über einige Funde von Gehäusen von *Echinocardium cordatum* und einigen anderen Arten aus dem Nordstrand von Just. Die diese Erscheinungen begleitenden Wetterlagen.

**Hayashi R.** - Studies on the Morphology of Japanese Seastars. I. Anatomy of *Henricia sanguinolenta* var. *ohshimai* n. var. [*De morphologia Asteriarum marinarum Japonicarum. I. Anatomia speciei « Henricia sanguinolenta »*]. 30 fig., 1 pl., Journ. Fac. Sc. Hokkaido Imp. Univ., IV, 1-26. Sapporo (1935). **b - 880**

Anatomical monography. Teratological specimens with one arm bifurcated; one with six arms. Specimens with four arms are rare.

**Ikeda H.** - Preliminary Report on a New Cidarid Sea-Urchin from the Western Pacific [*Relatio de exemplari novo ex Echinoideis Cidaroideis oceani Pacifici occidentalis*]. 1 fig., Proc. Imp. Acad., XI, 9, 386-388. Tokyo (1935). **b - 881**

*Psychocidaris ohshimai* sp. n. Diagnosis, comparison with other Cidarids.

**Kolosváry von G.** - Die von der « Najade » - Expedition des Ungarischen Adria-Vereines im Adriatischen Meere gesammelten Stachelhäuter [*Echinodermata collecta ab expeditione* « Najade » *Societatis Hungaricae Hadriaticae*]. (Ungar., Dtsch. Rés.). A Tenger, XXVI, 7,/8, 89-93. Budapest (1936). **b - 882**

Vf. unterscheidet 73 adriatische Arten von Asteroiden, Ophiurioiden, Echinoideen, Holothurien und Crinoideen, worüber hier kurz berichtet wird. Keine dieser Arten ist pelagisch, sie ziehen alle die Litoralzone vor.

**Kolosváry von G.** - Die Echinodermaten-Sammlung des Ungarischen National-Museums [*Echinodermatorum collectio Musei Nationalis Hungarici*]. 1 Karte. Folia Zool. & Hydrobiol., IX, 1, 76-84. Riga. (1936). **b - 883**

Beschreibung der Sammlung enthaltend *Echinodermata* aus dem Polarmeere, aus den temperierten und tropischen Meeren.

**Ludwig H. & Heding S.** - Die Holothurien der Deutschen Tiefsee - Expedition. I. Fusslose und dendrochirote Formen [*Holothuria ad expeditionem germanicam in maria profunda pertinentia. I. Formae nullis pedibus et dendrochirotae*]. Wiss. Ergebn. Dtsch. Tiefsee-Exped. Valdivia 1898-1899. hrsg. Carl Chun, XIX, 2, 121-124. G. Fischer. Jena (1935). **b - 884**

**Macdonald R.** - A Study of Symmetry in the *Centrechinoidea*, based on Behavior, with special Reference to *Lytechinus variegatus*; including a short Discussion of linguistic Difficulties in describing Biological Phenomena [*Studium de symmetria in Centrechinoideis cuius fundamenta ponuntur in modo agendi, particulariter quod pertinet ad speciem « Lytechinus variegatus ». Includitur etiam brevis discussio circam difficultates bene loquendi in phaenomenis biologicis describendis*]. 3 figs., Proc. Amer. Phil. Soc., LXXXI, 1, 87-123. Philadelphia (1936). **b - 885**

On the basis of experiments described here and of observations made by various investigators it is shown that there is a bilaterally symmetrical organization (structure-function) in all the members of the *Echinoidea* and that the multi-bilateral symmetry of the structure-function in the post-ovum development is not primitive but a secondary development tending to be replaced in the Echinoidean phylogeny by a primitive order of symmetry (a unibilateral symmetry).

**Moore H. B.** - The Biology of *Echinocardium cordatum* [*De biologia speciei « Echinocardium cordatum »*]. 5 figs., 2 pls., 5 tabl., Journ. Mar. Biol. Ass., XX, 3, 655-671. Plymouth (1936).
**b - 886**

Habitat, growth, relation of growth and abundance to temperature, migration, maturation of the gonads and spawning. Tables on size distribution in Port Erin and in the Clyde, sea-temperature at Port Erin and Millport, gonads.

**Mortensen T.** - *Echinoidea* and *Ophiuroidea*. – 9 pls., Discovery Rep., Discov. Comm. Colon. Off. London. XII. 199-348. Cambridge Univ. Press. London (1936).
**b - 887**

**Panning A.** - Die Gattung *Holothuria* [*Genus Holothuria*]. 32 Abb., Mitt. zool. Inst. Hamburg, 4, 85-107. Hamburg (1935).
**b - 888**

Beschreibung der Gruppen und Arten; Verbreitungskarten.

**Panning A.** - Ueber die Veränderlichkeit der Merkmale der Gattung *Holothuria* [*De variabilitate characteristicarum ad genus Holothuria pertinentium*]. 19 Abb., Zool. Jahrb., Syst., Ökol. u. Geogr. Tiere LXVII, 1-28. Jena (1935).
**b - 889**

Untersuchung der Veränderlichkeit in Bezug auf die Farbe, die Dichte der Haut, Anzahl der Füsse, Tentakeln, die Polischen Blasen, die Steinkanäle und die Spicula. Uebersichtliche Tafel über die Entwicklung der verschiedenen Formen von Spicula bei den Holothurien.

**Panning A.** - Seewalzen. (Zoologische Ergebnisse der Reisen von Dr. Kohl-Larsen nach den Subantarktischen Inseln bei Neuseeland und nach Südgeorgien 10) [*Holothuria* (*Resultatus zoologici expeditionum Doct.* Kohl-Larsen *peractarum ad insulas subanrctaticas, Novam Zelandiam et Georgiam meridionalem*)]. 8 Abb., Senckenbergiana, XVIII, 1/2, 10-20. Frankfurt a. M. (1936).
**b - 890**

Beschreibung von 5 Arten, von denen *Paracucumis antarctica* Mortensen aus besonderem Interesse ist.

**Tortonese E.** - Note intorno a due Oloturie del golfo di Genova [*Notae de duabus Holothuriis Sinus Genuensis*]. 3 fig., Boll. Zool., VI, 5/6, 317-324. Napoli (1935).
**b - 891**

L'A. descrive due Oloturie, *Holothuria Helleri* e *Thyone fusus*, nuove per il Mar Ligure e pescate a m. 0,70 di profondità a Levante (La Spezia).

**Tortonese E.** - Gli Echinodermi dei mari italiani [*Echinodermata marium Italicorum*]. Atti Soc. It. Sc. Natur., Mus. Civ. St. Nat., LXXV, 3/4. 277-294. Milano (1936).
**b - 892**

L'A. dà alcune brevi notizie sugli Echinodermi che abitano i nostri mari, assieme ad alcune chiavi dicotomiche artificiali, che conducono a determinare in modo semplice 81 specie.

**Van Weel P. B.** - Ueber die Lichtempfindlichkeit der Ambulakralfüsschen des Seesterns (*Asterias rubens*) [*De sensibilitate, lucis causa in pedibus ambulatoriis speciei « Asterias rubens »*]. 2 Abb., Arch. Néerl. Zool., I, 347-353. Leiden (1935).
**b - 893**

Die Ambulakralfüsschen des Seesterns und wahrscheinlich auch die Endtentakeln scheinen gegen Lichterregungen zu reagieren.

## Mollusca.

**Abe N.** - The Colony of the Littorina: *Littorivaga brevicula* (Phillippi) [*Quaestio de colonia a specie « Littorivaga brevicula » constituta*]. Scient. Rep. Tôhoku Imp. Univ., 7 th ser., Biol., IX, 279-296. Sendai (1936).
**b - 894**

**Adam W.** - Notes sur les Gastéropodes. Le genre *Cryptobia* Deshayes 1863 [*Notae de Gasteropodis. Genus Cryptobia* Deshayes *1863*]. Bull. Mus. R. Hist. Natur. Belgique, XI, 19, 1–5. Bruxelles (1935).
**b - 895**

L'A. arrive à la conclusion que les tubes spiralés que l'on trouve dans les couraux solitaires des genres *Heteropsammia* et *Heterocyathus* appartiennent aux sipunculides du genre *Aspidosiphon* Diesing 1851, et que le nom *Cryptobia* doit disparaître comme genre de Mollusque et doit être placé dans la synonymie de ce genre.

**Adam W. & Leloup E.** - Les *Crepidulae* de la côte occidentale de l'Afrique [*Crepidulae litoris Africani quod ad occasum spectat*]. 3 tab., 7 figs. h. t., Mém. Mus. R. Hist. Natur. Belgique., Sér., 2, 3, 349-368. Bruxelles (1936).
**b - 896**

Revision des différentes espèces et variétés qu'on a signalées (*C. porcellana, C. adausonia, C. goreensis, C. epatica, C. adspersa, C. aculeata*) afin de savoir à quelles espèces appartiennent les crepidules de la côte occidentale d'Afrique: il n'existe qu'une seule espèce: *Crepidula porcellana* Lamarck, qui montre une variabilité infinie dans sa forme, sa couleur et sa sculpture.

**Ahrberg P.** - Ueber den feineren Bau der Perlmutter von Schnecken und Cephalopoden [*De constitutione subtili conchae margaritiferae Molluscorum et Cephalopodorum*]. 3 Abb., 2 Taf., Arch. Mollusk., LXVII, I, 1-20. Frankfurt a. M. (1935).
**b - 897**

Der feinere Bau der Perlemutter bei *Turbo, Trochus* und *Nautilus* stimmt mit dem der Pelecypoden überein. Beschreibung der verschiedenen Schichten. Wachstum.

**Alcasid G. L.** - New or Interesting Philippine Shells [*Nova et notanda Mollusca ex insulis Philippinis*]. 4 pl., Philippine Journ. Sc., LX, 4, 421-424. Manila (1936).
**b - 898**

Description of *Pedalion cumingii, Ostrea glomerata, Pyrula dussumieri* and *Hidatina albo-cincta.* Synonymies, distribution and localities.

**Amemiya I.** - Effect of Gill Excision upon the Sexual Differentiation of the Oyster, *Ostrea gigas* Thunberg [*Excisionis effectus branchiarum in differentiationem sexualem ostreae « Ostrea gigas »*]. (In Jap.). Nipp. Gakuz. Kyôkwai Hôkoku, X, 4, 1023-1026 (?) (1935).
**b - 899**

Results of observation on the effect of the excision of about one third of each of all gill lamellae in late autumn, i. e., at the time when the gonad of the oyster becomes neutral. The condition, provoked by the excision induces oysters to differentiate more strongly towards the male sex than towards the female.

**Ankel W. E.** - Die Netz- Reusenschnecke, ein Aasfresser im Watt [*« Nassa reticulata », species quae animalium cadavera manducat*]. 5 Abb., Nat. u. Volk, LXVI, 7, 341-345. Frankfurt a. M. (1936).
**b - 900**

Etwas über die Netz- Reusenschnecke (*Nassa reticulata* und *N. mutabilis* aus dem Mittelmer) und ihre Nahrungmweise mit besonderer Berücksichtigung ihrer sich bei des-Essen bedienenden Reibzunge.

**Ankel W. E.** - *Prosobranchia.* – Die Tierwelt d. Nord- u. Ostsee, gegr. v. G. Grimpe u. E. Wagler hrsg. G. Grimpe. Lief. 29, Teil IX. Akad Verlagsg. Leipzig (1936). **b - 901**

Die Prosobranchierfauna der Nord- und Ostsee bietet besonderes Interesse dar, weil sie den Charakter einer Mischfauna hat. Biologie, Physiologie und Entwicklungsgeschichte von 175 Arten.

**Baba K.** - Report of the Biological Survey of Mutsu Bay (27). *Nudibranchia* of Mutsu Bay [*Relatio de biologicis inquisitionibus in Baja* Mutsu. *Nudibranchiata in Baja* Mutsu]. 17 figs., 3 pls., Sc. Rep. Tohôku Imp. Univ., Ser. 4, Biol., X, 2, 331-360. Sendai (1935). **b - 902**

Description of 19 species, of which *Drepania japonica* is new. Two species make a new record of habitat in this region.

**Baba K.** - A General Sketch of the Molluscs Inhabiting the Coral Reef of the Okinawa Islands [*Descriptio generalis Molluscorum viventium in scopulis coralliferis insularum* Okinawa]. (In Jap.). 3 pls., Venus, V, 2/3, 99-102. Kyoto (1935). **b - 903**

**Baker F. & Spicer V. D. P.** - New Species of Mollusks of the Genus *Triphora* [*Molluscorum species novae ad genus «Triphora» pertinentes*]. 1 pl., Trans. San Diego Soc. Natur. Hist., VIII, 7, 35-46. San Diego (1935). **b - 904**

*Triphora ofuensis* n. sp., *T. abbotti* n. sp., *T. granti* n. sp., *T. peleae* n. sp., *T. cookeana* n. sp., and *T. stephensi* n. sp.

**Bonnot P.** - Report of the Oyster Investigation at Humboldt Bay for 1935 [*Relatio de investigationibus circa Ostreas in Sinu* Humboldt *A. 1935*]. 1 map, 6 figs., Calif. Fish & Game, XXII, 4, 284-294. Sacramento (1936). **b - 905**

On account of some mistakes made in transplants by growers A. here gives some information on the spawning, setting and manner of collecting oysters. The methods now used for catching and growing oysters are rapidly increasing the total population of oysters in the bay.

**Bunting L. E., Eslick A., Jones J. W. & Orton J. H.** - Rate of Growth of *Cardium edule* [*Velocitas accretionis speciei « Cardium edule »*]. 1 graph., Nature, CXXXVII, 3469, 705-706. London (1936). **b - 906**

Report on experiments undertaken to study the growth of the cockle in an artificial marine lake near New Brighton and in Morecambe Bay in which habitats the legal size was attained in about fifty per cent of the population in two summers and in almost the entire population in three summers.

**Cadenat J.** - Note sur un Céphalopode géant (*Architeuthis Harveyi* Verrill) capturé dans le Golfe de Gascogne [*Notae de cephalopodo quodam gigante « Architeuthis Harveyi », in Sinu Vasconico capto*]. Bull. Mus. Nat. Hist. Natur., Sér. 2, VIII, 3, 277-285. Paris (1936). **b - 907**

Dimensions, caractères principaux, distribution géographique et historique des captures du genre *Architeuthis.*

**Coen G.** - *Mytilodonta* nuovo genere di Molluschi lamellibranchi [« *Mytilodonta* », *genus novum Molluscorum Lamellibranchiatorum*]. 1 tav., Acta Pont. Ac. Sc., Novi Lyncaei, LXXXVIII, 298-301. Roma (1934-1935), **b - 908**

L'esame di molluschi del lago Salmastro di Paola (attuale Sabaudia) ha permesso all'A. di scoprire una nuova forma, *Mytilodonta* gen. nov., che formerà la specie *Mytilodonta Paulae* nov. spec.

**Douvillé H.** - Le test des Lamellibranches: sa formation dans l'*Ostrea edulis* [*Concha in Lamellibranchiatis et eius constitutio in specie « Ostrea edulis »*]. C. R. Acad. Sc., CCIII 20, 965-968. Paris (1936). **b - 909**

La structure et la formation de la coquille des Aviculidés, *Cardium, Mytilus, Cardita, Pectunculus, Corbis* sont comparées à celles des Ostréidés (*Ostrea edulis*) où le périostracum fait défaut et la formation des couches externes proprement dites n'a pas lieu. La succession de la formation des différents éléments.

**Feliksiak S.** - *Alderia modesta* (Lovén) w zatoce Puckiej. [« *Alderia modesta* » *in sinu* Puck]. (In Poln., Dtsch. Rés.) Fragm. faun. Mus. zool. Polon., II, 26, 299-303. Warszawa (1936). **b - 910**

Bericht über drei im August 1935 gefundene Exemplare. Hydrologische Verhältnisse des in Verbindung mit dem Wiek von Puck stehenden Grabens.

**Fiedler R. H.** - The Story of Oysters [*Ostrearum historia*]. 21 figs., U. S. Dpt. Comm., Bur. Fish., Fish. Circ. 21, 1-29. Washington D. C. (1936). **b - 911**

Introduction. Biology of the oyster, culture and enemies. The oyster fishery and industry. Sanitary regulations. Food value of oyster.

**Fox D. L.** - The Habitat and Food of the California Sea Mussel [*De habitat et alimentatione Lamellibranchiatorum marinorum ad Californiam pertinentium*]. Bull. Scripps Instit. Oceanogr., Techn. Ser., IV, 1, 1-64. Berkeley, Calif. (1936). **b - 912**

Introduction to the report, published by the author in collaboration with W. Marks, F. O. Austin, H. M. Buley; the report describes the habitat of the mussel, the kinds of material and organisms that it may swallow, and the kinds of substances which, once swallowed, it may digest and utilize as food, or pass out relatively unchanged. Bibl.

**Fox D. L.** - The Habitat and Food Sea Mussel. Certain Physical and Chemical Properties of the Fecal Pellets and Some Experimental Feeding [*De habitat et alimentatione Lamellibranchiatorum. Peculiaritates physicae et chemicae globulorum fecalium et resultatus ex alimentatione experimentali*]. 1 table. Bull. Scripps Instit. Oceanogr., Techn. Ser., IV, 1, 49-60. Berkeley, Calif. (1936). **b - 913**

Results of an analysis of the fecal matter and the digestive diverticula of *Mytilus californianus.* Description of the nervous means possessed by these Lamellibranchs which allow them to recognize injurious and unwanted detritus, and of the muscular, and ciliary mechanisms for rejecting it.

**Haas F.** - *Mollusca Bivalvia.* – Teil I. zahlr., Fig., Bronns Kl. u. Ordn. Tierreichs 3 Abt., III, Lief. 5, 6, 7, S. 545-984. Akad. Verlagsg. Leipzig (1934 & 1935). **b - 914**

Eingehende anatomische und morphologische Untersuchung. Bibl.

**Hatton H.** - Observations sur l'habitat et sur la croissance de *Patella vulgata* L. [*Observationes quoad habitat et accretionem speciei « Patella vulgata »*]. Bull. Lab. Marit. Dinard, XV, 17-20. Rennes (1936). **b - 915**

L'habitat des jeunes exemplaires déborde largement celui des adultes. La densité de la population est plus forte sur les rochers bien battus et aussi plus forte la vitesse de croissance; influence du niveau.

**Hervé F.** - L'huître perlière et la perle dans les lagons de l'archipel des Tuamotu [*De Ostrea margaritifera deque margarita in lacubus archipelagi* Tuamotu]. 2 pl., Inst. Océanogr. Indochine (Communicat. 5 Congrès Pacifique Vancouver 1933), 29, 73-212. Saigon (1936). **b - 916**

Organisation intérieure, reproduction, évolution de l'embryon, formation de la coquille et ennemis de l'huître perlière. Conditions physiques et biologiques du développement. Les bancs nacriers de l'archipel des Tuamotu. Les différentes formations perlières, le commerce et la culture de l'huître perliére. Législation en vigueur.

**Hoffmann H.** - *Mollusca Opisthobranchia.* – 120 Abb., Bronn. Kl. Ordn. Tierreich, III, Abt. 2: *Gastropoda,* Buch 3: Lief. 4, 489-640. Akad. Verlagsg. Leipzig (1935). **b - 917**

Fortsetzung des Abschnitts über Drüsen; Bindegewebe, Muskulatur und Sinnesorgane.

**Ino T.** - Epipode as a Taxonomic Character of Japanese Abalones [*De epipodite perinde ac charactere taxonomico Haliotidarum japonensium*]. (In Jap.: Engl. Rés.). 1 fig., Bull. Jap. Soc. Scient. Fish., V, 3, 175-176. Tokyo (1936). **b - 918**

The epipode, a dorso-lateral outgrowth of the foot, has been examined in four important Japanese forms of *Haliotis,* three of which can easily be distinguished by this formation.

**Iredale T.** - Two New Generic Names for South Australian Marine *Mollusca* [*Nomina duo nova generica pro Molluscis marinis ad Australiam merid. pertinentibus*]. S. Austral. Nat., XV, 2, 57-58. Adelaide (1934). **b - 919**

*Cottonia,* types: *Scaphella dannevigi* Verco, *Voluta nodiplicata* Cox, and *Godfreyena,* type: *Cominella torri* Verco.

**Kanamaru T.** - A History of Japanese Conchology [*Historia conchologiae Japonicae*]. (In Jap.). 2 figs., Venus, V, 2/3, 112-117. Kyoto (1935). **b - 920**

**Kuroda T.** - A List of the Genera of Japanese Molluscs. 6 [*Elenchus generum Molluscorum Japonicorum*]. (In Jap.). Venus, V, 2/3, 123-141. Kyoto (1935). **b - 921**

**Kuroda T.** - A List of Japanese Species of *Buccinum* [« *Buccinum* ». *Elenchus specierum Japonicarum*]. (In Jap.). Venus, V, 2/3, 149-161. Kyoto (1935). **b - 922**

**Labbé A.** - Les Silicodermés du Muséum National d'Histoire Naturelle. II° Organisation [*Silicodermata ad Museum Nationale pro Historia naturali pertinentia. II. Ratio*]. 104 figs., Ann. Inst. Oceanogr., XVI, 2, 101-221. Paris (1936). **b - 923**

Organisation des Silicodermés. Morphologie externe et interne; système nerveux; Organes des sens. La fonction possible des yeux dorsaux; les yeux semperiens et leur développement. Système digestif, système circulatoire, respiration branchiale et cutanée, le complexe rénal. Les organes de reproduction et l'appareil d'accouplement. La fonction silicigène, le metabolisme de la silice, les organites siliceux. Distribution géographique et phylogénie.

**Lamy E.** - Note sur le *Cytherea Callosa* Conrad (*Moll. Lamellibr.*) [*Notae de « Cytherea callosa »*]. Bull. Mus. Nat. Hist. Natur., Ser. 2, VIII, 2, 158-159. Paris (1936). **b - 924**

Note systématique; par l'examen des synonymies on peut distinguer quatre espèces: *Amiantis callosa, Chione fluctifraga, C. undatella, C. succincta.*

**Lamy E.** - Huîtres de l'Indochine [*Ostreae Indosinenses*]. Bull. Mus. Nat. Hist. Natur., Sér. 2, VIII, 427-434. Paris (1936). **b - 925**

Collection provenant de la Station de Cauda. Description de *Ostrea denselamellosa, O. margaritacea, O. gigas O. plicatula, O. Forskali, O. rivularis* et 6 autres espèces.

**Lebour M. V.** - Notes on the Eggs and Larvae of some Plymouth Prosobranchs [*Notae de ovis et larvis aliquorum Prosobranchiatorum ad* Plymouth *pertinentium*]. 3 pls., Journ. Mar. Biol. Ass., XX, 3, 547-565. Plymouth (1936). **b - 926**

About 18 species are considered, hitherto unknown or imperfectly known; some have not yet been identified but they may form a basis for future examinations on account of their size.

**Linke O.** - Beiträge zur Sexualbiologie der Littorinen [*Contributiones in biologiam sexualem Littorinarum*] Ztschr. f. Morphol. u. Oekol. Tiere, XXVIII, 170-177. Berlin (1934). **b - 927**

**Lozano Rey L.** - El *Loligo forbesi* St. en el mercato de Madrid [*Species « Loligo forbesi » in foro Matritensi*]. 2 fig., Bol. Soc. Españ. Hist. Nat., XXXVI, 1, 47-48. Madrid (1936). **b - 928**

Abundancia extraordinaria de un calamar diferente del común: *Loligo forbesi* no citado en el litoral español, en el mercato madrileño, su abundancia se debe a los procedimentos actuales de pesca.

**McLean R. A.** - A New Deep-water *Lucina* from off Maryland [« *Lucina* ». *Species nova in aqua profunda vivens ad* Maryland]. 2 figs., Nautilus, XLIX, 3, 87. Philadelphia (1936). **b - 929**

*Lucina (Lucinoma) atlantis* n. sp.

**Moll F.** - Le Teredini del Mediterraneo dal punto di vista tecnico [*Teredinidae maris Mediterranei technicae praesidio perpensae*]. Boll. Pesca, Piscicult. Idrobiol., XI, 6, 838-843. Roma (1935). **b - 930**

L'A. traccia un quadro storico delle conoscenze sui danni arrecati dalle Teredini alle costruzioni navali e portuarie e richiama l'attenzione sui mezzi tecnici opportuni per salvaguardare tutte le parti in legno sommerse.

**Odhner N. Hj.** - *Nudibranchiata Dendronotacea.* A Revision of the System [*Nudibranchiata Dendronotacea. Systematis reinspectio*]. 47 figs., 1 pl., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 1057-1127. Bruxelles (1936). **b - 931**

Revision of the system of the *Dendronotacea* based on material belonging to the Swedish State Museum. Synopsis of the familiae, genera and species of *Dendronotacea* and particuliar description of every form of these *Nudibranchiata.*

**Onoyama T.** - A Narrative of the Collecting Trip to the South Sea Islands [*Navigationis enarratio ad collectionem colligendam in insulas marium Meridionalium*]. (In Jap.). Venus, V, 2/3, 161-174. Kyoto (1935). **b - 932**

Biological and faunistical notes on molluscs.

**Orton J. H.** - Habit and Shell- shape in the Portuguese Oyster, *Ostrea angulata* [*Consuetudines et conchae forma in Ostrea Lusitana « Ostrea angulata »*]. Nature, CXXXVIII, 3489, 466-467. London (1936). **b - 933**

The different forms of the shells of *Ostrea angulata* living on the shore and permanently below tide-marks are described, and an attempt to explanation of this fact is made referring to different habits of controlling the extension of the mantle in the two habitats.

**Pérez C.** - L'éthologie des Mollusques et son importance pour la philosophie zoologique [*De ethologia Molluscorum eiusque momento pro philosophia zoologica*]. Rev. Scient., LXXIV, 5, 129-131. Paris (1936). **b - 934**

Remarques génerales sur les études biologiques; récension du livre de Paul Pelseneer « Essai d'éthologie zoologique d'après l'étude des Mollusques », Bruxelles 1935.

**Pierantoni U.** - Gli organi luminosi e la luminescenza di *Octopodoteuthis sicula* Rüppell. (*Veranya sicula*) [*Organa luminosa atque luminescentia speciei « Octopodoteuthis sicula »*]. Atti R. Acc. Sc. Fis., Mat. & Natur., XX, Ser. 2, 3, 1-12. Napoli (1935). **b - 935**

Viene studiata sul vivo la luminescenza di un raro cefalopodo di profondità, ed in rapporto con queste osservazioni è presa in esame l'anatomia del capo e dei tentacoli, per giungere a precise conclusioni sulla struttura degli organi luminosi, del tutto sconosciuti ed erroneamente interpretati dagli AA. che prima d'ora li segnalarono.

**Pilsbry H. A.** - *Ostrea kamehameha*, new Name for *Ostrea bryani* Pils [*« Ostrea kamehameha » nomen quoddam novum assignandum speciei « Ostrea bryani »*]. Nautilus, XLIX, 3, 103-104. Philadelphia (1936). **b - 936**

**Powell A. W. B.** - Five New Species of Pelecypod *Mollusca* from New Zealand [*Quinque species novae Molluscorum pelecypodorum ad Novam Zelandiam pertinentium*]. 1 pl., Proc. Malac. Soc. London, XXI, 4. 255-258. London (1935). **b - 937**

*Lissarca stewartiana* n. sp., *Perrierina substriata* n. sp., *Legrandina harrisonae* n. sp., *Hochstetteria acutangula* n. sp. and *Lasaea parengaensis* n. sp.

**Pruvot-Fol A.** - Morphologie du pied des Mollusques. Ses homologies. (Communication préliminaire) [*Morphologia pedis Molluscorum. Homologiae*]. Verhandl. Schweiz. Naturforsch. Ges., 117. Jahresversamml. in August 1936 in Solothura, 327-328. Kommissionsverlag H. R. Sauerländer & Cie. Aarau (1936). **b - 938**

Critique de la division du pied des Mollusques selon Huxley. Etude analytique sur le propodium, le mesopodium, le metapodium et l'epipodium.

**Rao K. V.** - The Morphology of *Kalinga ornata* (Ald. & Han.) [*Morphologia speciei « Kalinga ornata »*]. 22 figs., 1 pl., Rec. Indian Mus., XXXVIII, 1, 41-79. Calcutta (1936). **b - 939**

The object of this paper is to furnish a detailed morphological account of a typical holohepatic nudibranch Mollusc of the tropics; and for this purpose *K. ornata* (Alder & Hancock) which is widely distributed in the Indian and Pacific Oceans, has been chosen, and a study of its complete external and internal morphology attempted.

**Rao Srinivasa H.** - Observations on the Rate of Growth and Longevity of *Trochus niloticus* Linn. in the Andaman Is. [*Observationes de accretionis velocitate et longevitate speciei « Trochus niloticus » in insula* Andaman]. 1 pl. o. t., 5 tabl., Rec. Indian Mus., XXXVIII, 4, 473-498. Calcutta (1936). **b - 940**

Important conclusions are obtained with regard to the relationship between growth in diameter and growth along the whorls of the shell, the monthly rate of growth, the variation in rate of growth of various species and of the shell, the longevity and its variations.

**Rao Srinivasa H. & Raja K. C. K. E.** - A Statistical Study of the Data of Growth in Shell of *Trochus niloticus* Linn. in Andaman Waters [*Studium statisticum de accretione conchae speciei « Trochus niloticus » in aqua insulae* Andaman]. Tabl., Rec. Indian Mus., XXXVIII, 4, 499-502. Calcutta (1936). **b - 941**

Mean monthly rates of growth classified according to size or age, season and sex, univariate, bivariate and trivariate analysis of variance of mean rates of growth.

**Regenfuss F. M. & Schnack F.** - Das kleine Buch der Meereswunder – Muscheln und Schnecken [*Liber de maris rebus mirificis. Mollusca et conchae*]. 24 Taf., 39 *S.* Insel-Verlag. Leipzig (1936). **b - 942**

Kolorierte Stiche von Regenfuss mit Geleitwort von Schnack.

**Rehder H. A.** - New Caribbean Marine Shells [*Mollusca nova Maris Caraibici*]. 1 pl., Nautilus, XLVIII, 4, 127-130. Philadelphia (1935). **b - 943**

*Modiolus (Amygdalum) sagittatus* n. sp., *Paurodiscus lamellifera* n. sp., *Sayella livida* n. sp.

**Robert P. A.** - Kunstgebilde des Meeres: Muscheln und Schneckengehäuse [*Maris artificia. Mollusca et conchae sicut habitationes*]. 15 S., 15 Taf. Weller Verlag. Leipzig (1936). **b - 944**

**Salisbury A. E.** - On the Nomenclature of *Tellinidae* with Descriptions of New Species and some Remarks on Distribution [*« Tellinidae ». De nomenclatura cum descriptionibus novarum specierum deque distributione*]. 6 pls., Proc. Malac. Soc. London XXI, 2, 74-91. London. (1934). **b - 945**

List of generic and subgeneric names with types. A great number of new names suggested.

**Suzuki S.** - Notes on the Behaviour of *Nerita japonica* Dunker [*Notae de ratione agendi speciei « Nerita japonica »*]. 11 figs., Scient. Rep. Tôhoku Imp. Univ., 4 th. ser. (Biol.), IX, 4, 297-314. Sendai (1935). **b - 946**

Habitat, movement, water and light conditions.

**Taki I. A.** - A List of the Genera of Japanese Cephalopods [*Elenchus generum Cephalopodorum Japonicorum*]. (In Jap.). Venus, V, 2/3, 141-145. Kyoto (1935). **b - 947**

List of 56 genera.

**Thiele J.** - Handbuch der systematischen Weichtierkunde. Vierter Teil [*Liber manualis pro Molluscorum investigationibus systematicis*]. 4 Abb., 1023-1154. Gustav Fischer. Jena (1935). **b - 948**

Letzter Teil des Handbuches. Grundlagen des natürlichen Systems der Mollusken. Grundzüge der Stammesgeschichte der Mollusken. Paläontologie und Phylogenie. Geographische Verbreitung der Weichtiere. Nomenklatur und Literatur.

**Thorson G.** - Biologische Studien über die Lamellibranchier *Modiolaria discors* L. und *Modiolaria nigra* Gray in Ostgrönland [*Studium biologicum de Lamellibranchiatis « Modiolaria discors » et « Modiolaria nigra » in Groenlandia orientali*]. 6 Abb., Zool. Anz., CXI, 297-304. Leipzig (1935). **b - 949**

Eingehende Studien über die Fortpflanzungsverhältnisse; es ist u. a. festgestellt worden, dass diese 2 *Modiolaria*- Arten keine pelagischen Larvenstadien besitzen und dass sie deutliche protrandrische Hermaphroditen sind.

## Arthropoda varia.

**Exline H. J.** - Pycnogonids from Puget Sound [*Pycnogonida ad Strictum* Puget *pertinentia*]. Proc. U. S. Nat. Mus., LXXXIII, 2991, 413-422. Washington (1936). **b - 950**

Description of five species, three of which are new: *Nymphon solitarium* n. sp., *N. turritum* n. sp., *Ammothea discoidea* n. sp. Key to the Pycnogonids of the Puget Sound.

**Helfer H.** - The Fishery Grounds near Alexandria. *Pantopoda* [*Fundi piscatorii apud Alexandriam. Pantopoda*]. Fish. Res Directorate, Min. Comm. & Ind., VIII, Not. & Mém. 16, 1-6. Cairo (1936). **b - 951**

Description of 4 species, two of which were larvae, collected by Prof. Steuer in autumn 1933 near Alexandria.

**Lundbeck J.** - Ueber die Bodenbevölkerung, besonders die Chironomidenlarven, des Frischen und Kurischen Haffes [*De fundi populatione in regionibus nomine* Frisches Haff *et* Kurisches Haff. *Agitur particulatim de larvis ad Chironomidas pertinentibus*]. 1 Abb., 4 Tab., Int. Rev. ges. Hydrobiol. u. Hydrogr., XXII, 265-284. Akad. Verlagsg. Leipzig (1935). **b - 952**

Verzeichnis der gefundenen Chironomidenlarven. Die Bodenbesiedlung im Frischen und Kurischen Haff. Vergleich zwischen den beiden Haffen.

**Schulz E.** - *Actinarctus doryphorus* nov. gen. nov. spec., ein merkwürdiger Tardigrad aus der Nordsee [*« Actinarctus doryphorus », tardigradus notandus maris Nordici*]. 6 Abb., Zool. Anz., CXI, 285-288. Leipzig (1935). **b - 953**

Diese Art ist zum erstenmal im Spätsommer 1934 im Helgoländer Amphioxussand auf dem Echinoderm *Echinocyamus pusillus* gefunden worden. Beschreibung und Genusdiagnose.

**Tokunaga Masaaki** - *Chironomidae* from Japan. VIII. Marine or Seashore *Spaniotoma*, with Descriptions of the immature Forms of *Spaniotoma nemalione* sp. nov. and *Tanytarsus boodleae* Tokunaga [*Chironomidae a Japonia provenientes. VIII. De « Spaniotoma » marina vel litorea atque de formis immaturis specierum « Spaniotoma nemalione » et « Tanytarsus boodleae »*]. 1 fig., 2 pl., Phil. Journ. Sc., LX, 3, 303-319. (Contr. Seto Mar. Biol. Lab. N. 52). Manila (1936). **b - 954**

Material was collected from the Pacific Coast of Kii Peninsula. Description of *Spaniotoma (Smittia) littoralis* n. sp., *S. bifurcata* n. sp. and *S. endocladiae*.

**Viets K.** - The Fishery Grounds Near Alexandria. IV. Some Marine Mites from Alexandria [*Fundi piscatorii Alexandriae. IV. Tarla marina, Alexandriae*]. 5 figs., 1 chart, Fish. Research Direct., Notes & Mem., 11, 1-3. Cairo (1935). **b - 955**

Description of the distribution of four forms and diagnosis of one new form of marine mites, which are the first known and recorded from the Egyptian part of the Mediterranean. The new species is *Halacarus (Halacarus s. str) aegyptus* n. sp.

**Viets K.** - Spinnentiere oder *Arachnoidea*. VII. Wassermilben oder Hydracarinen [*Arachnoidea. VII. (Hydracarina)*]. 306 Abb., Die Tierwelt Deutschl. u. angr. Meeresteile begr. v. Prof. F. Dahl weitergeführt v. M. Dahl u. Prof. K. Bischoff. 31. Teil, erste Hälfte, 1-288. Verl. Fischer. Jena (1936). **b - 956**

Eine Gruppe der Hydracarinen umfasst die Meeresmilben oder *Halacaridae*.

## *Crustacea.*

**André M.** - Sur le *Cancer personatus* Linné [*De specie « Cancer personatus »*]. Bull. Mus. Nat. Hist. Natur., VIII, Sér. 2, 1, 92-93. Rennes (1936). **b - 957**

Synonymies. On doit employer le nom de *Dorippe lanatus* L.

**Balss H.** - Ueber *Sesarma (Chiromantes) kamermani* de Man (*Crustacea Decapoda*) [*De Sesarma (Chiromantes) kamermani*]. 1 Taf. a. T., Bull. Mus. R. Hist. Natur. Belgique, XII, 30, 1-3. Bruxelles (1936). **b - 958**

Von dieser Art ist früher nur ein Exemplar von Mussera (Angola) bekannt geworden, das De Man in « Notes from Leyden Mus. » V, 165, 1883 beschrieben hat, Beschreibung und Verwardtschaft.

**Balss H.** - The Fishery Grounds near Alexandria. *Decapoda* [*Fundi piscatorii Alexandriae. Decapoda*]. 40 figs. Fish. Res. Directorate, Min. Comm. & Ind., VII, Not. & Mém. 15, 1-67. Cairo (1936). **b - 959**

Systematic list of 63 species, 51 of which belong to the Mediterranean fauna. Habitat and geographical distribution. List of the Stations and of the *Decapoda* found at them. Comparison of *Decapoda* near Alexandria with those of the Adriatic.

**Barnard K. H.** - Isopods collected by the R. I. M. S. « Investigator » [*Isopoda collecta a navi ad explorationes idonea, nomine* « Investigator »] 12 figs., Rec. Indian Mus., XXXVIII, 2, 147-191. Calcutta (1936). **b - 960**

A collection of 34 species, littoral, shallow-water and deep-water species. Seven spp. are described as new. For every species are given: bibliographical records, localities, remarks, distribution and of the new forms descriptions.

**Brehm V. & Chappuis P. A.** - Mitteilungen von der Wallacea - Expedition. 11. *Diaptomus* s. l. (*Heliodiaptomus ?*) *kieferi* n. sp. und *Schizopera tobae* subsp. nov. *Woltereck*i [*Informationes de expeditione nomine* Wallacea 11]. 4 Abb., Zool. Anz., CXI, 9/10, 237-240. Leipzig (1935). **b - 961**

Beschreibung und Ortsangabe.

**Burkenroad M. D.** - The *Aristaeinae, Solenocerinae* and Pelagic *Penaeinae* of the Bingham Oceanographic Collection [« *Aristaeinae* » « *Solenocerinae* » et « *Penaeinae* » *pelagicae ad collectionem oceanographicam* Bingham *pertinentes*]. 71 fig., Bull. Bingham Oceanogr. Coll., Peabody Mus. Nat. Hist., V, 2, 2-151. New Haven, Conn (1936). **b - 962**

The material was principally obtained during the Atlantic, Pacific, Bermudan and Bahaman operations of the S. S. « Pawnee ». List of stations, systematic description and discussion of genera and species of Decapod Crustaceans collected. The *Aristaeinae* and *Solenocerinae* are chiefly Oceanic, the *Penaeinae* and *Eusicyoninae* chiefly littoral in habitats. The litoral peneid faunas of the Atlantic and Pacific American coast are more nearly related to one another than to the faunas of other regions of the world; the deep-water forms common to Atlantic, Indo-pacific and Pacific-America are found to have maintained their identity by circumferential continuity.

**Chopra B.** - Further Notes on *Crustacea Decapoda* in the Indian Museum. VIII [*Notae ulteriores de Crustaceis decapodis ad Museum Indianum pertinentibus. VIII*]. 18 figs., Tables, 1 pl., Rec. Indian Mus., XXXVIII, 4, 463-514. Calcutta (1936). **b - 963**

Notes on the Decapod Crustaceans collected bythe Bengal Pilot Service off the mouth of the Hooghly River; account of the remaining crabs, comprising *Brachygnatha* (*Oxyrhyncha and Brachyrhyncha*), of which the *Corystida, Gomeza distincta* (de Hann) var. *indica* is new to science.

**Clarke G. L.** - Factor affecting the vertical Distribution of Copepods [*Factores qui influunt in distributionem verticalem Copepodorum*]. Ecol. Monogr., IV, 530-540. Durham, N. C. (1934). **b - 964**

Influence of light, gravity, weight, temperature on the vertical distribution of Copepods, which can adjust their position with the necessary speed through their own swimming activity.

**Clarke G. L.** - The Rôle of Copepods in the Economy of the Sea [*Functio Copepodorum pro maris oeconomia*]. Proc. Fifth Pacific Sc. Congress Victoria & Vancouver, 2017-2022. Toronto (1934). **b - 965**

Importance of the Copepods as food for Fishes and Cetaceans. Studies on the food of the Copepods for the determination of the economy of the sea.

**Coifmann I.** - Alcuni *Mysidacea* nuovi raccolti dal Prof. L. Sanzo nella crociera della Regia nave « Ammiraglio Magnaghi » al Mar Rosso. 1923-24. [*Mysidacea quaedam nova collecta a prof.* L. Sanzo *inter navigationem Regiae navis* « Ammiraglio Magnaghi » *Mari Rubro. 1923/24*]. 5 fig., Boll. Zool. VII, 2/3, 83-88. Napoli (1936). **b - 966**

L'A. illustra alcuni nuovi Misidacei del Mar Rosso; *Pseuderythrops gracilis* n. gen. n. sp., *Meterithrops affinis* n. sp., *Gymnerthrops microps* n. sp., *Echinomysis distinguenda* n. sp.

**Crawford G. I.** - Additions to the Plymouth Marine Fauna (1931) in the Crustacean Orders *Tanaidacea, Isopoda* and *Amphipoda* [*Addenda Crustaceorum ad faunam marinam* Plymouth (*1931*)]. Journ. Mar. Biol. Ass., n. ser., XXI, 1, 95-106. Plymouth (1936). **b - 967**

Systematic list containing 2 species of *Tanaidacea*, 6 of *Isopoda* and 3 of *Amphipoda* collected by A. in 1934-1935.

**Darby H. H.** - The Mechanism of Chela Differentiation in the *Crustacea* [*De differentiatione chelarum in Crustaceis*]. 13 tabl., Pap. Tortugas Labor., XXIX, 153-170. Washington (1936). **b - 968**

This paper presents further evidence on A:s theory of a discontinuous elaboration of a definite chemical entity for the chela differentiation which is comparable with the male sex hormone of other animals. By means of experiments on *Crangon armillatus* it has been possible to determine the time for differentiation of snapclaw, influencing factors as temperature and irradiation.

**David R.** - Recherches sur la biologie et l'intersexualité de *Talitrus saltator* Mont [*Investigationes in biologiam et intersexualitatem speciei* « *Talitrus saltator* »]. 17 fig., Bull. Biol. France et Belgique, LXX, 332-357. Paris (1936). **b - 969**

Epoque de reproduction de cet Amphipode, développement de l'œuf, mue et accouplement. Examen des appareils reproducteurs et présence d'ovocytes qui n'arrivent pas à développement complet dans les testicules de certains exemplaires. Aussi d'autres amphipodes, tels *Talorchestia Deshayesi* et *Orchestia mediterranea, O. gammarella* et *O. Montagui*, présentent d'individus intersexués.

**Dons C.** - Zoologische Notizen. XXVII. Ein gefleckter Hummer [*Notitiae zoologicae. XXVII. Species* « *Homarus vulgaris* » *maculata*]. 2 Abb., Kgl. Norsk. Vidensk. Selsk. Forh., VIII, 6, 21-24. Trondheim (1936). **b - 970**

Bericht über einen am 8. Februar 1935 bei Hopen auf Smöla in Norwegen gefangenen sehr eigentümlich gefärbten Hummer. Versuch zur Erklärung dieser Erscheinung. Beispiele anderer Farben-anomalien bei Hummern.

**Dons C.** - Zoologische Notizen. XXVIII. Isopoden aus der Möre-Küste und Nord-Norwegen [*Notitiae zoologicae. XXVIII. Isopoda provenientia a litoribus regionis* Möre *et Norvegiae septr.*]. 2 Abb., Kgl. Norsk. Vidensk. Selsk. Forh., VIII, 13, 41-43. Trondheim (1936). **b - 971**

Verzeichnis von 20 während der Gunnerus- Expeditioren 1928-34 erbeuteten Isopodenarten.

**Drach P.** - Sur la croissance de l'abdomen chez les Brachyoures; discontinuités chez *Carcinus maenas* Pennaut [*De abdominis accretione apud Brachyura. De discontinuitatibus apud speciem* « *Carcinus maenas* »]. C. R. Soc. Biol., CXVI, 138. Paris (1934). **b - 972**

Description de la mue de puberté et coefficient de dysharmonie dans la croissance de l'abdomen des Brachyoures.

**Drach P.** - Croissance allométrique et dimorphisme sexuel chez les Brachyoures [*Accretio allometrica et dimorphismum sexuale in Brachyuris*]. C. R. Acad., Sc. CCIII, 17, 820-823. Paris (1936). **b - 973**

Relation entre le dimorphisme sexuel et la croissance allométrique de la première paire de péréiopodes chez *Cancer pagurus, Carcinus maenas, Xanto floridus* et *Pilumnus hirtellus.* Le développement des ovaires, consécutif à la mue de puberté, à une action inhibitrice sur la croissance des pinces.

**Edmondson C. E.** - Quantitative Studies of Copepods about the Shores of Oahu [*Studia quantitativa circa Copepoda apud oras maritimas regionis* Oahu]. Proc. Fifth Pacific Sc. Congress 1933, 3, 1997-2001. Univ. Toronto Press. Toronto (1934). **b - 974**

Account of investigations made several times daily at 3 stations about Oahu from September 22. 1931 to September 21, 1932: maximum counts, daily peaks, food conditions.

**Farran G. P.** - *Bradyetes brevis*, a new Species of Copepod from East Greenland [« *Bradyetes brevis* » *nova species Copepodorum in regione Groenlandica orientali*]. Ann. & Mag. Natur. Hist., 10th ser., XVIII, 238-241. London (1936). b - 975

**Farran G. P.** - *Copepoda*. – Scient. Rep. Great Barrier Reef Exped., 1928-1929, V, 3. Brit. Mus. (Natur. Hist.). London (1936). b - 976

Systematic account of the pelagic *Copepoda*. A. distinguishes three groups, the reef forms in shore waters of low salinity, the open epiplankton and the deep-water fauna. Most species belong to the *Calanoidea*, of which 11 new species and 2 new genera are recorded.

**Floris G.** - Sull'allevamento di *Artemia salina* in acquario [*De cultura speciei « Artemia salina » in aquario*]. Rend. Sem. Fac. Sc., R. Univ. Cagliari, IV, 2, 67-72. Cagliari (1934). b - 977

Dopo aver accennato alle condizioni fisiche, chimiche e chimico-fisiche dell'ambiente salino ove vive l'*Artemia*, l'A. descrive i vari tentativi fatti per ottenere l'allevamento in acquario delle *Artemie*, per almeno due generazioni. L'esperimento non ha oltrepassato la prima generazione.

**Fraser F. C.** - On the Development and Distribution of the young Stages of Krill (*Euphausia superba*) [*De accretione et distributione stadiorum juvenilium in specie « Euphausia superba »*]. Discovery Report, XI, 1-192. Univ. Press. Cambridge (1936). b - 978

**Fraser J. H.** - The Occurrence, Ecology and Life History of *Tigriopus fulvus* (Fischer) [*De praesentia, oecologia, cyclo vitae in specie « Tigriopus fulvus »*]. 1 table, 5 figs., Journ. Mar. Biol. Ass., XX, 3, 523-536. Plymouth (1936). b - 979

The A. gives a census of *T. fulvus* from a series of pools in the Isle of Man. Comparison of the various Nauplius and Copepodid stages studied by A. with the results of Guiglia's investigations.

**Gibbons S. G.** - *Calanus finmarchicus* and other Copepods in Scottish Waters in 1933 [« *Calanus finmarchicus* » *et alia Copepoda in aquis Scotis, A. 1933*]. Fish. Scott. Scient. Invest. 1936, II, 1-37. Edinburgh (1936). b - 980

The horizontal net for planctonic collections. Vertical distribution of *Calanus finmarchicus*, percentage of adult females, comparison of day and night hauls. General distribution, comparative sectional examination of the area. Measurement of adults and its relation to spring stock, breeding problems. Other Copepod species, species of infrequent or erratic appearance. Vertical net collection. Males in the adult population: fertilisation problems. Eggs and following developmental stages. Sudden changes in the nature of the plankton. Bibl.

**Glassell S. A.** - New or little known Crabs from the Pacific Coast of northern Mexico [*Cancer novus a litoribus proveniens Mexicanis Oceanum Pacificum spectantibus*]. 8 tabl., Trans. San Diego, Soc. Natur. Hist., VIII, 14, 81-106. S. Diego, Calif. (1935). b - 981

The new spp. belong to *Polyonyx*, *Speleophorus*, *Panoplax*, *Pinnotheres*, *Dissodactylus*, *Pinnixa*.

**Glassell S. A.** - The Templeton Crocker Expedition. I. Six new Brachyuran Crabs from the Gulf of California [*Expeditio nomine* « Templeton Crocker » *I. Cancri sex novi* (*Crustacea*) *Brachyuri Sinus Californiensis*]. Zoologica, XXI, 3, 12-18; 213-218. New York (1936). b - 982

*Mithrax* (*Mithrax*) *mexicanus* Glassell sp. nov., *Stenocionops beebei* Glassel sp. nov. *Actaea crockeri* Glassell sp. nov., *Pilumnus pelagius* Glassell sp. nov., *Chasmocarcinus ferrugineus* Glassell sp. nov., *Cymopolia zacae* Glassel sp. nov. Diagnosis, descriptions and remarks.

**Gordon I.** - On two New Species of *Crustacea* from Christmas Island [*Species duae novae e Crustaceis in insula* Christmas]. 3 figs., Ann. & Mag. Natur. Hist., XVI, 96, 629-637. London (1935). b - 983

*Orthopagurus harmsi* n. sp. and *Gonodactylus quinquelobatus* n. sp., Besides, 11 *Macrura*, 8 *Anomura*, 1 *Brachyura* and 4 *Stomatopoda* are recorded from Christmas and Lingula Isl. and Belawan, Sumatra.

**Gravier Ch.** - Sur un Crustacé (Stomatopode) rare de l'Ile de Pâques [*De Crustaceo quodam raro ad* Ile de Pâques *pertinenti*]. 1 fig., Bull. Mus. Nat. Hist. Natur., Sér. 2, VIII, 3, 254-256. Paris (1936). b - 984

Description de *Pseudosquilla oxyrhyncha* Borradaile, dont un seul autre exemplaire a été trouvé en 1898.

**Gurjanova E.** - Contribution to the Fauna of *Crustacea malacostraca* of the Arctic Region [*Crustacea malacostraca. Contributio in eorum faunam in regione Arctica*]. (In Russ.; Engl. Summ.). 4 figs., Trans. Arct. Inst., XXXIII, 31-44. Leningrad (1936). b - 985

Author gives a list of the species of *Amphipoda* and *Isopoda* collected by the expeditions to the Arctic Institute in 1932, containing information as to the locality where they were gathered. In the studied material of *Amphipoda* from the Kara Sea, the Sea of Brothers Laptev and the Tschukhotsk Sea one genus *Melitoides* Gurjan. and the following three species: *Melitoides makarovi* Gurjan., *Pardaliscella lavrovi* Gurjan., and *Apherusa retovskii* Gurjan., are new to science. Description and diagnosis.

**Gurjanova E.** - Beiträge zur Amphipodenfauna des Karischen Meeres [*Contributio in Amphipodorum faunam in Mari* Karensi]. 3 Abb., Zool. Anz., CXVI, 5/6, 145-152. Leipzig (1936). b - 986

Die hier behandelten, während der « Sedow » Expedition im Sommer 1934 gesammelten, Arten geben sehr wichtige Aufschlüsse über den Faunenwechsel zwischen den Tiefen des Grönländischen und Norwegischen Meeres einerseits und dem Karischen Meere anderseits sowie auch über einige andere zoogeographische Erscheinungen. Drei neue Arten: *Stegocephalopsis wagini* n. sp., *Cressa bereskini* n. sp., *Pardaliscella malygini* n. sp.; 29 Arten sind neu für das Karische Meer.

**Gurney R.** - Notes on some Decapod *Crustacea* of Bermuda. I. The Larvae of *Leptochela* and *Latreutes* [*Notae de Crustaceis Decapodis ex insulis* Bermuda. *I.* « *Leptochela* » *et* « *Latreutes* ». *Larvae*]. 6 pls., Proc. Zool. Soc. London, 4, 785-793. (Contr. Bermuda Biol. Stat. N. 32, St. George's West, Bermuda). London (1935-1936). b - 987

Correspondence in development between *Leptochela*-species from the Barrier Reef and the Bermuda. Five larval stages are distinguished. The mandible of the larva is of perfectly normal Caridean type. The reduction of legs 4 and 5 and the complete absence of their exopods and of pleopod 1 in the larva are facts unknown in any other Caridean. Stage I of *Latreutes*.

**Gurney R.** - Notes on some Decapod *Crustacea* of Bermuda. II. The Species of *Hippolyte* and their Larvae [*Notae de quibusdam Crustaceis*

*Decapodis ex insulis* Bermuda. *II. Larvae generis « Hippolyte »*]. 5 pls., Proc. Zool. Soc. London, 1, 1-32. (Contr. Bermuda Biol. Stat. Nº 39, St. George's West, Bermuda). London (1936). **b - 988**

Until now only one species, *Hyppolyte acuminata* Dana, was recorded from Bermuda. Another species found by A. was compared to American forms and identified as a new subsp., *Hippolyte pleuracantha Bermudensis*. Full description of those forms. Table showing numbers of spines on outer face of merus of 8 forms. Six larval stages, one post-larval stage.

**Gurney R.** - Notes on some Decapod *Crustacea* of Bermuda III–V [*Notae de quibusdam Decapodis* (*Crustaceis*) *ex insulis* Bermuda *provenientibus*]. 70 figs. on 7 pl., Proc. Zool. Soc. London, 3, 619-630. (Contr. Bermuda Biol. Stat. Nº 46, St. George's West, Bermuda). London (1936). **b - 989**

Description of the larvae of several species of *Palaemonidae*, and in particular: *Anchistioides antiguensis*, *Periclimenes americanus*, *Mesocaris recurva*, *and Processa bermudensis*. The first Zoea of *Heteractaea ceratopus*.

**Gustafson G.** - On the *Thalassinidea* of the Swedish West Coast [*Thalassinidea ad litora occid. Suetiae pertinentes*]. 4 figs., Ark. f. Zool., XXVIII A., H, I, 1, 1-19. Stockholm (1935). **b - 990**

*Upogebia deltura*, *U. stellata* and *Callianassa subterranea* which have been formerly considered as rare on the Swedish West coast are here recorded in rather large quantities. Information on the habitats of these species.

**Hiro F.** - Description of Three New Species of *Cirripedia* from Japan [*Descriptio trium novarum specierum ex Cirripediis Japonicis*]. 3 figs., Bull. Biogeogr. Soc. Jap., VI, 23, 221-230. (Contr. Seto Mar. Biol. Labor. Nº 51). Tokyo (1936). **b - 991**

*Heteralepas* (*Paralepas*) *globosa* sp. n., *Octolasmis clavula* sp. n., *Chthamalus Pilsbryi* sp. n.

**Hiro F.** - Report on the *Cirripedia* Collected in the Malayan Waters by the Ship « Zuihô-Maru » [*De Cirripediis collectis in aquis regionis Malesiae a navi* « Zuihô –Maru »]. 9 figs., 2 tables, Jap. Journ. Zool., VI, 4, 621-636. Tokyo (1936). **b - 992**

Description of a small collection of eleven species of cirripeds brought to the author by the « Zuihô-Maru » the surveying ship of the South Islands Bureau, from the Malayan waters (mainly from the Banda Sea). Of the described species the following two are new to science: *Balanus cuneiformis* n. sp., and *Acasta zuiho* n. sp.

**Hugh F. R.** - A Contribution toward the Life Histories of Two California Shrimps, *Crango franciscorum* (Stimpson) and *Crango nigricauda* (Stimpson) [*Contributio in studendum cyclum vitae specierum Californiensium « Crango franciscorum » et « C. nigricauda »*]. 9 figs., 12 tabl., 28 pp., Div. Fish and Game California, Bur. Comm., Fish., Fish. Bull., 46. Sacramento (1936). **b - 993**

History of the Fishery from 1869 until now: types of fishing gear used, chiefly the Chinese shrimps net, localities fished and the species of shrimps caught: *C. franciscorum*, *C. nigricauda* and *C. nigromaculata*. General features of the life histories and data of these shrimps: breeding season, young shrimp and various percentages of length frequencies, number of young samples etc. Composition of the commercial catch.

**Huzinaga M.** - Studies on the Development of *Penaeus japonicus* Bate. I. Report [*Studia de accretione speciei « P. Japonicus ». Relatio prior*]. (In Jap.; Engl. Summ.). 16 pls., Rep. Hayatomo Fish. Inst., I, 1, 1-51. Hayatomo (?) (1935). **b - 994**

Results of a study on fertilized eggs of *P. Japonicus* Bate spawned by copulated female during the period immediately following the spawning until the mysis stage. In spite of the abundance of the eggs, only a small number of mysis was obtained. The description of all the stages is very minute and well illustrated by 147 figures.

**Ii Naoyosi** - Studies on Japanese *Mysidacea*. I. Descriptions of New and Some Already Known Species Belonging to the Genera, *Neomysis*, *Acanthomysis* and *Proneomysis* [*Studia de Mysidaceis Japonicis. I. Descriptio specierum novarum specierumque notarum ad genera « Neomysis », « Acanthomysis » et « Proneomysis » pertinentium*]. Jap. Journ. Zool., VI, 4, 577-619. Tokyo (1936). **b - 995**

This description contains many new facts with respect to taxonomy, distribution, and habits of *Mysidacea*. This I part deals with ten species, of which two belong to the genus *Neomysis*, four to *Acanthomysis*, and four to *Proneomysis*. Of these species the following seven are new to science: *Neomysis nakazawai* n. sp., *Acanthomysis longirostris* n. sp., *A. dimorpha* n. sp., *Proneomysis fusca* n. sp., *P. eriopedes* n. sp., *P. misakiensis* n. sp., and *P. perminuta* n. sp.

**Ii Naoyosi** - Studies on Japanese *Mysidacea*. II. Descriptions of three new Species belonging to two new Genera, *Parastilomysis* and *Paracanthomysis* [*Studia de Mysidaceis Japonicis. II. Descriptio trium novarum specierum ad genera duo nova « Parastilomysis » et « Paracanthomysis » pertinentium*]. 41 figs., Jap. Journ. Zool., VII, I, 5-15. Tokyo (1936). **b - 996**

*Parastilomysis paradoxa* n. sp., *Paracanthomysis hispida* n. sp. and *P. kurilensis* n. sp. Remarks and localities.

**Jakubisiak S.** - Matériaux à la faune des Harpacticoïdes de Roscoff (côtes bretonnes, France) [*Res collectae ad studendam faunam ad* Roscoff *pertinentem. « Harpacticoidea »*]. (En franç., rés. polon.). Fragm. faun. Mus. zool. Polon., II, 28, 315-321. Warszawa (1936). **b - 997**

Liste de 62 espèces, réparties en 29 genres, dont plusieurs n'ont pas été signalées dans l'étude de Monard.

**Jensen A. S.** - Den Kinesiske Uldhaandskrabbe (*Eriocheir sinensis* M.–Edw.) i Danmark [*De specie « Eriocheir sinensis » in Dania*]. (Dtsch. Rés.). 3 Taf., Kgl. Dansk. Vidensk. Selsk. Biol. Medd., XIII, 3, 1-23. København (1936). **b - 998**

Nach einigen einleitenden Bemerkungen über das Eindringen dieser Art in Europa gibt Vf. einen Bericht über ihr Vorkommen in dänischen Gewässern seit 1927.

**John D. D.** - The Southern Species of the Genus *Euphausia* [*Species meridionales ad genus « Euphausia » pertinentes*]. Discovery Report, XI, 193-324. Univ. Press. Cambridge (1936). **b - 999**

**Johnson M. W.** - *Pachyptilus pacificus* and *Centraugaptilus porcellus*, two new Copepods from the North Pacific [« *Pachyptilus pacificus* » *et*

*« Centraugaptilus porcellus ». Copepodi duo novi ab Oceano Pacifico septentr. provenientes*]. 3 figs., Bull. Scripps Inst. Oceanogr., Univ. California, IV, 2, 65–70. Berkeley (1936). **b - 1000**

Description and remarks.

**Karlovac O.** - *Parapenaeus longirostris* (H. Lucas) an der Ostküste der Adria [*Parapenaeus longirostris » in litoribus orientalibus Maris Hadriatici*]. 1 Abb., Zool. Anz., CXV, 1/2, 60-62. Leipzig (1936). **b - 1001**

Durch den Fund von *Parapenaeus longirostris* am 10. Juni 1935 im Bracki – Kanal ist das Vorkommen dieser Art an der Ostküste der Adria festgestellt worden.

**Kobjakova Z.** - Uebersicht der Dekapoden-Gattung *Pandalopsis* Bate [*Genus « Pandalopsis » Conspectus*]. 4 Abb., Zool. Anz., CXVI, 7/8, 185-194. Leipzig (1936). **b - 1002**

Der z. Z. 7 Arten enthaltenden *Pandalopsis*– Gattung werden hier 4 neue Arten hinzugefügt: *P. multidentatus, P. ochotensis, P. punctatus* und *P. aleutica glabra* subsp. n. Bestimmungstabelle der *Pandalopsis*– Arten.

**Kossiackina E. G.** - On the *Copepoda Harpacticoida* of the Novorossiysk Bay [*Copepoda Harpacticoida in Baja* Novorossiysk]. (In Russ., Engl. Rés.). Works Arnoldi Biol. Stat., II, I, 113-114. Novorossiysk (1936). **b - 1003**

List of 27 species found during the years 1932-1936.

**Kubo I.** - A New Decapod Crustacean from Japan, *Paramaja Kominatoensis* gen. et sp. nov. [*« Paramaja Kominatoensis » crustaceus decapodus novus Japonicus*]. 2 figs., Bull. Jap. Soc. Scient. Fish., IV, 6, 361-364. (Contr. Zool. Lab., Imp. Fish. N. 43). Tokyo (1936). **b - 1004**

Description based on a male specimen obtained from Kominato at a depth of about 200 fathoms. Dimensions of carapace, merus, carpus, propodus, dactylus and branchial formula.

**Kubo I.** - A Description of a new Alpheoid Shrimp from Japan [*Descriptio novi Alpheidei Japonici*]. 1 pl., Journ. Imp. Fish. Inst., XXXI, 2, 43–54. Tokyo (1936). **b - 1005**

*Athanas japonicus* sp. nov.

**Kubo I.** - On Japanese Penaeid Crustaceans belonging to the Genus *Parapenaeopsis*, with a Description of one New Species [*De Crustaceis Penaeideis Japonicis ad genus « Parapenaeopsis » pertinentibus. Descriptio novae speciei*]. 1 fig., 2 tabl., Journ. Imp. Fish. Inst., XXXI, 2, 55-61. Tokyo (1936). **b - 1006**

Description of *Parapenaeopsis brevirostris* sp. n. and statistical observations on *P. tenella*, both from the Inland Sea of Japan. Key to Japanese species of this genus.

**Lang K.** - Harpacticiden aus dem Mittelmeer [*Harpacticidae maris Mediterranei*]. Fysiogr. Sällsk. Lund Förh. 1935, V, 87-98. Lund (1936). **b - 1007**

Beschreibung von neun Arten, von denen eine, *Dactylopusia mediterranea*, neu ist.

**Lang K.** - Die während der schwedischen Expedition nach Spitzbergen 1898 und nach Grönland 1899 eingesammelten Harpacticiden [*Harpacticidae collectae inter expeditionem Suetiam ad* Spitzberg *A. 1898 et ad Groenlandiam A. 1899*]. 117 Abb., Kungl. Sv. Vetensk. Handl., XV, Ser. 3, 4, 1-55. Stockholm (1936). **b - 1008**

Beschreibung mit Angabe von Fundort und Verbreitung von etwa 50 Arten, in denen zwei neue Genera, 15 neue Spezies und zwei neue Variationen enthalten sind. Die meisten der neuen Arten stammen aus grösseren Tiefen wie 1750 und 2700 m.

**Lang K.** - Beiträge zur Kenntnis der Harpacticiden. 3. Die Gattung *Pseudomesochra* T. Scott nebst Beschreibung einer neuen Art dieser Gattung [*Investigationes circa Harpacticidae. 3. Genus « Pseudomesochra » cum descriptione novae speciei ad hoc genus pertinentis*]. 8 Abb., Zool. Anz., CXIII, 7/8, 174-177. Leipzig (1936). **b - 1009**

*Pseudomesochra* gehört weder den *Canthocamptide*, noch den *Cletodidae* oder *Tachidiidae* an, sondern sie ist eine *Diosaccidae* und steht der Gattung *Stenhelia* Boeck am nächsten. Bestimmungstabelle der *Pseudomesochra*. Weibchen. *P. similis* n. sp.

**Lang K.** - Beiträge zur Kenntnis der Harpacticiden. 7. Die Familie *Anchorabolidae* Sars, nebst Beschreibung einer neuen *Laophontodes*–Art [*Contributiones in Harpacticidas cognoscendas. 7. Familia « Anchorabolidae », cum descriptione novae speciei « Laophontodes »*]. 5 Abb., Zool. Anz., CXV, 5/6, 152-156. Leipzig (1936). **b - 1010**

Diagnose der Familie *Anchorabolidae*, Bestimmungstabelle der Gattungen, Bemerkungen über die Gattung *Laophontodes* T. Scott mit Bestimmungstabelle. *Laophontodes gracilipes* n. sp. Fundort.

**Lebour M. V.** - Notes on the Plymouth Species of *Spirontocaris* (*Crustacea*) [*Notae de specie « Spirontocaris » (Crustacea) ad* Plymouth *pertinenti*]. 7 pls., Proc. Zool. Soc., 1, 89-104. London (1936). **b - 1011**

Two forms of *Spirontocaris* have been distinguished of the genus occurring at Plymouth: *S. cranchii*, and *S. occulta*, which though seen before was considered as a new form. Description of larvae and adults, comparison with the larval forms of *Hippolyte*.

**Lochhead J. H.** - Body Orientation of the Lower *Crustacea* (*Branchiopoda*) [*Corporis orientatio in Crustaceis inferioribus*]. Nature, CXXXVIII, 3484, 232-233. London (1936). **b - 1012**

Referring to works of Lowndes, Wertheim, Müller, Seifert, Wagler and Mathias A. discusses four principal controlling factors for orientation among the *Anostraca* and *Notóstraca*, namely the aeration of the water, gravity, the surface resistance of the animal, and light.

**Lowe E.** - On the Anatomy of a Marine Copepod, *Calanus finmarchicus* (Gunnerus) [*De anatomia alicuius Copepodi marini « Calanus finmarchicus »*]. Trans. R. Soc. Edinburgh, LVIII, 3, 561-603. Edinburgh (1936). **b - 1013**

External form. Endoskeleton. Main longitudinal muscles of the thorax. Alimentary canal. Hydrostatic organ. Excretory system. Circulatory system. Nervous system. Genital system. Bibl.

**Lunz G. R. Jr.** - The Stomatopods (mantis shrimps) of the Carolinas [*Stomatopoda ad regionem* Carolinas *pertinentia*]. 6 figs., Journ. Elisha Mitchell Sc. Soc., LI, 151-159. Chapel Hill N. C. (1935) **b - 1014**

List with keys and descriptions of the Stomatopod *Crustacea* of North and South Carolina: *Lysiosquilla excavatrix, L. scabricauda* and other spp.

**Makarov W. W.** - Beschreibung neuer Dekapoden- Formen aus den Meeren des Fernen Ostens [*Decapoda. Descriptio novarum formarum a maribus orientalibus provenientium*] 4 Abb., Zool. Anz., CIX, 11/12, 319-324. Leipzig (1935). **b - 1015**

*Hetairus zebra* n. sp., Berings Meer und Awatscha Bucht; *Pandalus borealis*, v. *eous* n. var. Berings Meer; *Callianassa gigas* v. *japonica* n. var., Japanisches Meer.

**Meyer P. F.** - Die Nordseekrabbe (Granat, Garnele) *Crangon vulgaris* Fabr. im Jadebusen [« *Crangon vulgaris* » *in Sinu* Jade]. 14 Abb., 14 Tab., Ztschr. f. Fisch., XXXIV, 3, 319-358. Neudamm & Berlin (1936). **b - 1016**

Geographische und hydrographische Verhältnisse, die Granatfischerei im Jadebusen. Untersuchungsmaterial. Ergebnisse: Bestandsuntersuchungen, Wachstum und Alter, der Einfluss hydrographischer Faktoren auf den Granatbestand. Vorschläge zum Ausbau der Granatfischerei im Jadebusen.

**Monard A.** - Les Harpacticoïdes marins de la Région de Salammbô [*Harpacticidae marinae regionis* Salammbô]. 145 fig., Bull. Stat. Océanogr. Salammbô, 34, 3-95. Tunis (1935). **b - 1017**

Les recherches de l'A. sont les premières qui ont été faites systématiquement sur la côte africaine de la Méditerranée. Abondance caractéristique de *Enhydrosoma propinquum* dans la boue du fond de El Bahira.

Complément ou rectification de certains points de systématique et description d'un nouveau genre et de treize nouvelles espèces. Liste des principales Stations méditerranéennes où les Harpacticoïdes ont été étudiés; leur distribution et habitat.

**Orton J. H.** - Experiments in the Sea on Rate of Growth of some Crustacea Decapoda [*Experientiae de velocitate accretionis in mari aliquorum Crustaceorum Decapodorum*]. 2 figs., Journ. Mar. Biol. Ass., XV, 3, 673-689. Plymouth (1936). **b - 1018**

Experiments with *Carcinus maenas*, *C. pagurus*, *Portunus puber*, *P. arcuatus*, and some others. Results expressed in table concerning maximum time required for growth.

**Ottestad P.** - On Antarctic Copepods from the « Norvegia » Expedition [*De Copepodis antarcticis inter expeditionem navis* « Norvegia » *collectis*]. Scient. Res. Norw. Antarctic Exped., 15, Oslo (1936). **b - 1019**

Biology: spawning periods, places, and distribution of *Calanus acutus*, *C. propinquus*, *Rhincalanus gigas*, and *Metridia gerlachei*. New information on the spawning of *Rhincalanus gigas*.

**Paulian R.** - L'existence d'un stade critique dans la croissance relative de l'*Eupagurus Prideauxii* (Crustacé Anomure) [*De exsistentia stadii cuiusdam critici in accretione relativa speciei* « *Eupagurus Prideauxii* » (*Crustacea Anomura*)]. C. R. Soc. Biol., CXXI, 435-437. Paris (1936). **b - 1020**

Jusqu'à une longueur d'aire gastrique de 11,5 mm. la croissance relative des pinces de l'*Eupagurus Prideauxi* suit la loi de dysharmonie simple; aux tailles supérieures les choses se compliquent selon l'appendice droite ou gauche considéré. La mue critique se place à une longueur de 12-13 millimètres.

**Pesta O.** - Marine Harpacticiden aus dem Hawaiischen Inselgebiet II. Beitrag [*Harpacticidae marinae ad archipelagus hawaiianum pertinentes. Contributio secunda*]. 8 Abb., Zool. Jahrb. Abt. Syst. Ökol, u. Geogr. Tiere, LXVI, 5, 363-379. Jena (1935). **b - 1021**

Vergleichende Untersuchung von 22 Arten von *Peltidium*. – *P. hawaiiense*, *P. Monardi*, *P. scotti* und *P. clavigerum* sind neu.

**Pesta O.** - Krebstiere oder *Crustacea*. Ruderfüsser oder *Copepoda* (*Monstrilloida*; *Notodelphyoida*; *Caligoida*; *Lernaeoida*) [*Crustacea–Copepoda*]. Die Tierwelt Deutschl. u. d. angrenz. Meeresteile nach ihren Merkmalen u. nach ihrer Lebensweise. Teil 29, Nr. 1; 4; 5; 6; 7. Gustav Fischer. Jena (1936). **b - 1022**

Dieser Teil bezieht sich auf die parasitischen und halb-parasitischen Formen von *Copepoda*.

**Poulsen E. M.** - De danske Farvandes Rurer (*Balanomorpha* og *Verrucomorpha* [« *Balanomorpha* » *et* « *Verrucomorpha* » *in aquis Danicis*]. (Dtsch. Rés). 10Abb., 3Taf., Vidensk. Medd., XCIX, 5-27. København (1935-36). **b - 1023**

Beschreibung von *Verruca stroemia* und fünf *Balanus*-Arten. Ihre Verbreitung im Verhältnis zur Tiefe und zum Salzgehalt.

**Rammner W.** - *Artemia salina* auf Bonaire, Curaçao und St-Martin [« *Artemia salina* » *in* Bonaire, Curaçao *et* St. Martin]. 5 Abb., Zool. Jahrb. Abt Syst. Ökol. u. Geogr. Tiere, LXVII, 353–362. Jena (1936). **b - 1024**

Die hier auf diesen drei Inseln gefundene Art war früher nur von S. Domingo und Hawaii-Inseln bekannt. Drei verschiedene Formen, ohne Beziehung mit dem Salzgehalt, sind unterschieden worden. Vorherrschung männlicher Individuen.

**Retowski L.** - Zur Kenntnis der Decapodenfauna der Asiatischen Arktis [*Studia ad faunam cognoscendam Decapodorum ad Arctidem Asiaticam pertinentium*]. Trans. Arct. Inst., XXXIII, 7-29. Leningrad (1936). **b - 1025**

An Hand eines umfangreichen Materials aus den Sammlungen von drei arktischen Expeditionen, bzw. der « Lomonosow–Expedition » im nördlichen Teil der Kara-See (1931), der « Sibirjakow-Expedition » längs der asiatischen Küste von Severnaja Zemlja und von Nowaja Zemlja bis zur Beringsstrasse (1932) und der « Russanow–Expedition » in das Gebiet von Severnaja Zemlja (1932) ist die Beschreibung von neuen verschiedenen Decapodenarten gegeben, nebst Data über Bodenbeschaffenheit, hydrologische Verhältnisse, Altersbestand und Geschlecht der Formen, sowie einzelne Charakteristika derselben.

**Schäfer H. W.** - Cyclopiniden (*Crustacea Copepoda*) aus der deutschen Nordsee [« *Cyclopinida* » *maris Nordici Germanici*]. 20 Abb., Zool. Anz., CXIV, 225-234. Leipzig (1936). **b - 1026**

*Cyclopina latipes* n. sp., *C. Kieferi* n. sp., *C. brachystylis* G. O., Sars, *C. gracilis* Claus, *C. elegans* Scott, *C. littoralis* (Brady). Schlüssel. Klassifikation.

**Schellenberg A.** - Zwei neue Amphipoden des Stillen Ozeans und zwei Berichtigungen [*Amphipoda duo nova Oceani Pacifici. Duae correctiones*]. 1 Abb., Zool. Anz., CXVI, 5/6, 153-159. Leipzig (1936). **b - 1027**

*Aristias pacificus* sp. n. und *Elasmopus ecuadorensis* n. sp. Fundort, Beschreibung und Vergleich mit verwandten Arten. *Grandidierella africana* sp. n., früher unter *G. gravipes* eingeordnet, muss als besondere Art gelten, so auch *Orchestia malayensis* var. *thienemanni* Schellbg.

**Schubert K.** - In 25 Jahren der dritte Krebs nach Deutschland eingewandert [*Tertia cancrorum species in Germania reperitur abhinc 25 annos*]. Fischmarkt, IV, 11, 304-305. Cuxhaven (1936). **b - 1028**

Kurzer Bericht über ein massenhaftes Vorkommen von kleinen Krabben in der Nähe von Kiel, *Pilumnopeus tridentatus* Maitland. Die Verbreitung dieser Art.

**Sexton E. W. & Clark A. R.** - A Summary of the Work on the Amphipod *Gammarus chevreuxi* Sexton carried out at the Plymouth Laboratory (1912–1936) [*Compendium de operibus peractis circa amphipodum « Gammarus chevreuxi » in laboratorio* Plymouth]. Journ. Mar. Biol. Ass., n. ser XXI, 1, 357-414. Plymouth (1936). **b - 1029**

Conditions of *Gammarus chevreuxi* in the wild. Description: moulting and development, the question of telegony. Mutant characters as they appeared in the laboratory cultures. The experiments are described and partially expressed in tables.

**Shen Chia-Jui** - Notes on the Family *Hapalocarcinidae* (Coral-Infesting Crabs) with Descriptions of two New Species [*Hapalocarcinidae (cancri corallia infestantes). Descriptio duarum novarum specierum*]. Kong Kong Natural. (Suppl.) 5, Part 5. Hong Kong (1936). **b - 1030**

Only two valid genera are recognized in the *Hapalocarcinidae* Stimpson, namely *Hapalocarcinus* and *Cryptochirus*. The two new spp are: *Chriptochirus hongkongensis* and *C. granulatus*.

**Smirnov S.** - Zur Systematik der Copepoden-Familie *Cyclopinidae* G. O. Sars [*Copepodorum familia « Cyclopinidae ». Quaestio de systematica*]. 11 Abb., Zool. Anz., CIX, 7/8, 203-210. Leipzig (1935). **b - 1031**

*Paracyclopina; P. nana* n. sp. Beschreibung von *Cyclopina barentsiana, C. brachystylis* und *C. pacifica* ♀ n. sp.

**Smirnov S.** - Ueber die angebliche *Oothrix bidentata* Farran aus dem Weissen Meer [*De opinata specie « Oothrix bidentata » Maris Albi*]. 4 Abb., Zool. Anz., CIX, 9/10, 259-263. Leipzig (1935). **b - 1032**

*Copepoda Neoscolecithrix farrani* n. sp. U. S. S. R.

**Stead D. G.** - Edible Crustaceans of Sydney Harbour [*Crustacea edulia in portu* Sydney]. 4 fig., Austral. Natur., 9, 103-110. Sydney (1935). **b - 1033**

The most common species are: *Jasus verreauxi, J. lalandii*, three species of *Penaeus, Scylla serrata, Neptunus pelagicus, N. sanguinolentus* and *Charybdis cruciata*.

**Stephensen K.** - *Copepoda* found on *Limnoria lignorum* [*Copepoda in specie « Limnoria lignorum » inventa*]. 4 figs., 10 pp., Kgl. Norsk. Vidensk. Selsk. Skr. 1935, II, 39. Trondheim (1936). **b - 1034**

Determination of 8 species of *Copepoda Harpacticoida* collected by Dr Dons near Trondheim in 1930 and 1931. One new genus and species: *Donsiella limnoriae*.

**Steuer A.** - *Cumacea* und *Stomatopoda* von Alexandrien in Ägypten [« *Cumacea* » *et* « *Stomatopoda* » *Alexandriae, in Aegypto*]. 16 Abb., Not. Ist. Biol. Rovigno, 21, 3-19. Jena (1936). **b - 1035**

Von den drei erbeuteten Cumaceenarten wurden *Iphinoe tenella, Eochuma Sarsii* und *Bodotria scorpioides* forma *mediterranea* nur in der Anfouchi-Bay gefunden, während für die Nordadria die Variation f. *septentrionalis* festgestellt werden konnte.

Von Stomatopoden wurden *Squilla mantis* (L.) und ein jugendliches Männchen von *Squilla africana* Calman gefischt, bisher nur von der westafrikanischen Küste bekannt (Nach Vf.).

**Takasiba A.** - Biological Study of the Crab, *Neptunus trituberculatus* Miers, with Some Notes on the Relation of the Meat Amount and Lunar Phase [*Studium biologicum cancri « Neptunus trituberculatus », cum notis de correlatione inter carnis accretionem et lunae phases*]. (In Jap.). Journ. Imp. Fish. Exp. Stat., VI, 2, 86-96. Tokyo (1934). **b - 1036**

Results of observation on mating, spawning and moulting. Statistic study of the amount of meat in relation to the lunar phase made on 816 individuals obtained in full and new moon periods from April to December proving that there is no intimate and definite relation between the lunar phase and meat amount as supposed.

**Tanaka O.** - Copepods of Sagami Bay. I. Fam. *Eucalanidae* [*De Copepodis in Baja* Sagami. *I. Familia « Eucalanidae »*]. (In Jap.). 2 figs., 1 pl., Journ. Imp. Fish. Exp. Stat., VI, 4, 142-165. Tokyo (1935). **b - 1037**

Revision and description of copepods of the family *Eucalanidae* living in the Sagami Bay. The 12 species described are all known to science. On hand of observations of the immature forms, author shows that several species, which have been considered independent, are certain development stages of species previously known.

**Tanaka O.** - Copepods of Sagami Bay. II. Fam. *Candacidae* [*De Copepodis in Baja* Sagami. *II. Familia « Candacidae »*]. (In Jap.). 6 pls., Journ. Imp. Fish. Exp. Stat., VI, 4, 210-227. Tokyo (1935). **b - 1038**

Description and revision of 8 species of the family *Candacidae* containing the genus *Candacia* found in the Sagami Bay.

**Tanaka O.** - On some New Species of *Copepoda* from Sagami Bay [*Copepoda nova in Baja* Sagami]. 5 pls. o. t., Jap. Journ. Zool., Trans. & Abstr., VII, 1, 31-36. Tokyo (1936). **b - 1039**

*Labidocera bipinnata* n. sp., *Pontella barbata* n. sp., *P. forcipata* n. sp., *P. bifurcata* n. sp.

**Tarasov N. I.** - Ueber eine wenig bekannte und seltene Form der Gattung *Lepas* (*Cirripedia thoracica*) [*De forma rara et parum cognita generis « Lepas »*]. 5 Abb., « Zool. Anz., CX, 11/12, 326-330. Leipzig (1935). **b - 1040**

*Lepas nonfurcata* (*L. anatifera* var. n. Nilss.-Cant., *L. darwinii* Dkr. ms.) aus dem Atlantischen und Stillen Ozean.

**Tarasov N. I.** - On the Arctic Fauna of *Cirripedia thoracica*. II. [*De fauna arctica speciei « Cirripedia thoracica» II*]. (In Russ. Engl. Summ.) Trans. Arct. Inst., XXXIII, 45-49. Leningrad (1936). **b - 1041**

Diagnosis: description and ecology of the five following species of *Cirripedia* gathered by the expeditions of the ice-breakers « Russanov » and « Sibirjakov », in 1932 and the schooner « Lomonosov » in 1931 in various parts of the Arctic Sea: *Scalpellum nymphocola* Hoek, *Sc. cornutum* G. O. Sars, *Sc. striolatum* G. O. Sars, *Balanus balanus* (L.), and *B. crenatus* Bruguière. From these species only one, *Sc. striolatum*, is new for the Arctic section of the U. S. S. R.

**Templeman W.** - Local Differences in the Life History of the Lobster (*Homarus americanus*) [*Differentiae a loco ad locum quoad cyclum vitae speciei « Homarus americanus »*]. 13 tabl., 12 figs., Journ. Biol. Board Canada, II, 1, 41-88. Toronto (1936). **b - 1042**

This study is based on examination of the commercial catches of fishermen in more than one hundred and seventy localities on the coast of the maritime provinces of Canada during the summers of 1930, 1931 and 1932. Information is given here as to the great differences between local populations and their relation to environmental conditions.

**Ward M.** - *Crustacea Brachyura* from the Coasts of Queensland [*Crustacea Brachyura ad litora regionis* Queensland *pertinentia*]. 3 pls., Mem. Queensl. Mus., XI, 1, 1-13. Brisbane (1936). **b - 1043**

Description of several genera and species, of which the following forms are new to science: *Cryptolutea lindemanensis* sp. n., *Pronotonyx* nom. n., *P. laevis* Miers, *Pseudocryptocoeloma* g. n., *P. parvus* sp. n., *Chlorodopsis miersi* nom n., *Etisodes australis* sp. n., *Leptodius australis* sp. n., *Banareiopsis* g. n., *B. australis* sp. n., *Sargassocarcinus* g. n., *S. foliatus* sp. n., *Harrovia plana* sp. n., *Calappa terrae-reginae* sp. n.

**Wilson C. B.** - Copepods from the Far North collected by Captain R. A. Bartlett [*Copepoda ad regiones arcticas pertinentia collecta a* R. A. Bartlett]. Journ. Washington Acad. Sc., XXVI, 9, 365-376. Menasha, Wis. (1936). **b - 1044**

**Wiman C.** - Gibt es Riffe von Seepocken (Balanen)? [*Sunt scopuli a specie « Balanus » formati?*]. 2 Abb., Natur u. Volk., LXVI, 1, 26-28. Frankfurt a. M. (1936). **b - 1045**

Beschreibung eines im Jahre 1891 aus Sumatra in das geologische Institut von Upsala gebrachten Stückes, das wahrscheinlich aus *Balanus laevis* var. *coquimbensis* Sowerby besteht, die an einem Felsufer ein waagrechtes Brett ins Wasser hinaus gebaut haben. Diese Bildung ist aus besonderem Interesse, weil sie eine nicht gewöhnliche Wuchsform der Balanen darstellt.

**Yokoya Y.** - On the Prawns Belonging to the Genus *Pandalus* [*De cancris ad genus « Pandalus » pertinentibus*]. (In Jap.). Journ. Imp. Fish. Exp. Stat., VI, 1, 13-17. Tokyo (1934). **b - 1046**

Brief description of prawns belonging to the genus *Pandalus* living in Japanese waters. They are: *P. borealis* Kröyer, *P. hispinotus* Brandt, *P. latirostris* Rathbun, and *P. nipponensis* Yokoya. Author illustrates their distribution and economic importance for the fisheries.

**Yokoya Y.** - On the Immature Forms of Crustacean Decapods Found in the Vicinity of Misaki Marine Biological Station in the Winter Season [*De immaturis formis Crustaceorum Decapodorum quae repertae sunt apud Stationem pro biologia marina in* Misaki, *hiemali tempore*]. (In Jap.). 1 pl., Journ. Imp. Fish. Exp. Stat,, VI, 4, 228-239. Tokyo (1935). **b - 1047**

Description of zoea and mysis of some *Penaeidea*, of immature forms of certain *Palaemonidae*, *Pandalidae*, and *Amphion*, and some larval and immature stages of *Thalassinidea*, *Galatheidea*, und *Dromiacea*.

**Yokoya Y.** - Some Rare and New Species of Decapod Crustaceans found in the Vicinity of the Misaki Marine Biological Station [*Crustacea Decapoda. Species rarae et novae repertae apud Stationem pro biologia marina in* Misaki]. 10 figs., Jap. Journ. Zool., Trans. & Abstr., VII, 1, 129-146. Tokyo (1936). **b - 1048**

Description of nine species, seven of which are new, belonging to the families *Alpheidae*, *Palaemonidae*, *Galatheidae*, *Leucosiidae*, *Parthenopidae* and *Goneplacidae*.

**Zariquiey y Cenarro R.** - Adiciones al Ensayo de un catálogo de los Crustáceos Decapodos marinos de España y Marruecos Español de D. Alvaro de Miranda y Rivera, publicado en 20 de Septiembre de 1933 [*Crustacea Decapoda marina ad Hispaniam et Mauretaniam Hispanicam pertinentia. Addenda ad catalogum editum ab* Alvaro de Miranda y Rivera *die 20 mensis Septembris A. 1933*]. Bull. Inst. Catal. Hist. Natur., 35, 1-7. Barcelona (1935). **b - 1049**

**Zimmer C.** - The Fishery Grounds near Alexandria. *Schizopoda* [*Fundi piscatorii Alexandriae. Schizopoda*]. Fish. Res. Directorate, Min. Comm. & Ind., VII, Not. & Mem. 15, 46. Cairo (1936). **b - 1050**

*Mesopodopsis slabberi* and *Diamysis bahirensis*, euryhalin forms, met with in the Mediterranean and the Black Sea.

**Zimmer C.** - California *Crustacea* of the Order *Cumacea* [*Crustacea Californiensia ad ordinem « Cumacea » pertinentia*]. 39 figs., Proc. U. S. Nat. Mus., LXXXIII, 2992, 423-439. Washington (1936). **b - 1051**

Until now only three species have been known from the coast of California. Seven new species are reported here, all collected in the vicinity of Newport about lat. 33°38' N

## Tunicata.

**Ärnbäck Christie-Linde A.** - A notable Case of Relation in *Perophora* [*De affinitate notanda in Perophoris*]. 3 figs., Ark. f. Zool., XXVIII B, H. 3, 9, 1-6. Stockholm (1936). **b - 1052**

A. has examined a collection of numerous colonies of a species of *Perophora* labelled *Perophora japonica* from the Misaki Biological Station, and come to the conclusion that the species are not identical with *P. japonica* but represent a new species, *Perophora orientalis*, of which a description is given. Revision of *Perophora* species.

**Berrill N. J.** - VIII. Studies in Tunicate Development. Part III. Differential Retardation and Acceleration [*VIII. Tunicata. Studia de accretione. Pars III. Retardatio differentialis et acceleratio*]. 7 tabl., 31 figs., Phil. Trans. R. Soc., CCXXV, B 525, 255-326 (Contr. Bermuda Biol. Stat. No. 29. St. George's West, Bermuda). London (1935). **b - 1053**

These studies are based on investigations into the development of forty-six species representing thirty-five genera. List of species investigated. Origin af viviparity and yolk accumulation. Cell-size, body-size and egg-size. Ascidian development. Egg-size and rate of development. Gastrulation. Analysis of embryonic development. Development of larval and permanent structures. Differentiation of the trunk. Post-larval development. Development of the stigmata. Increase in relative amount and density of yolk. Reduction in egg-size.

**Das S. M.** - *Herdmania*: A Monascidian of the Indian Seas [*Herdmania. Monascidia in maribus Indianis*]. Ind. Zool. Mem. on Ind. Animal Types, 5. Lucknow Publ. House. Lucknow (1936). **b - 1054**

Distribution and description of *Herdmania pallida* and *H. ceylonica*.

**Florkin M.** - Sur un caractère, souvent mal interprété, du milieu intérieur des Ascidies [*De quodam charactere quoad medium internum Ascidiarum qui saepe male interpretatur*]. C. R. Soc. Biol., CXVII, 1226. Paris (1934). **b - 1055**

L'A. met en évidence les causes d'erreur dans l'interprétation que les Ascidies, au lieu d'excréter, absorbent du $CO_2$.

**Garstang W. & Georgeson E.** - Report on the *Tunicata*. 2. *Copelata* [*Relatio de Tunicatis*]. 5 figs., Brit. Mus. (Natur. Hist.), Brit. Antarctic (Terra Nova) Exped. 1910, Natur. Hist. Rep., IV, 8, 263-282. London (1935). **b - 1056**

These species are all Oikopleurids, most of them *O. longicauda* from the warm waters of the Atlantic and South Pacific, and *O. valdiviae* from the Antarctic waters. *Folia gigas* n. sp. Antarctic Ocean; *Stegosoma conogaster* n. sp. Pacific Ocean.

**Grave C.** - Metamorphosis of Ascidian Larvæ [*Metamorphosis larvarum Ascidiarum*]. 2 pls. o. t., 1 fig., 26 tabl., Pap. Tortugas Labor., XXIX, 211-291. Washington (1936). **b - 1057**

Activity and behaviour. The Ascidian Larva a dual organism. The disruptive phase of Metamorphosis. Variability of Larvae. Acceleration by light and by mechanical stimuli. Susceptibility, activity and the mechanism of metamorphosis. Acceleration by chemical substances.

Differentiation and swimming-water. Experiments with different chemical substances and with extracts.

**Huus J.** - Ascidiologische Notizen. II. Ueber den Fund von *Styela atlantica* (Van Name) an der norwegischen Westküste, mit Bemerkungen über die amphiatlantische Verbreitung einiger Ascidien [*Notitiae de Ascidiis. II. « Styela atlantica » in litoribus occid. Norvegiae reperitur. Observationes de distributione amphi-atlantica aliquarum Ascidiarum*]. 8 Abb., Berg. Mus. Årb., naturv. r., I, 5, 1-18. Bergen (1936). **b - 1058**

Material und Funddaten. Beschreibung und Vergleich mit anderen Formen. Verzeichnis der amphiatlantischen Verbreitung, Versuch dieser Ausbreitung zu erklären. (Vier Möglichkeiten sind angeführt).

**Ihle J. E. W. & Ihle-Landenberg M. E.** - *Cyclosalpa virgula* (Vogt) und *Cyclosalpa Komaii* n. sp. - 3 Abb., Pubbl. Staz. Zool. Napoli, XV, 2, 274-283. Napoli (1936). **b - 1059**

Unter Berücksichtigung der von Taku Komai in 1932 veröffentlichten Arbeit über japanische Salpen, in welcher eine Art als *Cyclosalpa virgula* beschrieben wird, haben die Vf. Vf. hier einen Vergleich zwischen der japanischen und neapolitanischen Form von *C. v.* gemacht und sind zu dem Ergebnis gekommen, dass die japanische Form zu einer neuen Art gerechnet werden dürfte, der der Name *Cyclosalpa Komaii* gegeben worden ist.

**Neumann G.** - Tunikaten (*Doliolidae*) [*Tunicata*]. 67 S., H. G. Bronn Klass. u. Ordn. Tierr. Suppl. III, Abt. 2, Buch 2, Lief. 2. Akad. Verlagsg. Leipzig (1935). **b - 1060**

**Oka A.** - Ueberblick über die japanische Ascidienfauna [*Conspectus faunae Japonicae Ascidiarum*]. Proc. Imp. Acad., XI, 5, 198-200. Tokyo (1935). **b - 1061**

Vf. gibt eine Tabelle der von Japan bekannten Ascidiengattungen mit ihrer Artenzahl, welche die von R. Hartmeyer in 1906 zusammengestellte Liste zahlenmässig weit übertrifft. Zum Schluss schildert er eingehender die artktischen und die eigentlich japanischen Ascidienformen.

**Oka A.** - Report of the Biological Survey of Mutsu Bay. 28. *Ascidiae simplices* [*Relatio de biologicis inquisitionibus in* Mutsu *Baja. 28. Ascidiae simplices*]. 35 figs., Sc. Rep. Tôhoku Imp. Univ., Ser. 4, Biol., X, 3, 427-466. Sendai (1935). **b - 1062**

This collection comprises 21 species among which ten species and one genus are new to science. List, descriptions and distribution.

**Vernière P.** - Les Appendiculaires de la mer de Villefranche: *Pegalopleura Haranti* n. sp. [*De Appendiculariis ad mare regionis* Villefranche *pertinentibus. « Pegalopleura Haranti » n. sp.*]. 2 fig., Bull. Soc. Zool. France, LIX, 160-163. Paris (1934). **b - 1063**

Les genres signalés pour la première fois sur les côtes de Villefranche sont: *Kowalevskaia, Fritillaria, Tectillaria, Stegosoma, Oikopleura* et *Pegalopleura*, en outre *Doliolum, Thalia* et *Salpa fusiformis*.

## Pisces et Cyclostomata.

**Aiyar R. G.** - Observations on the Development of *Acentrogobius neilli* (*Gobius neilli* Day) [*Observationes de progressu speciei « Acentrogobius neilli »*]. 22 figs., Zool. Anz., CXI, 3/4, 83-92. Leipzig (1935). **b - 1064**

Eggs, fertilization, embryo, young stages. This species lives in 25° C water in India.

**Allan P. B. M.** - Trout Heresy [*De erroribus in tructis cognoscendis*]. 206 pp., Philip Allan & Co. Ltd. London (1936). **b - 1065**

Art of catching fish; science of their lives; psychology of the fish and the fisherman.

**Andriashev A. P.** - Nouvelles données sur les poissons abyssaux de la Mer de Barents [*Data nova de Piscibus abyssalibus Maris* Barents]. (En russe). 1 fig., Dokl. Akad. Naouk (Rapp. Acad. Sc. URSS), IV, 1/2, 105-108. Moskva (1935). **b - 1066**

**Andriashev A. P.** - Uebersicht der Gattung *Stelgistrum* Jordan und Gilbert (*Pisces, Cottidae*) nebst Beschreibung einer neuen Art aus dem Beringmeer [*Conspectus generis « Stelgistrum », (Pisces Cottidae) et descriptio novae speciei a Mari* Bering *provenientis*]. 1 Abb., Zool. Anz., CXI, 11/12, 289-297. Leipzig (1935). **b - 1067**

*Stelgistrum* Jordan & Gilbert. (*Stelgistrops* Hubbs), Schlüssel zu drei Arten, Beschreibung. *Stelgistrum concinnum* n. sp.

**Athanassopoulos G.** - La *Muraena unicolor* dans la Méditerranée [*« M. unicolor » in Mari Mediterraneo*]. Bull. Inst. Océanogr., 691, 1-2. Monaco (1936). **b - 1068**

Brève description du Murénide qui représente une des plus rares espèces de poissons vivant dans la Méditerranée; l'A. met en garde contre la confusion de *M. unicolor* avec la seule autre espèce habitant la Méditerranée: *M. Helena*.

**Averintzev S.** - Au sujet de quelques données sur la biologie de *Gadus morrhua* [*De biologia speciei « Gadus morrhua »*]. (En russe). 2 fig., Za Rybn. Ind. Sev., 1, 5-8. Leningrad (1936). **b - 1069**

**Barnhart Spencer P.** - Marine Fishes of Southern California [*Pisces marini Californiae merid.*]. 292 figs., diagr., Univ. Calif. Press. Berkeley, Calif. (1936). **b - 1070**

Systematic descriptions of 372 fishes from southern California waters (Point Conception to the American-Mexican boundary). Keys, glossary, indexes, bibl.

**Battle H. I., Huntsman A. G., Jeffers A. M., Jeffers J. W., Johnson W. H., & McNairn N. A.** - Fatness, Digestion and Food of Passamaquoddy Young Herring [*Crassitudo, digestio, nutricatio juvenis aringi in baja* Passamaquoddy]. 6 figs., 12 tables, Journ. Biol. Bd. Canada, II, 4, 401-429. Toronto (1936). **b - 1071**

Using condition factor as criterion of fatness, investigation confirms the report of those handling them that herring are characteristically fat in each locality of the Passamaquoddy region of southern New Brunswick. In the present paper some facts procured during the season of 1933 in order to test this matter are communicated and the relationship between fatness of herring and richness of the relative planktonic food established (from A:s Abstr.).

**Beebe W.** - Deep-Sea Fishes of the Bermuda Oceanographic Expeditions. I. Family *Derichthyidae*. II. Family *Nessorhamphidae* [*Pisces in maris profunditatibus viventes ab expeditionibus oceanographicis ad* Bermuda *provenientes*]. 22 fig., Zoologica, XX, 1/2, 1-51. New York (1935). **b - 1072**

Systematic characters, ecological relations.

**Beebe W. & Crane J.** - Deep-Sea Fishes of the Bermuda Oceanographic Expeditions. III. Family *Serrivomeridae* [*Pisces in maris profunditatibus viventes ab expeditionibus oceanographicis ad* Bermuda *provenientes*]. 19 fig., Zoologica, XX, 3, 53-102. New York (1936). **b - 1073**

Genus *Serrivomer* with a taxonomic revision of the species. Description of *S. beanii*, adult stages, development and ecology. Differences from *S. sector* and *S. brevidentatus*. Table showing the relative dental characteristics of the species of *Serrivomer*. Geographical distribution.

**Beebe W. & Hollister G.** - The Fishes of Union Island, Grenadines, British West Indies, with the Description of a New Species of Star-Gazer [*Pisces qui pertinent ad regiones* Union Island, Grenadines *et Indias occidentales Britannicas. Descriptio novae speciei « Uranoscopus »*]. Zoologica, XIX, 6. New York (1935). **b - 1074**

This paper contains the only published list of fishes from the Union Island, one of the Grenadines.

**Beebe W. & Tee-Van J.** - Systematic Notes on Bermudian and West Indian Tunas of the Genera *Parathunnus* and *Neothunnus* [*Notae systematicae de speciebus a* Bermuda *et Indiis occidentalibus provenientibus ad genera « Parathunnus » et « Neothunnus » pertinentibus*]. 7 pls. o. t., Zoologica, XXI, 3, 12/18, 177-194. (Contr. Bermuda Biol. Stat., No. 44, St. George's West, Bermuda). New York (1936). **b - 1075**

*Parathunnus atlanticus* and *Neothunnus argentivittatus*: Synonymies; taxonomic notes, comparison of recent specimens and original descriptions, description of Bermuda and West Indian specimens; range.

**Bigelow H. B. & Schroeder W. C.** - Supplemental Notes on Fishes of the Gulf of Maine [*Notae additiciae de Piscibus in Sinu* Maine]. U. S. Dpt. Comm., Bur. Fish., XLVIII, 20, 319-343. (Contr. No. 119 Woods Hole Oceanogr. Inst.). Washington (1936). **b - 1076**

List with remarks of 108 species. Key to Skates and Rays.

**Blanckenburg K.** - Segelfisch-Fang im Golfstrom [*« Histiophorus volador » species capta in* Golfstrom]. 1 Abb., Natur u. Volk, LXVI, 8, 428-430. Frankfurt a. M. (1936). **b - 1077**

Diese Art ist sehr häufig in ihrer Heimat, den Westindischen Gewässern, wurde aber erst im Jahre 1925 in der Wissenschaft unter dem Namen *Histiophorus volador* Jordan & Evermann bekannt.

**Bolin R. L.** - Two new Cottid Fishes from the Western Pacific, with a Revision of the Genus *Stlengis* Jordan and Starks [*Pisces duo novi ex Cottidis ab Oceano Pacifico Occid. provenientibus. Reinspectio generis «Stlengis»*]. 1 pl., 2 figs., 2 tabl., Proc. U. S. Nat. Mus., LXXXIII, 2987, 325-334. Washington (1936). **b - 1078**

*Stlengis distoechus* n. sp. and *Astrocottus leprops* n. gen., n. sp.; diagnosis. Genus *Stlengis*: diagnosis and key.

**Bolin R. L.** - New Cottoid Fishes from Japan and Bering Sea [*Piscis novus inter Cottoidea e Japonia et mari* Bering]. 8 figs., Proc. U. S. Nat. Mus., Smithson. Inst., LXXXIV, 3000, 25-38. Washington (1936). **b - 1079**

Description of three new forms: *Ricuzenius nudithorax*, *Atopocottus tribranchius* and *Phasmatocottus ctenopterygius* collected by the « Albatross ».

**Bourkov A.** - Sur la pêche de la morue près de la rive occidentale de la Novaja Zemlja [*De merluccii piscatione ad ripam occidentalem Novajae Zemliae*]. (En russe). 3 fig., Za Rybn. Ind. Sev. 2, 31-36. Leningrad (1936). **b - 1080**

**Breder C. M. Jr.** - *Heterosomata* to *Pediculati* from Panama to lower California [*Ab Heterosomatis ad Pediculatos. A regione Panamensi ad regionem Californiensem inferiorem*]. 19 fig., 56 pp., Bull. Bingham Oceanogr. Coll., Peabody Mus. Natur. Hist., II, 3. New Haven, Conn. (1936). **b - 1081**

Annotated systematic list of species of the order *Heterosomata* collected in the second Oceanographic Expedition of the « Pawnee » in 1926. In the present contribution are described one new genus, 7 new species and one new sub-species.

**Brimley H. H.** - Notes on the Occurrence of a Whale Shark (*Rhineodon typus*) in the Cape Fear River, near Southport, North Carolina [*Notae de praesentia speciei « Rhineodon typus » in* Cape Fear River *apud* Southport *in* North Carolina]. 1 pl., Journ. Elisha Mitchell Scient. Soc., LI, 1, 160-162. Chapel Hill, N. C.(1935). **b - 1082**

This species has been found much farther north than previously reported probably influenced by the Gulf Stream.

**Brimley H. H.** - Basking Shark in North Carolina Waters [*Species « Cetorhinus maximus » in* North Carolina]. Journ. Elisha Mitchell Scient. Soc., LI, 2, 311. Chapel Hill, N. C. (1935). **b - 1083**

Extension of the southern range of *C. maximus* 430 miles from Sea Girt, New Jersey, to southern N. Carolina coast.

**Cadenat J.** - Les Serranidés de la côte occidentale d'Afrique (du Cap Spartel au Cap Vert). [*Serranidae ad litora occidentalia Africana pertinentes*]. 30 fig., tabl., Off. Pêches Marit., Rev. Trav., VIII, 4, 377-422. Paris (1935). **b - 1084**

Après une introduction d'ordre général sur les Serranidés, sur leur place parmi les poissons et les caractères de la famille, l'A. indique les noms latins, français et étrangers, la formule radiaire, la diagnose spécifique, la description de l'appareil digestif et circulatoire, la coloration, la distribution géographique, l'éthologie et la pêche, et s'arrête plus particulièrement sur les trois espèces typiques des côtes occidentales d'Afrique, à voire: *Epinephelus aenus, E. caninus* et *E. gigas*. (Bibl.).

**Castelnuovo G.** - Contributo biometrico alla conoscenza sistematica delle triglie [*Contributio biometrica in Mullidas e systematica cognoscendas*]. 26 fig., Boll. Pesca, Piscicult. e Idrobiol., XII, 4, 289-301. Roma (1936). **b - 1085**

Caratteri esterni differenziali fra il *Mullus barbatus* L. e il *M. surmuletus* L. provenienti dai banchi di Lampedusa. I risultati numerici ottenuti non presentano differenze tali da poter costituire caratteri diagnostici specifici di un gruppo, dato poi che è difficile stabilire se le differenze constatate non siano invece dovute a variabilità casuali. Il metodo biometrico non è sufficiente per risolvere il problema sistematico dei Mullidi.

**Chabanaud P.** - Les Poissons de mer exotiques aux Halles centrales de Paris. Remarques sur diverses espèces, notamment *Solea senegalensis* Kaup et *Hilsa reevesi* H. B. [*Pisces marini exotici in foris piscatoriis centralibus Parisiis. Observationes circa varias species. Particulatim agitur de « Solea senegalensis » et « Hilsa reevesi »*]. Bull. Mus. Nat. Hist. Natur., VIII, Sér. 2, 1, 61-64. Paris (1936). **b - 1086**

Par la présence d'installations frigorifiques à bord des chalutiers aux Halles de Paris parviennent des poissons exotiques. Description des deux espèces surmentionnées.

**Chabanaud P.** - La fenêtre interbranchiale des Téléostéens dyssymétriques [*Apertio interbranchialis in Teleosteis dissymmetricis*]. 2 fig., C. R. Acad. Sc., CCII, 24, 2014-2016. Paris (1936). **b - 1087**

L'A. a pu constater au cours de ses observations l'hétérogénéité de la fenêtre interbranchiale des *Pleuronectoidea*; cette particularité constitue un nouveau caractère distinctif qui vient s'ajouter à tous ceux que l'A. a mentionnés entre *Pleuronectiformes* et *Soleiformes* (v.: Ann. Inst. Océanogr., XV, 223-298, 1936).

**Chevey P.** - Présence sur les côtes d'Indochine d'un requin japonais très rare *Calliscyllium venustum* Tanaka [*Species « Calliscyllium venustum » rarissima reperta in litoribus Indosinensibus*]. Bull. Soc. Zool. France, LX, 383. Paris (1935). **b - 1088**

**Chevey P.** - Sur la présence du genre *Anguilla* en Indochine Française [*De genere « Anguilla » in Francogallica regione Indosinensi*]. 1 fig., Bull. Mus. Nat. Hist. Natur., VIII, Sér. 2, 1, 65-68. Paris (1936). **b - 1089**

La découverte de l'*A. japonica* en Indochine est très intèressante pour l'étude de la répartition de cette espèce, pour les lois de circulation des eaux dans la mer de Chine et aussi au sujet des larves léptocéphales déterminées par Tirant.

**Chevey P.** - Sur la présence d'une seconde espèce d'Anguille en Indochine française et sur les lois de la circulation des eaux dans la mer de Chine méridionale [*De altera specie Anguillarum in Indosinica regione Francogallica deque legibus circulationis aquarum in maribus sinensibus Meridionalibus*]. Bull. Mus. Nat. Hist. Natur., VIII, Sér. 2, 2, 130-131. Paris (1936). **b - 1090**

L'A. signale la présence dans les eaux douces du Centre Annam de l'*Anguilla mauritiana* Bennet: les larves auraient été entraînées par les courants marins existant dans le Nord de la Mer de Chine méridionale.

**Chevey P.** - Capture d'un Requin-Baleine, *Rhineodon typus* A. Smith, en Cochinchine [*Species « Rhineodon typus » in* Cochinchine *reperta*]. 9 pl., Inst. Océanogr. Indochine, 28, 3-23. Saigon (1936). **b - 1091**

Résumé des connaissances sur ce Poisson; systématique, morphologie, biologie, distribution géographique. Bibl.

**Clemens W. A. & Clemens L. S.** - Contributions to the Life-History of the Sockeye Salmon [*Contributiones in studendum cyclum vitae speciei « Oncorhynchus nerka »*]. 29 tabl., Rep. Commiss. Fish. for 1935, 21-44. Victoria B. C. (1936). **b - 1092**

Some unusual features stated in the 1935 runs of sockeye salmon to the four main river systems of B. C. Designation of age-groups. Runs of the four rivers: general characteristics, age-groups, lengths and weights, distribution of the sexes. Statistical tables.

**Corradini P.** - Sulla consistenza di alcune differenze biometriche della specie *Mullus barbatus* e *Mullus surmuletus* [*De aliquis differentiis biometricis specierum « Mullus barbatus » et « Mullus surmuletus »*]. 2 fig., Boll. Zool., VI, 5/6, 333-344. Napoli (1935). **b - 1093**

Secondo le osservazioni dell'A. tutti i caratteri distintivi tra le due specie di Mullus, sono inconsistenti. La specie *M. barbatus* presenta un habitat di fango e un habitat di scoglio, e la diversa nutrizione determina forse un diverso gusto delle carni. Notevole è la vasta oscillazione del tipo di curva craniale e i fattori che determinano questa oscillazione fanno intravedere la presenza di due diverse « costituzioni » nel *M. barbatus*: una ipotiroidea, l'altra ipertiroidea, corrispondenti a due diversi profili.

**Crane J.** - Notes on the Biology and Ecology of Giant Tuna, *Thunnus thynnus* Linnaeus, observed at Portland, Maine [*Notae de biologia et oecologia speciei « Thunnus thynnus » in* Portland, Maine *observatae*]. 1 pl., 1 fig., Zoologica, XXI, 3, 12/18, 207-212. New York (1936). **b - 1094**

Description of *Thunnus thynnus*: colors, measurements and counts, growth characters. Size and weight, sex, occurrence, schooling, parasites, food.

**D'Ancona U.** - Attuali conoscenze su alcune questioni relative alla biologia dell'anguilla [*De hodiernis cognitionibus de quibusdam quaestionibus*

*circa anguillae biologiam*]. Atti Soc. It. Progr. Sc., Riun. 24, IV, 1, 17-34. Roma (1936). **b - 1095**

L'A. espone le attuali conoscenze sull'origine marina dell'anguilla, e tratta della discussa questione della riproduzione dell'anguilla nel Mediterraneo e del suo differenziamento sessuale. Le ricerche dello Schmidt e quelle di Grassi; gli studi riguardanti il sesso delle anguille della Laguna Veneta.

**Davis F. M.** - A Contribution to the « Race Question » [*Contributio in questionem studendam de stirpe Aringorum*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 12-13. Copenhague (1936). **b - 1096**

On the question of hereditary characters or environmental factors in distinguishing different herring populations. A. claims the environmental influences of the area where the herrings were born to be the predominating factor.

**De Lacy A. C. & Chapman W. M.** - Notes on some Elasmobranchs of Puget Sound [*De Elasmobranchiatis ad* Puget Sound *pertinentibus*]. Copeia, 2, 63-67. New York (1935). **b - 1097**

*Apristurus brunneus* (Gilbert), *Tetranarce californica* (Ayres), *Squalus suckleyi*, *Raja rhina*, *R. binoculata* and *Hydrolagus colliei*. Description, eggs.

**Delpino I.** - La *Trutta genivittata* (Heckel-Kner, 1858) e la sua diffusione in Italia [*De specie « Trutta genivittata » eiusque diffusione in Italia*]. Atti Soc. It. Progr. Sc., IV, 1, 85-88. Roma (1936). **b - 1098**

Descrizione della *Trutta genivittata* e sua diffusione. La *T. genivittata* e la *T. adriatica*.

**Desbrosses P.** - Contribution à la connaissance de la biologie du Rouget-Barbet en Atlantique Nord. III. *Mullus barbatus* (Rond.) *surmuletus* (Fage) [*Contributio in cognoscendam biologiam speciei « Mullus barbatus surmuletus » in Atlantico septemtrionali. III.*]. 14 fig., 7 tabl., Rev. Trav. Off. Pêches Marit., VIII, 4, 351-376. Paris (1935). **b - 1099**

Croissance du rouget-barbet en Atlantique-Nord; dates de l'arrêt de croissance et de l'apparition de l'anneau d'hiver sur l'écaille; tailles extrêmes; longévité; croissance calculée d'après l'écaille. Composition du stock d'hiver: répartition suivant la profondeur. Maturité sexuelle, époque et lieux de ponte. Formule vertébrale. (Voir Partie I & II ibidem, VI, 3, 1933; VIII, 3, 1935).

**Desbrosses P.** - Contribution à la connaissance de la biologie du Rouget-Barbet en Atlantique Nord. IV. [*Contributio quoad biologiam speciei « Mullus barbatus surmuletus » in Atlantico septemtrionali repertae*]. 19 fig., 11 tabl., Rev. Trav. Off. Pêches Marit., IX, 4, 36, 339-401. Paris (1936). **b - 1100**

Examen des caractères morphologiques. Caractères numériques: rayons des nageoires, écailles, vertèbres: caractères métriques: croissance relative, intensité de croissance des différents parties du corps, gradients de croissance, variabilité individuelle, croissance relative des mâles et des femelles, fluctuations probables des proportions moyennes dans les deux sexes. Correlations entre la taille et le poids suivant les sexes: poids moyen des Rougets suivant la saison. Correlations entre le poids et l'âge. Appendice: résultats des mensurations des rougets-barbets d'Atlantique Nord, groupés par classes et par sexes.

**Dons C.** - Den zoologiske Avdeling: Fiskesamlingen [*Sectio zoologica: Pisces*]. Kgl. Norsk. Vidensk. Selsk. Mus. Årsber. 1934, 48-50. Trondheim (1935). **b - 1101**

Report on new accessions of about 15 species, all captured in Norwegian waters.

**Duncker G.** - Die Fische der Nordmark I, II [*Pisces in regione* Nordmark]. 48 S. + 44 S. Taf., Hrsg. Naturw. Ver. Schleswig-Holstein. Kiel (1935 & 1936). **b - 1102**

Namen, Diagnose, Lebensweise, Verbreitung von 28 Arten (in Lief. I) und 20 Arten (in Lief. II) der *Cyclostomi*, *Plagiostomi*, *Acipenseridae*, *Clupeidae* und *Cyprinidae*.

**Duncker G. & Mohr E.** - Die nordeuropäischen *Ammodytes* - Arten des Hamburger Zoologischen Museums [« *Ammodytes* ». *Species nordeuropaeae in Museo Zoologico Hamburgensi*]. Zool. Anz., CX, 7/8, 216-220. Leipzig (1935). **b - 1103**

Systematische Uebersicht von drei *Ammodytes-Arten*.

**Ehrenbaum E.** - Naturgeschichtliche und wirtschaftliche Bedeutung der Seefische Nordeuropas [*De momento Piscium marinorum Europae Sept. pro historia naturali et oeconomia*]. 276 Abb., 26 Taf., 2 Tabellenbeil. viii-337 S., Handb. der Seefisch. Nordeuropas, II, E. Schweizerbart. Stuttgart (1936). **b - 1104**

Das vorliegende Werk erscheint als II. Band des « Handbuches der Seefischerei Nordeuropas » und ist als Sonderausgabe erhältlich. Es ist hauptsächlich für Fischerei-Interessenten aus der Praxis, sowie für Fischereibiologen bestimmt und besteht aus 10 Bänden: Im vorliegenden II. Bande bespricht Vf. die nordeuropäische Fischfauna unter Hervorhebung der wirtschaftlich wichtigen Formen in Einzeldarstellungen, wobei Angaben über die Systematik der einzelnen Arten sowie Beschreibungen gehalten sind. Alle Probleme, welche die moderne Fischereiforschung beschäftigen, sind ausführlich behandelt. Besondere Berücksichtigung findet die Fangstatistik.

**Enger M.** - Beitrag zur Kenntnis der Meerforelle [*Contributiones quoad cognitiones de tructa marina*]. Tab., Ztschr. f. Fisch., XXXIV, 4, 727-734. Neudamm & Berlin (1936). **b - 1105**

Ergebnisse der Untersuchungen von 50 Meerforellen der 0- und 1- Gruppe. Körperproportionen. Kopfmasse. Höhenmasse. Entfernung der Ansatzstellen der Flossen von der Schnauzenspitze. Flossenstrahlen. Anzahl der Schuppen und Wirbel. Zähne: Zahl, Dichte und Länge.

**Foerster R. E.** - An Investigation of the Life History and Propagation of the Sockeye Salmon at Cultus Lake, British Columbia. No. 5. The Life History Cycle of the 1926 Year Class with Artificial Propagation Involving the Liberation of Free-Swimming Fry [*Investigationes in cyclum evolutionis et in propagationem speciei « Oncorhynchus nerka » in lacu* Cultus (*in Columbia Britannica*). *N. 5. Cyclum evolutionis quoad turmam anni 1926 eiusque propagatio artificialis per juvenes pisces libere natantes*]. 2 figs., 8 tables. Journ. Biol. Bd. Canada, II, 3, 311-333. Toronto (1936). **b - 1106**

Results of investigations of the life history and propagation of O. *nerka* at Cultus Lake, B. C., undertaken primarily to determine the relative efficiencies of both natural and artificial methods of propagation. The first test of artificial propagation involving distribution of free-swimming fry was made in 1926-27 season and the results are reported upon in the present paper together with the data relating to the complete life cycle.

**Fowler H. W.** - The marine Fishes of West Africa based on the Collection of the American Museum Congo Expedition 1909-1915. Part I

[*Pisces marini Africae Occid. e collectione provenientes confecta perdurante expeditione in* Congo *A. 1909-15 ab* American Museum *suscepta*]. 1 pl., 275 figs., Bull. Amer. Mus. Natur. Hist., LXX, 1, 3-605. New York (1936). **b - 1107**

Descriptive account of the fishlike Vertebrates known from the coast of western tropical Africa between Morocco and Angola. The marine fishes number about 250 specimens and have been little noticed by ichthyologists. Detailed description of each species and genera with technical name and synonyms; the classification used is taken from the definitions of Günther and Jordan. In this collection the influx of various faunal elements is very evident: such as the great preponderance of Mediterranean species which may extend to the Cape of Good Hope.

Description of: *Leptocardii*, *Marsipobranchii* and Pisces with subclass *Selachii*, *Holocephali* and *Teleostei*.

**Fowler H. W.** - The Marine Fishes of West Africa [*Pisces marini Africae occid.*]. 291 figs., Bull. Amer. Mus. Natur. Hist., LXX, 2, 607-1493. New York (1936). **b - 1108**

Study of the group *Scomberoidei* and subgroups *Scombriformes*, *Xiphiformes*, *Coryphaeniformes*, *Bramiformes*, *Stromateiformes* and *Carangiformes*, with key to the families and to the species. Synonymies and bibliography, description of the body form for each specimen, anatomical characters, teeth and ray of the fins, pigmentation, food, geographical distribution, localities. Appendix and addenda in relation to some works and references which have appeared since the revision of the manuscript, especially « Discovery » and « Dana » reports. Index of the species described.

**Fowler H. W.** - Description of a New Scorpaenoid Fish (*Neomerinthe Hemingwayi*) from off New Jersey [*Descriptio novi cuiusdam piscis Scorpaenoideis* « *Neomerinthe Hemingwayi* » *e litore regionis* New Jersey *provenientis*]. 1 fig., Proc. Acad. Natur. Sc. Philadelphia, 1935, LXXXVII, 41-43. Philadelphia (1936). **b - 1109**

This fish represents a new genus and species very similar to the Pacific or Hawaiian genus *Merinthe* Snyder.

**Fowler H. W.** - Zoological Results of the third de Schauensce Siameee Expedition, Part VI. Fishes obtained in 1934 [*Resultatus zoologici tertiae expeditionis Siamensis nomine* de Schauensee. *Pars VI. Pisces collecti A.* 1934]. Proc. Acad. Natur. Sc. Philadelphia 1935, LXXXVII, 89-163. Philadelphia (1936). **b - 1110**

2394 specimens are obtained represented by 298 species of which 25 are new and one new subfamily. The marine or tidal species were obtained at Bangkok, Paknam and Sriracha during May, July and September 1934.

**Fowler H. W.** - South African Fishes received from Mr. H. W. Bell-Marley in 1935 [*Pisces Africae merid. collecti ab* H. W. Bell-Marley *A. 1935*] 39 figs., Proc. Acad. Natur. Sc. Philadelphia 1935, LXXXVII, 361-408. Philadelphia (1936). **b - 1111**

This collection including 291 specimens representing 167 species, is chiefly of interest as it represents rare and little-known species as well as rediscoveries of Indian Ocean species very imperfectly known. There are nine new species and three new genera.

**Fraser-Brunner A.** - Notes on the Plectognath Fishes. II. A Synopsis of the Genera of the Family *Ostraciontidae* [*Notae de Piscibus plectognatis. II. Synopsis generum ad familiam* « *Ostraciontidae* » *pertinentium*]. 1 fig., Ann. & Mag. Natur. Hist., XVI, 92, 313-320. London (1935). **b - 1112**

Diagnosis of the family, key and synopsis of 12 genera. *Rhynchostracion rhinorhynchus* n. sp.

**Fraser - Brunner A.** - The Validity of *Phycodurus* Gill, a Genus of Syngnathid Fishes [*Genus* « *Phycodurus* » *ad Pisces Syngnathidos pertinens, eiusque validitas*]. 2 figs., Copeia, 1, 21-22. New York (1935). **b - 1113**

Comparison with *Phyllopteryx*. Claim for the validity of *Phycodurus*.

**Fry D. H. Jr.** - A Preliminary Summary of the Life History of the Pacific Mackerel [*Compendium prius de cyclo vitali speciei* « *Pneumatophorus diego* »]. 4 graphs, 1 map, Calif. Fish & Game, XXII, 1, 30-39. Sacramento (1936). **b - 1114**

Distribution; abundance; spawning, nursery grounds; growth rate, weight and length, commercial sizes; food; migration.

**Furnestin J.** - Quelques observations sur les harengs du Fladen Ground [*Observationes de aringis regionis* Fladen Ground]. 3 diagr., Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 13-15. Copenhague (1936). **b - 1115**

Rapport sur le matériel recueilli par le Laboratoire de l'Office Scientifique et Technique des Pêches à Boulogne sur Mer pendant 1929-1934 pour étudier l'état de maturité sexuelle des Harengs.

**Gandolfi Hornyold A.** - La civelle d'Arcachon et d'Aguinaga [*De anguillulis ad regiones* Arcachon *et* Aguinaga *pertinentibus*]. Tabl., Bull. Stat. Biol. d'Arcachon, XXXII, 2, 173-181. Bordeaux (1935). **b - 1116**

Longueur et poids moyen et maximum, variations; comparaison entre les civelles d'Arcachon et les civelles d'Aguinaga. Pêche, repeuplement, vente.

**Gandolfi Hornyold A.** - La taille maximum de la civelle du Golfe de Gascogne [*De maxima magnitudine anguillularum Sinus Vasconici*]. Tabl., Bull. Soc. Océanogr. France, XVI, 91, 1569-1571. Paris (1936). **b - 1117**

La taille maximum trouvée par l'A. est 80 cm. après fixation au formol.

**Gilson G.** - Further Observations on Spent Herring with Remarks on Fluctuations and Oscillation [*Observationes ulteriores de aringis qui peperierunt. Notae de fluctuatione et oscillatione*]. 2 fig., Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 3ème partie, 22-25. Copenhague (1936). **b - 1118**

The results of the observations undertaken on 6 yearclasses (1930-1936) concerning number examined, mean and total weight, total value and number of individuals destroyed are plotted as well as the fluctuation and evolution of successive yeargroups. Forecast for the season 1936-37.

**Giltay L.** - Note sur quelques poissons marins du Congo Belge [*Notae de Piscibus quibusdam marinis in* Congo Belge]. 3 fig., Bull. Mus. r. Hist. Natur. Belgique, XI, 36, 1-15. Bruxelles (1935). **b - 1119**

20 espèces ont été enregistrées avec synonymes et principaux caractères. *Paratyntlastes* n. g. avec l'espèce *P. Africanus* n. sp.

**Ginsburg I.** - Description of a New Flatfish, with Notes on Related Species [*Hippoglossus novus. Descriptio et notae circa species affines*]. 1 fig., Journ. Washington Acad. Sc., XXVI, 3, 128-133. Washington (1936). **b - 1120**

*Hippoglossina mystacium* n. sp. Discussion on spp. of *Pseudorhombus* and *Paralichthys*. Key.

**Gladkov N. A.** - Die Materialien zur Biologie und Fang der Aralischen Plötze [*Res collectae ad studendam biologiam et modum captandi speciem « Rutilus rutilus aralensis »*]. (In Russ.). 8 Abb., Rep. Aral-sea Div. Inst. Mar. Fish. IV, 77-112. Aralsk (1935). **b - 1121**

Verbreitung im Meer. Laichen. Fortpflanzung. Junge Fische. Wachstum. Nahrung. Industrie. Schlussfolgerungen.

**Godsil H. C.** - The Frigate Mackerel [« *Auxis thazard* »]. 1 fig., Calif. Fish & Game, XXII, 1, 52-53. Sacramento (1936). **b - 1122**

Short note with figure on this specimen found on November 6, 1935, near Catalina Island.

**Graham M.** - Investigations of the Herring of Passamaquoddy and Adjacent Regions [*Investigationes in aringos regionis* Passamaquoddy *regionumque adiacentium*]. 16 figs., 10 tables. Journ. Biol. Bd. Canada, II, 2, 95-140. (Contr. No. 96 Woods Hole Oceanogr. Instit.). Toronto (1936). **b - 1123**

Results of observations made from September 1931 to November 1932 in the area of the sardine fishery and the sea between Boston and Liverpool, Nova Scotia. The fishery for sardine herring seems to be partly dependent on extremely local conditions and affected by factors of which we are ignorant. Length measurements, study of the productivity of single restricted localities and the physical factors affecting the herring fishery.

**Gudger E. W.** - The Earliest Published Figures (1613-1758) of the Oblong or Truncate-tailed Ocean Sunfish, *Ranzania truncata* [*De prioribus notitiis editis de Pisce oblongato cauda truncata praedito ad familiam « Molidae » pertinenti: « Ranzania truncata »*]. 1 fig., Nature, CXXXVII, 3475, 947-948. London (1936). **b - 1124**

This species was first figured by Ulisse Aldrovandi in his book « De Piscibus Libri V » in 1613 under the name of *Mola peregrina*. The name *Ranzania truncata* was given 226 years later in honour of Ranzani, another Italian writer on the *Molidæ*.

**Gudger E. W.** - A Whale Shark off Bimini, Bahamas [*Genus « Rhineodon » apud* Bimini (Bahamas) *repertum*]. Science, LXXXIV, 2175, 227. New York (1936). **b - 1125**

Referring to his earlier work on the distribution of the Whale Shark (Proc. Zool. Soc. London p. 882, 1934) A. here presents some other records in the waters of Bahamas and Florida.

**Gudger E. W.** - The Whale Shark off Havana [*Genus « Rhineodon » in litoribus insulae* Havana]. 1 fig., Scient. Monthly, XLII, January, 84-85. Lancaster, Pa. (1936). **b - 1126**

Some records of whale sharks captured off Havana. Description of the last specimen caught on April 12, 1934.

**Gustafson G.** - On the Biology of *Myxine glutinosa*. [*De biologia speciei « Myxine glutinosa »*]. Ark. f. Zool., XXVIII A, H. 1, 2, 1-8. Stockholm (1935). **b - 1127**

On the difficulty of studying *Myxine glutinosa*. Capture experiments with surface waters, habits in the aquaria. Respiration; feeding.

**Hardenberg J. D. F.** - On a Collection of Fishes from the Estuary and the lower and middle Course of the River Kapuas (W. Borneo) [*De collectione quadam Piscium ab aestuario provenienti et cursibus inferiore et medio fluminis* Kapuas (*in* Borneo *occid.*)]. Treubia, XV, 3, 225-254. Buitenzorg (1936). **b - 1128**

List of 222 species from salt brackish and fresh water. 3 new species: *Corica bleekeri* n. sp. (*Clupeidae*), *Callichrous weberi* n. sp. (*Siluridae*) and *Johnius weberi* (*Sciaenidae*).

Redescription of several rare species and taxonomical notes on many others. Life-history notes. Several species were hitherto not recorded from Borneo. Types in the Laboratory for Investigation of the Sea, Batavia.

**Hart J. L.** - The Application of Statistical Methods to the Investigations of the Pilchard, *Sardinops caerulea* (Girard) [*Applicatio rationum statisticarum ad investigationes perficiendas de specie « Sardinops caerulea »*]. Proc. 5th Pacific Sc. Congr. 1933, 5, 3725-3732. Univ. Toronto Press, Toronto (1934). **b - 1129**

Necessity of systematic collection of complete fishery statistics elucidated by biological examinations.

Particular difficulties of biological analysis as to the pilchard fishery. Failed researches in B. C. and California. No proof of decline in the abundance of pilchards in B. C.

**Herre A. W.** - Two new Species of *Ctenogobius* from South China (*Gobiidae*) [« *Ctenogobius* » *species duae novae a Sinensi regione merid. provenientes*]. Lingn. Sc. Journ., XIV, 3, 395-397. Canton (1935). **b - 1130**

*Ctenogobius myxodermus* n. sp. and *C. leavelli* n. sp.

**Herre A. W.** - A New Sciaenid from southeastern China [*Piscis novus Sciaenoideus a Sinensi regione sudoccid. proveniens*]. Lingn. Sc. Journ., XIV, 4, 603-604. Canton (1935). **b - 1131**

*Otolithes*, subgen. *Bahaba*, type *O.* (*B.*) *lini* n. sp. caught below the delta region not far from Hong Kong.

**Herre A. W.** - Fishes in the Zoölogical Museum of Stanford University. III. New Genera and Species of Gobies and Blennies and a new *Myxus*, from the Pelew Islands and Celebes [*Pisces in Museo Zoologico Universitatis* Stanford. *III. Gobidarum et Blennidarum genera speciesque nova ad insulas* Pelew *et* Celebes *pertinentia « Myxus » novus*]. 1 pl. o. t., Philipp. Journ. Sc., LIX, 2, 275-287. Manila (1936). **b - 1132**

This paper is a continuation of the series on noteworthy fishes in the Stanford University collection.

Three new genera and nine new species are described. These Philippine fishes are of importance as a contribution to the study of the distribution of fishes in the western Pacific.

**Herre A. W.** - Notes on Fishes in the Zoölogical Museum of Stanford University, V. New or rare Philippine Fishes from the Herre 1933 Philippine Expedition [*Notae de Piscibus in Museo Zoologico Universitatis* Stanford. *V. Pisces novi et rari ab expeditione* Herre, *A. 1933 ad Insulas Philippinas collecti*]. 2 pls., Philipp. Journ. Sc., LIX, 3, 357-373. Manila (1936). **b - 1133**

One new genus and seven new species are recorded and described. Besides, there are distributional notes on a great number of rare species, most of them unknown from the Philippines until now. Evidence is presented that many shore fishes as yet known only from the Philippines are also to be found in the China Sea.

**Hessle C.** - Gotlands Havslaxöring [« *Trutta marina* » *ad Gotlandiam pertinens*]. Mitteil. Anst. Binnenfisch. Drottningholm, 7. Stockholm (1935). **b - 1134**

Vorkommen, Wanderungen, Länge, Laichzeit und Geschlechtsreife.

**Hodgson W. C.** - The Present State of Knowledge concerning the Origin and Distribution of Herring Populations in Western European Waters. The Southern Bight [*De hodiernis cognitionibus quoad originem et distributionem populationum aringorum in maribus europaeis occid. Area* Southern Bight.]. Cons. Expl. Mer., Rapp. & Pr.-Verb., C, 2ème partie, 19-20. Copenhague (1936). **b - 1135**

A. claims his views on the interrelationship between the East Anglian autumn herring shoals and certain well-known spawning grounds. Groups of adult and young fish.

**Holly M.** - *Pisces: Ganoidei.* – xvi + 65 S. Das Tierreich gegr. v. Dtsch. Zool. Ges., Lief. 67, 4. Walter de Gruyter & Co. Berlin & Leipzig (1936). **b - 1136**

**Holly M.** - Die *Ammodytes* Arten der Küste des Königreiches Belgien [*Species « Ammodytes » in litoribus Belgicis*]. 1 Abb., Tab., Bull. Mus. R. Hist. Natur. Belg., XII, 5, 1-19. Bruxelles (1936). **b - 1137**

Tabellarische Zusammenstellung der gefundenen Exemplare von *Ammodytes lanceolatus*, *A. tobianus* und *A. marinus*. Ortsangaben. Neuer Fundort für *A. marinus*. Vergleich zwischen den Arten.

**Holly M.** - Die Syngnathiden der Belgischen Küstengewässer [*Syngnathidae ad aquas litoreas Belgicas pertinentes*]. Bull. Mus. R. Hist. Natur. Belg., XII, 7, 1-3. Bruxelles (1936). **b - 1138**

Unter Berücksichtigung seiner früheren in 1935 angefangenen Arbeit über die Fische der Nordsee gesammelt in den belgischen Küstengewässern gibt Vf. hier Auskünfte über Fundort, Länge usw., für *Entelurus aequoreus* L., *Nerophis lumbriciformis* Penn., *Syngnathus acus* L., *S. typhle* L., *S. rostellatus* und *Hippocampus guttulatus* Cuv.

**Hora S. L.** - Siluroid Fishes of India, Burma and Ceylon II. III. IV. V [*Pisces Siluroidei ad Indiam*, Burma *et* Ceylon *pertinentes*]. 4 fig., Rec. Ind. Mus., XXXVIII, 2, 199-209. Calcutta (1936). **b - 1139**

II. Fishes of the genus *Akysis*; list of separate characters from *Amblycepidae*; *A. prashadi* sp. nov. - III. The genus *Olyra*; differences from *O. longicaudata* and *O. laticeps*. - IV. On the use of the generic name *Wallago* Bleeker. - V. Fishes of the genus *Heteropneustes* Müller.

**Hora S. L.** - Air-breathing Fishes of India [*Pisces qui aërem respirant*]. Trans. Nat. Inst. Sc. India I, 1. (?) (1936). **b - 1140**

Different habitats and ecological associations, factors influencing the air-breathing in the various environments. Detailed study of the respiratory function.

**Hora S. L. & Mukerji D. D.** - European Species of Fish from the Tavoy Coast, Burma [*Species europeae Piscium in litoribus* Tavoy, Burma]. Nature, CXXXVII, 3456, 152. London (1936). **b - 1141**

Preliminary note on the occurrence of certain Atlantic species in Indian waters (five forms recorded). See further Rec. Indian Mus. XXXVIII.

**Hora S. L. & Mukerji D. D.** - Notes on Fishes in the Indian Museum. XXVII. - On Two Collections from Maungmagan, Tavoy District, Lower Burma [*Notae de Piscibus Musei Indiani. XXVIII. De duabus collectionibus in* Maungmagan (*Districtu* Tavoy, Burma *inferiore*)]. 6 figs., 2 pls., Rec. Ind. Mus., XXXVIII, 1, 16-39. Calcutta (1936). **b - 1142**

Description of the collections containing besides fairly common species, two new species belonging to the families *Syngnathidae* and *Gobiidae*, i. e. *Nannocampichthys gigas* gen. et sp. n., and *Ctenogobius meggitti* sp. n. and specimens of six species, viz. *Ammodytes lanceolatus* Le Sauvage, *Blennius pholis*, Linn., *Psenopsis anomala* (T. & S.), *Trachinus draco* Linn., *Cottus bubalis* Euphrasen, and *Lophius piscatorius* Linn., which have not been previously recorded from Indian waters.

**Howell Rivero L.** - Nuevo genero de peces para Cuba [*Piscium genus novum a Cuba provenientium*]. 1 tav., Mem. Soc. Cubana Hist. Natur., VIII, 2, 69-72. Habana (1934). **b - 1143**

*Bathystorreus* n. gen.; type: *B. claudei* n. sp. (*Benthocomates* c. Torre).

**Howell Rivero L.** - Some New and Rare Cuban Eels [*Anguillae Cubanae novae seu rarae*]. 1 photo, 3 figs., Mem. Soc. Cubana Hist. Natur., VIII, 6, 339-344. Habana (1934). **b - 1144**

*Ariosoma minor* n. sp. (*Congridae*), *Myrophis emmae* n. sp., *Merinthichthys sanchezi* n. sp. and some other spp. (*Echelidae*).

**Howell Rivero L.** - Six Records of the pointed-tailed Ocean Sunfish near Havana, Cuba [« *Masturus lanceolatus* ». *Registrationes sex apud* Havana, Cuba]. 1 fig., Amer. Natural., LXXX, 726, 92-95. Lancaster, Pa. (1936). **b - 1145**

This rare fish is often confused with *Mola mola*. The specimens recorded here were caught or observed in the years 1913, 1932 and 1934.

**Ivanauskas T.** - Lietuvos jūros pakraščio, neiskaitant Kuršmariu, žuvu sarasas [*Index Piscium repertorum in litoribus Lituanicis ad mare Album*]. (In Lit.). 1 tav., Mem. Fac. Sc. Vytautas le Grand Univ., IX, 1, 83-96. Kaunas (1934). **b - 1146**

Note su 38 specie di pesci generalmente trovate dai pescatori locali.

**Jacobs W. & Schindler O.** - Der spanische Reuterfisch [« *Monocentris japonicus* »]. 4 Abb., Natur u. Volk, LXVI, 8, 399-402. Frankfurt a. M. (1936). **b - 1147**

Klassifikation; Beschreibung mit besonderer Berücksichtigung der Rückenstacheln.

**Järvi T. H.** - Skärkniven i Finska Viken [« *Pelecus cultratus* » *ad pertinens Sinum Finnicum*]. (In Sved.). 3 fig., 2 carte, Fiskeritidskr. f. Finl., XLIII, 5, 91-95. Helsinki (1936). **b - 1148**

Descrizione di un pesce raro catturato nel fiume « Sjundeå » (Finlandia), comunicante col mare. Alcuni dati sulle specie affini, sulla distribuzione e sullo sviluppo.

**Joubin L.** (sous la direction). Faune ichthyologique de l'Atlantique Nord [*Fauna ichthyologica Oceani Atlantici sept.*]. 34 fig., Cons. Expl. Mer, 16. Copenhague (1936). **b - 1149**

Liste de 34 fiches compilées par d'Ancona, Schnakenbeck, Ehrenbaum, Bruun, Mohr, Ninni, F. de Buen, etc. contenant la description de *Blennius galerita*, *B. pavo*, *B. pholis*, *B. sanguinolentus*, *Aphya minuta*, *Callionymus lyra*, *C. maculatus*, *Chlamydoselachus anguineus*, *Cypsilurus heterurus*, *C. lineatus*, *Lichia glauca*, *Lumpenus maculatus*, *Macrorhamphosus scolopax*, *Notacanthus nasus*, *Tripterygion tripteronotus*, *Zoarces viviparus*.

**Joudanov I. G.** - Perspectives de la pêche de l'*Acipenser güldenstädti* dans la Baie de l'Obj près de N.-Port (d'après les matériaux de 1930) [*Rationes et proposita piscatoria circa speciem « Acipenser güldenstädti » in Baja* Obj *apud* N.-Port]. (En russe). Tabl., Rab. Obsko-Tazovsk. Naoutchn. Rybo-Khoz. Stantz. (Trav. Stat. Scient. Econ. Pêche Obsko-Tazovsk.), I, 3, 65 pp. Toboljsk (1935). **b - 1150**

**Kamohara T.** - On the *Owstoniidae* of Japan [*Owstoniidae Japonicae*]. 4 figs., Annot. Zool. Jap., XV, 1, 130-138. Tokyo (1935). **b - 1151**

Description of 4 Japanese spp. of *Owstoniidae*, two of which are new: *O. japonica* n. sp. and *O. taenisoma* n. sp.

**Kendall W. C.** - The Salmon Family. Part 2: The Salmons [*Familia Salmonidarum. Pars II*ª. *Salmones*]. 11 pls., Mem. Boston Soc. Natur. Hist., IX, 1, 166 pp. Boston (1935). **b - 1152**

The following New England Salmonoid families are studied on the basis of their comparative anatomy: *Salmonidae, Coregonidae, Argentinidae* and *Osmeridae*. *Salmo salar* L. and *S. sebago* Girard are especially dealt with. Habitat, feeding habits, anadromy, life history etc. Angling in New England.

**Kimura K.** - On the Death and Oxygen Consumption of Sardine in Confinement [*De morte et oxygeni consumptione in sardina in captivitate*]. (In Jap., Engl. Summ.). Journ. Imp. Fish. Exp. Stat., VI, 239-280. Tokyo (1935). **b - 1153**

**Kirpischnikov V. S.** - Biologisch- systematische Zusammenfassung der Studien über *Osmerus eperlanus* des Weissen Meeres, der Tscheskaia Bai und des Flusses Petschora [*Studium biologicum-systematicum compendiosum de specie « Osmerus eperlanus » Maris Albi, Bajae* Tscheskaia *et fluminis* Petschora]. (In Russ., Dtsch. Rés.). 61 Tab., Trud. Vses. Naukhn. issl. Inst. rybn. choz. u okeanogr., II, 103-104. (?) (1936). **b - 1154**

**Kuragami M. & Kawana T.** - Sun-spots and Breeding as well as Yield of the Herring, *Clupea pallasii* Cuvier & Valenciennes [*Maculae, cultura, valor oeconomicus speciei « Clupea pallasii »*]. (In Jap., Engl. Rés.). 2 graph. figs., 1 tabl., Bull. Jap. Soc. Scient. Fish., V, 2, 93-94. Tokyo (1936). **b - 1155**

The results of age determinations from 1910 to 1930 show that the breeding of *Clupea pallasii* in Hokkaidô is poor without exception in the year of either maximum or minimum sun-spots and has a peak in each intermediate period, while the 65 years' statistics show that in extreme cases of sun-spots the yearly catch often is unusually rich or poor. (A. A.).

**Le Gall J.** - The Present State of Knowledge concerning the Origin and Distribution of Herring Populations in Western European Waters [*Quae adhuc novimus de origine et distributione populationum Aringorum in aquis viventium Europae occid.*]. (French text). Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 15-18. Copenhague (1936). **b - 1156**

Classification des différentes concentrations d'hareng de l'Atlantique Nord Est et du Mer du Nord et le Baltique basée sur la moyenne vertébrale. Caractéristiques.

**Le Gall J.** - Le Tassergal ou Blue Fish (*Pomatomus saltatrix* Lacépède = *Temnodon saltator* Linné). Résumé des connaissances acquises sur la biologie de ce poisson [« *Pomatomus saltatrix* » Lacépède = « *Temnodon saltator* » Linné. *Compendium notitiarum biologicarum horum Piscium*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., CI, 3ème partie, 4, 1 p. Copenhague (1936). **b - 1157**

Apparitions et disparitions régulières des bancs du Blue Fish.

**Legendre R.** - Quelques Poissons observés à Concarneau depuis 1930 [*Pisces in* Concarneau *observati A. 1930*]. Bull. Lab. Marit. Saint-Servan, XIV, 28. Rennes (1935). **b - 1158**

*Oxyrhina Spallanzanii* Bp., *Centrina Salviani* Risso, *Tetrapturus Belone* Rafinesque, *Trichiurus lepturus* L., *Naucrates ductor* (L.), *Auxis Rochei* Risso, *Arnoglossus imperialis* (Rafinesque).

**Lin S. Y.** - Notes on Hair Tails and Eels of China [*Notae de Trichiuridis et Muraenidis Sinensibus*]. (In Engl., Chin. Summ.). 5 figs., 1 table, Bull. Chekiang Prov. Fish. Exp. Stat., II, 5, 1-16. Tinghai, China (1936). **b - 1159**

Diagnosis, distribution, peculiar characteristics of the *Trichiuridae* and *Muraenidae* of China comprising the following species: *Trichiurus japonicus, T. savala,* and *T. muticus, Muraena bengalensis, M. japonica,* and *M. mauritiana.*

**Macfarlane P. R. C.** - Salmon of the River Nith 1935 [*Salmones in flumine* Nith]. 7 tabl., Fish. Scotl. Salmon Fish., 1936, III, 1-16. Edinburgh (1936). **b - 1160**

Age groups, smolt ages, average sizes, relationship of weight to length, calculated lengths, growth, erosion of the scales due to their stay in fresh water.

**Madison H. L.** - Florida Fishes [*Pisces ad* Florida *pertinentes*]. Pocket Natur. Hist., No. 5, Zool. Ser. No. 2. Cleveland Mus. Natur. Hist. Cleveland, Ohio (1936). **b - 1161**

**Markun M. J.** - *Chalcalburnus chalcoides aralensis* (Berg). Die Materialien zur Kenntnis ihrer Biologie [*Res collectae ad biologiam studendam speciei « Chalcalburnus chalcoides aralensis »*]. (In Russ.). 5 Abb., 6 Tabl. a. T., Rep. Aral-Sea Div. Inst. Mar. Fish., IV, 5-73. Aralsk (1935). **b - 1162**

Systematisches. Verbreitung. Laichewanderungen. Laichen. Fang. Wachstum. Nahrung. Industrie. Schlussfolgerungen. Tabellen über Fortpflanzung, Wachstum, Fang und Temperatur des Wassers.

**Matsubara K.** - Studies on the Scorpaenoid Fishes of Japan. II. Statistical Examinations on *Sebastodes inermis* (C. et V.) [*Scorpaenoidea Japonica. II Studia statistica de specie « Sebastodes inermis » (C. et V.)*]. (In Jap., Engl. Summ.). Bull. Jap. Soc. Scient. Fish., IV, 4, 217-223. Tokyo (1935). **b - 1163**

On hand of biometrical measurements of many individuals of a group of Japanese Scorpaenoid fishes, which have been considered as belonging to four different species, i. e. *Sebastodes inermis, S. ventricosus, S. güntheri,* and *S. tokionsis,* author concludes that the whole material represents one single species, *S. inermis.*

**Matsubara K.** - A New Bramid Fish found in Japan [*Piscis novus ex Bramidis in Japonia repertus*]. 1 fig., Bull. Jap. Soc. Scient. Fish., IV, 5, 297-300 (Contr. Zool. Lab. Imp. Fish. Inst. No. 41). Tokyo (1936). **b - 1164**

*Taractes platycephalus* sp. nov. found in Sagami Bay and key to the species *Taractes.*

**Matsubara K.** - A Review of two Genera of the Japanese Sculpins, *Ereunias* and *Marukawichthys* with special Reference to their Systematic Positions [*Conspectus duorum generum Japonicorum « Ereunias » et « Marukawichthys ». Agitur particulatim de eorum positionibus in systematica*]. 8 figs., Journ. Imp. Fish. Inst., XXXI, 2, 97-114. Tokyo (1936). **b - 1165**

Detailed descriptions of and comparison between *Ereunias grallator* and *Marukawichthys ambulator*. Discussion on their systematic positions.

**Matsubara K.** - Biometry of two Species of Japanese Cardinalfishes with special Reference to their Taxonomy [*De biometria Piscium duarum specierum generis Amiidarum. Agitur particulatim de eorum taxonomia*]. 6 figs., Journ. Imp. Fish. Inst., XXXI, 2, 119-130. Tokyo (1936). **b - 1166**

Necessity of a revision of this group, especially the deep-sea fishes, on the basis of biometry. Biometric data expressed in graphs. Emendations of the genera *Epigonus*, *Hynnodus*, *Scepterias* and *Parahynnodus* suggested to form only one genus *Epigonus*.

**Mazzarelli G.** - Programmi vecchi e nuovi per lo studio del Tonno. (*Thunnus thynnus* [L.]) [*Praescriptiones antiquae et recentes pro studiis speciei « Thunnus thynnus »*]. Mem. Biol. Mar. e Oceanogr., III, Append., 1-19. Messina (1935). **b - 1167**

Esame critico delle ricerche eseguite in seguito al programma del 1912 sulla biologia del Tonno, con il fine di « rendere possibile un aumento del prodotto della sua pesca », ricerche che l'A. ritiene fondate su basi non rigorosamente scientifiche e su materiale raccolto senza controllo e perciò non rispondenti allo scopo prefisso. Anche il nuovo programma appare all'A. insufficiente e con non lievi manchevolezze.

**Mazzarelli G.** - Gli studi sulla biologia dei pesci d'importanza economica, eseguiti nell'Istituto di Zoologia della R. Università di Messina e nell'annesso R. Osservatorio di Pesca Marittima [*Studia de biologia Piscium magni momenti oeconomici in Instituto pro zoologia Regiae Universitatis Messanae et in conjuncto Observatorio pro piscatione maritima*]. Atti Soc. It. Progr. Sc., Riun., 24, IV, 1, 35-45. Roma (1936). **b - 1168**

La relazione tratta: le correnti dello Stretto di Messina e gli animali abissali, le razze locali delle acciughe, le razze locali e la biologia della Costardella, la biologia del Tonno, le migrazioni gamiche dei Cefali e delle Anguille, la biologia del pesce spada, la biologia delle anguille del lago di Ganzirri e dello Stretto di Messina.

**McC. Mottley C.** - The Introduction of Brown Trout (*Salmo trutta* L.) into British Columbia [*Introductio speciei « Salmo trutta » in Columbiam Britannicam*]. Proc. 5th. Pacific Congr., 1933, 5, 3801-3803. Univ. Toronto Press. Toronto (1934). **b - 1169**

On the results of planting of Brown Trouts from the east coast of Vancouver in the Cowichan and little Qualicum rivers. Tendency of Rainbow Trouts to supplant the browns and explanations for this. The brown trout a danger for other young fishes. Comparison with *S. clarki* and *S. gairdneri*.

**McC. Mottley C.** - A Biometrical Study of the Kamloops Trout of Kootenay Lake, *Salmo kamloops* Jordan [*Studium biometricum speciei « Salmo Kamloops » in lacu* Kootenay]. 6 figs., 8 tables, Journ. Biol. Bd. Canada, II, 4, 359-377. Toronto (1936). **b - 1170**

A study made on 216 specimens of Kamloops trout ranging from 10 cm. to 75 cm. in length. Twenty-four characters commonly used in the description and differentiation of the taxonomic groups of salmonoid fishes were investigated and a biometrical analysis of the differences due to size and sex is presented. The results indicate that the characters investigated must be used with caution in the taxonomic study of fishes. In comparing specimens of trout for taxonomic purposes individuals of the same size, age, sex, and degree of maturity should be used if possible. The general conclusions can be applied with a reasonable degree of assurance to closely related races and species of trouts (from A.).

**Menzies J. M.** - Sea Trout and Trout [*Tructa marina et Tructae*]. 16 pls., 2 maps, 230 pp. Arnold E. & C. London (1936). **b - 1171**

The A., who has a wide knowledge of all the Scottish Waters, illustrates the life-history of two races, the spawning, the determination of age from the scales, the food, the marking experiments, the diseases, the seasonal migrations.

**Mukerji D. D.** - Notes on Some Rare and Interesting Fishes from the Andaman Islands, With Descriptions of Two New Freshwater Gobies [*Notae de Piscibus raris et notandis ab insulis* Andaman *provenientibus. Gobiidae duae novae in aqua dulci viventes describuntur*]. 2 figs., 1 pl., Rec. Ind. Mus., XXXVIII, 3, 259-277. Calcutta (1936). **b - 1172**

Description of the freshwater and the littoral marine fish-fauna of the Andaman Islands, divided in the three following groups according to their respective habitats, i. e.: I. Muddy of rocky streams, II. Coral reefs, III. Pebbly shore. From the described forms *Raogobius andamanicus* g. et sp. nov., and *Vaimosa koumansi* sp. nov. are new to science.

**Myers G. S.** - A new Name for the Alaskan Cottoid Fish *Ulca marmorata* (Bean.) [*Nomen novum proponitur speciei « Ulca marmorata »*]. Copeia, I, 44. New York (1934). **b - 1173**

*Ulca bolini* (*Hemitripteras marmoratus* Bean, preocc.).

**Myers G. S.** - A New Genus of Opisthognathid Fishes [*Piscium genus novum ex Opisthognathidis*]. 1 fig., Rep. Coll. Obt. Ist Johnson-Smithsonian Deep-Sea Exped. Puerto Rican Deep, Smiths. Miscell. Coll., XCI, 23, 1-5. Washington D. C. (1935). **b - 1174**

After a brief examination of the scattered literature and some confusing points in the classification of the group of *Opisthognathidae*, author gives a description and diagnosis of a new genus, *Lonchistium*, and species *L. lemur* n. sp.,

**Nakamura H.** - On the Two Species of the Tresher Shark from Formosan Waters [*De duabus speciebus ex Alopiidis in aquis insulae* Formosa *viventibus*]. (In Jap.) 3 pls., Mem. Fac. Sc. Agricult., Taihoku Imp. Univ., XIV, 1, 1-6. Taihoku (1935).

( — ) Trans. Nat. Hist. Soc. Formosa, XXV, 142, 220-225. Hokkaido. **b - 1175**

Description and diagnosis of two new species of *Alopiidae*, *Alopias pelagicus* n. sp., and *A. profundus* n. sp. from the Pacific; both species have been identified with the Atlantic species of *A. vulpes*.

**Nall G. H.** - Sea-Trout of the Kyle of Sutherland District, 1934-35 [*Tructa marina regionis* Kyle *in districtu* Sutherland]. 6 pls., 9 tables o. t., Fish. Bd. Scottl. and Salmon Fish., I, 3-28. Edinburgh (1936). **b - 1176**

Results of scale-reading of the sea-trout caught in the Kyle of Sutherland which may be described as a narrow channel of tidal and semi-tidal water extending from the junction of the Oykell and the Cassley near Rosehall and in which four rivers enter. Marking operations of the catches of sea-trout from Bonar Bridge; commercial nets and the parr and sea-life of the trout.

**Nall G. H.** - Sea-Trout of the Laxford System (Loch Stack and Loch More) [*Tructa marina quae pertinet ad systema* Laxford]. 4 pls., 9 tables o. t., Fish. Bd. Scottl. and Salmon Fish., II, 3-23. Edinburgh (1936). **b - 1177**

Account of the results of scale-readings and measurements carried out in 1934-35: I. The Laxford System and its sea-trout. - II. The whole collection: Parr life and Sea life. - III. Netting and marking operations, January 1925, and Rod-captured fish, 1934-35.

**Nall G. H.** - Notes on Sea-Trout from the Dee Tidal Nets, Aberdeen, 1935 [*Notae de tructis marinis captis retium auxilio quae aestuoso tempore ad accessum fluminis* Dee *posita sunt*]. 4 pls., Fish. Bd. Scottl. and Salmon Fish., 1936, IV, 1-22. Edinburgh (1936). **b - 1178**

Number and percentage, average weight, ratio of maiden to mature fish, average lengths in the two largest age groups month by month. Spring fish. Parr life. Sea life. Condition. Heaviest and oldest fish.

**Neuhaus E.** - Studien über das Stettiner Haff und seine Nebengewässer. IV. Untersuchungen über die Plötze [*Studia circa Sinum* Stettiner *eiusque aquas propinquas. IV. Investigationes de specie « Leuciscus rutilus »*]. 12 Abb., Tab., Ztschr. f. Fish., XXXIV, 1, 63-111. Neudamm & Berlin (1936). **b - 1179**

Die Plötze ist der wichtigste Wirtschaftsfisch des Stettiner Haffs und seiner Nebengewässer. Ernährung; Wachstum; Laichreife, Laichzeit und Laichstellen; Wanderungen; Fanggeräte; wirtschaftliche Bedeutung. Mindestmass. Bibl.

**Nichols J. T.** - On *Decapterus scombrinus* (Valenciennes) [*De specie « Decapterus scombrinus »*]. Amer. Mus. Nov., 835, 1-6. New York (1936). **b - 1180**

General remarks on *Decapterus*-forms. Key to synonyms and descriptions of 9 species.

**Nichols J. T. & Firth F. E.** - A New Triacanthid Fish and other Species from Deep Water off Virginia [*Piscis novus Triacanthidis aliaeque species a maris profunditatibus provenientes apud Virginiam*]. 1 fig., Amer. Mus. Nov., 883, 1-5. New York (1936). **b - 1181**

*Triacanthodes zebra* n. sp., *Polymixia nobilis* Lowe and *P. nobilis virginica* n. subsp. Description and remarks.

**Nichols J. T. & La Monte F. R.** - *Pagothenia*, a New Antarctic Fish [*« Pagothenia » piscis novus antarcticus*]. 1 fig., Amer. Mus. Nov., 389, 1-4. New York (1936). **b - 1182**

Description and field data of *Pagothenia antarctica* n. sp. belonging to the small collection of fishes brought back by the second Antarctic Expedition and deposited in the American Museum of Natural History. Some remarks on the other fishes of the collection.

**Norman J. R.** - The Carangid Fishes of the Genus *Decapterus* Bleeker [*Pisces Carangidi ad genus « Decapterus » pertinentes*]. 4 figs., Ann. & Mag., Natur. Hist., XVI, 92, 252-264. London (1935). **b - 1183**

Description of 15 recognized spp. with key, syn., and distribution. *Decapterus longimanus* n. sp.

**Norman J. R.** - Notes on the Fishes of the Family *Scorpaenidae* recorded from the British Coasts, with a Description of a New Species [*Notae de Piscibus ad familiam « Scorpaenidae » pertinentibus, in litoribus Britannicis repertis. Descriptio novae speciei*]. 1 fig., Proc. Zool. Soc. London, 3, 611-614. London (1935). **b - 1184**

*Helicolenus microphthalmus* n. sp. Key to 6 spp. of British *Scorpaenidae*.

**Norman J. R.** - A History of Fishes. Second Issue [*Piscium historia. Editio secunda*]. xv + 463 pp., 8 pls. Ernest Benn, Ltd. London (1936). **b - 1185**

Encyclopedic work on fish-life for specialists and laymen.

**Norman J. R.** - A New Fish of the Genus *Clupea* from Chile [*Piscis novus ad genus « Clupea » pertinens a regione Chilena proveniens*]. Ann. & Mag. Natur. Hist., XVII, 100, 491-492. London (1936). **b - 1186**

*Clupea bentincki* n. sp. Key to 10 spp. of *Clupea*.

**Norman J. R.** - Coast Fishes. The South Atlantic [*Pisces litorei. Oceanus Atlanticus Merid.*]. Discovery Rep. Discov. Comm., Colon. Off., XII, Part I, 1-58., Cambridge Univ. Press. Cambridge (1936). **b - 1187**

**Osaki Masao** - The Identification of the Species of *Oncorhynchus* in the East Coast of Kamtchatka [*Identificatio specierum « Oncorhynchus » in litoribus orientalibus regionis* Kamtchatka]. (In Jap.; Engl. Rés.) 3 tabl., Bull. Jap. Soc. Scient. Fish., IV, 5, 321-324. Tokyo (1936). **b - 1188**

Determination of the species of *Oncorhynchus* caught south of Cape Kronotskii. Scientific names corresponding to fish captured: *O. nerka*, *O. keta*, *O. kisutch*, *O. gorbuscha*, *O. tschawytscha*.

**Palmer R. H.** - Ocean Sunfish in Habana Waters [*« Masturus lanceolatus » in aquis insulae* Habana]. Science, LXXXIII, 2164, 597. New York (1936). **b - 1189**

The second record of this species having been found in Habana waters on March 24, 1936. Description.

**Parrott A. W.** - The Marine Cockabully (*Tripterygion varium* Forster) Observations on its Variability, Age, and Rate of Growth [*Species marina « Tripterygion varium ». Observationes de eius variabilitate, aetate, velocitate accretionis*]. N. Z. Journ. Sc. Technol., XVIII, 31-32. Wellington (1936). **b - 1190**

**Pellegrin J.** - Poissons de Madagascar recueillis par M. Catala. Description d'un *Sicydium* nouveau [*Pisces Madagascarienses collecti a* M. Catala. *Descriptio novae speciei ad « Sicydium » pertinentis*]. Bull. Soc. Zool. Fr., LX, 69. Paris (1935). **b - 1191**

**Pellegrin J. & Chevey P.** - Poisson nouveau du Tonkin appartenant au genre *Sinogastromyzon* [*Pisces novi regionis* Tonkin *ad genus* « *Sinogastromyzon* » *pertinentes*]. Bull. Soc. Zool. Fr., LX, 232. Paris (1935). **b - 1192**

**Petit G.** - Sur la lèvre supérieure et la valvule buccale de *Gobius* (Awaous) *Louveli* G. Petit [*De superiori labro et valva buccali speciei* « *Gobius Louveli* »]. Bull. Mus. Nat. Hist. Natur., VIII, Sér. 2, 6, 493-497. Paris (1936). **b - 1193**

Examen histologique des lames épithéliales de la lèvre supérieure et de la valvule buccale de la nouvelle espèce de Gobius de Madagascar. L'A. a pu déceler dans le sommet des papilles de la valvule buccale la présence d'organes sensoriels.

**Phillipps W. J.** - Sharks of New Zealand: 4. [*Squali ad Novam Zelandiam pertinentes*]. 3 figs., New Zealand Journ. Sc. a. Technol., XVI, 4, 236-241. Wellington (1935). **b - 1194**

*Notorhynchus macdonaldi, Prionace mackiei* n. sp. and *Lamna whitleyi* n. sp. Systematic study.

**Pokrovski S.** - La morue polaire « saika », *Boreogadus saida* [*Merluccius polaris* « *Boreogadus saida* »]. Za Rybn. Ind. Sev., 3, 28-29. Leningrad (1936). **b - 1195**

**Pozzi y Bordale** - Cuadro de los peces marinos de Argentina [*Tabula Piscium marinorum ad regionem Argentinam pertinentium*]. Anales Soc. Cient. Argentina, CXX, 1-4. (1935). **b - 1196**

**Raitt D. S.** - The Haddock Stocks of the North-East Atlantic, 1916-1935 [*Turmae a specie* « *Gadus aeglefinus* » *formatae in regione orientali Oceani Atlantici ab A. 1916 ad A. 1935*]. 7 figs., 17 tabl., Fish. Scott. Scient. Invest. 1936, I, 1-32. Edinburgh (1936). **b - 1197**

Evidence of geographically separate populations. Assessments of the relative numerical strengths of different age-classes. Possibility of forecasting the chief sources of Haddock supplies.

**Reid E. D.** - Two New Fishes of the Families *Dactyloscopidae* and *Clinidae* from Ecuador and the Galapagos [*Pisces duo novi ad familias Dactyloscopidas et Clinidas pertinentes ab* Ecuador *et insulis* Galapagos *provenientes*]. 2 fig., Copeia, 4, 163-166. New York (1935). **b - 1198**

*Cokeridia fimbriata* n. sp. off Cape Elena, Ecuador and *Odontoclinus dendriticus* n. sp. Galapagos. Related genera are discussed.

**Reid E. D.** - Revision of the Fishes of the Family *Microdesmidae*, with Description of a new Species [*Recognitio Piscium ad familiam Microdesmidarum pertinentium et descriptio cuiusdam novae speciei*]. 12 figs., 1 pl., Proc. U. S. Nat. Mus., Smithson. Inst., CXXXIV, 3002, 55-72. Washington (1936). **b - 1199**

Characters of the genus *Microdesmus* Günther, key to the species of this genus and their description. Systematic position of a specimen of *Microdesmus* collected on the Pacific coast of the Isthmus of Panama: *M. dipus*, most closely related to *M. hildebrandi*, n. sp.

A. shows that *Cerdale* Jordan and Gilbert and *Leptocerdale* Weymouth are without generic value merely representing extreme specific variations within the genus *Microdesmus*.

**Rollefsen G.** - Torskens alder, kønnsmodning, dødelighet og vekst [*Aetas, maturitas sexualis, mortalitas, accretio speciei* « *Gadus callarias* »]. (In Norw.) 2 graph. figs., Naturen, LX, 3, 74-83. Bergen (1936). **b - 1200**

Two different races of *Gadus callarias* are distinguished along the Norwegian coast with morphological differences, especially with regard to the structure of the otoliths. Possibility to conclude age and times of reproduction from the otoliths. Reproduction: diminution of the producing classes and diminution of the stock; relation between growth and reproduction.

**Roxas H. A.** - Rediscovery of *Biat luzonicus* Seale (*Gobiidae*) [*De reinventa specie* « *Biat luzonicus* »]. Copeia, I, 19-20. New York (1935). **b - 1201**

Description of a specimen from Mindoro.

**Runnström S.** - Investigations on Icelandic Herrings in 1929-35 [*Investigationes in Aringos ad Islandiam pertinentes A. 1929-35*]. 2 figs., 5 tables, Cons. Expl. Mer, Rapp. Pr.-Verb., XCIX, Rapp. Atlant., 1933-35, IV, 3-11. Copenhague (1936). **b - 1202**

Summary of our present knowledge concerning the Icelandic herrings, the localities and age of capture, the spawning periods, the age composition of spring spawning herrings, the number of vertebrae, the measurements of the scales, and comparison between the Icelandic and the Norwegian herrings.

**Runnström S.** - The Distribution of the Atlanto-Scandian Spring Herring [*Distributio aringorum verninorum regionis Atlanto-Scandiae*]. 1 map, 2 tabl., Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 24-28. Copenhague (1936). **b - 1203**

On the designation of « the Atlanto-Scandian Spring Herring ». Distribution of spawning places (shown on a map); mean number of vertebrae; age distribution.

**Russell F. S.** - The Seasonal Abundance of the Pelagic Young of Teleostean Fishes in the Plymouth Area. Part III. The Year 1935, with a Note on the Conditions as shown by the Occurrence of Plankton Indicators [*De abundantia pro anni tempore juvenum pelagicorum ad Pisces Teleosteos pertinentium in area* Plymouth. *Pars IIIª: A. 1935 cum nota de condicionibus depromptis ab apparatibus indicatoribus substantiae planctonicae*]. 2 tabl., 4 figs., Journ. Mar. Biol. Ass., XX, 3. 595-604. Plymouth (1936). **b - 1204**

The year 1935 has been the poorest yet recorded and there is a possibility that this scarcity of young fish may be correlated with the predominance of *Sagitta setosa* or Channel water. The changes in abundance may also be regarded as nearing the dimensions of the major fluctuations known for certain food fish.

**Scharrer E.** - Der Zitterwels « *Malopterurus electricus* ». 2 Abb., Natur u. Volk, LXVI, 4, 166-168. Frankfurt a. M. (1936). **b - 1205**

Beschreibung der auf der afrikanischen Westküste vorkommenden Art, *Malopterurus electricus* Lacépède, mit besonderer Berücksichtigung ihres elektrischen Organes.

**Schmit W.** - Ueber das Auftreten und die Verbreitung einiger Stockfischgattungen im Nördlichen Teil des Stillen Ozeans [*De praesentia et distributione aliquorum generum familiae Gadidarum*

*in parte septentr. Oceani Pacifici*]. (In russ. Dtsch. Rés.). 1 Karte, Zool. Journ., XV, 1, 175-183. Moskva (1936). **b - 1206**

Auf Grund eines Vergleiches der Entwicklungshöhe der Stockfischfauna des Stillen und des Atlantischen Ozeans und der Daten über das Vorkommen tertiärer Stockfische im Atlantischen Ozean, nimmt Vf. an, dass die Stockfischgattungen, die sich durch drei Dorsal- und zwei Analflossen auszeichnen, sich während des Tertiärs im nördlichen Polarbecken entwickelt haben und erst später in den Stillen Ozean hervorgedrungen sind. Er berichtet auch über das Verhältnis zwischen Vereisung und Vordringen der Stockfischgattungen.

**Schnakenbeck W.** - The Present State of Knowledge concerning the Origin and Distribution of Herring Populations in Western European Waters [*Quae adhuc novimus de origine et distributione populationum aringorum in aquis europaeis occid.*]. (German Text.). Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 28-31. Copenhague (1936). **b - 1207**

Klarlegung der Begriffe « Rasse » und « Population » und die damit zusammenhängenden Untersuchungen. Bedeutung der morphologischen Verschiedenheiten gegenüber den biologisch-physiologischen Erscheinungen beim Feststellen einer Rasse. Bedeutung der Erblichkeit der Unterschiede in den Merkmalen. Notwendigkeit das Studium auf einen anderen Grund zu legen: Erforschung der natürlichen Fortpflanzungsgemeinschaften und Erforschung des Reifezyklus des Herings.

**Schultz L. P.** - Species of Salmon and Trout in the Northwestern United States [*Salmones et Tructae in Americae nordoccidentalis Statibus Foederatis*]. Proc. 5th. Pacific Sc. Congress 1933, 5, 3777-3782, Univ. Toronto Press. Toronto (1934). **b - 1208**

Five different series are recorded subdivided in species and varieties and a key is given concerning except the usual characters also the number of scales above and below the lateral line and the number of vertebrae. Thus, A. distinguishes 5 spp. of *Oncorhynchus*, 2 *Salvelinus*, *Cristivomer*, the brown trout, and 5 forms of *Salmo*. New name suggested for the steelhead: *Salmo gairdnerii gairdnerii*.

**Scordia C.** - Intorno alla accertata presenza dello *Scomberesox saurus* (Walb.) nel Mediterraneo [*De certiore praesentia speciei « Scomberesox saurus » in Mediterraneo*]. Boll. di Zool., VII, 5/6, 217-220. Napoli (1936). **b - 1209**

L'A. dimostra la presenza nel Mediterraneo dello *Scomberesox saurus* (Walb.), in base all'esame differenziale di questa specie atlantica con lo *Scomberesox rondeleti* Cuv. e Val. ritenuta unica specie mediterranea.

**Scott E. O. G.** - On a New Genus of Fishes of the Family *Galaxiidae* [*Piscium genus novum ad familiam Galaxiidarum pertinentium*]. 1 pl., 2 figs., Pap. & Proc. R. Soc. Tasmania 1934, 41-46. Hobart (1935). **b - 1210**

*Paragalaxias* n. gen., *P. shannonensis* n. sp.

**Sømme S.** - Vekst og nœring hos harr og ørret (*Thymallus thymallus* L. og *Salmo trutta* L.) En sammenlignende studie [*De accretione et nutricatione specierum « Thymallus thymallus » et « Salmo trutta ». Studium comparatum*]. (In Norw., Engl. Rés.). 8 figs., 11 tabl., Nyt. mag. f. naturvid., LXXV, 187-218. Oslo (1936). **b - 1211**

Variation in length and age composition. Comparison between the growth of trout and grayling, calculated lengths in cm. Differences in growth between male and female. Sexual maturity. Comparison between composition of stomach contents of trout and grayling.

**Souché G.** - Note sur l'habitat de *Pleuronectes unimaculatus* Bonap. [*Habitat speciei « Pleuronectes unimaculatus »*]. Bull. Soc. Biol. Arcachon, XXXIII, 1, 107-108. Bordeaux (1936). **b - 1212**

La rareté du *Pleuronectes unimaculatus* est due surtout au fait que ce poisson, de très petite taille, n'est pas recherché pour la consommation. Il est fréquent dans la région de la Marche presque au voisinage de Start-Point.

**Suvorov E. K.** - New Species of Ray from the Okhotsk Sea: *Raja violacea* sp. n. [*Rajae species nova in Mari Okhotsk: « Raja violacea »*]. (In Russ. & Engl.). 1 fig., Bull. Acad. Sc. URSS, Cl. Sc. Math. & Natur., VII, 3, 431-433. Moscou Léningrad (1935). **b - 1213**

Diagnosis of a new species of Ray captured along the western shore of the Okhotsk Sea in July, 1933.

**Suvorov E. K.** - A New Genus and Two New Species of Fishes of the Family *Zoarcidae* from the Okhotsk Sea [*Genus novum et duae species novae Piscium ad familiam « Zoarcidae » maris Okhotsk pertinentium*]. (In Russ. & Engl.). 3 figs., Bull. Acad. Sc. URSS, Cl. Sc. Math. & Natur., VII, 3, 435-440. Moscou-Léningrad (1935). **b - 1214**

Description and diagnosis of *Bothrocarina* g. n., *P. nigrocaudata* sp. n. and *Lycodes brunneofasciatus* sp. n.

**Svetovidov A. N.** - *Lepidion schmidti*, eine neue Fischart [*« Lepidion schmidti » species nova Piscium*]. 1 Abb., Zool. Anz., CXIII, 11/12, 266-269. Leipzig (1936). **b - 1215**

Beschreibung, verwandte Arten (Vergleich auf 2 Tabellen dargestellt). Alle zur Gattung *Lepidion* gehörenden Arten zeichnen sich durch ein sehr seltenes Vorkommen aus, was ohne Zweifel mit dem Tiefseeleben dieser Fische zusammenhängt.

**Tåning V. Å.** - The Herring Stocks of the Faroes, Iceland and Greenland [*Turmae aringorum in insulis Faroe, Islandia et Groenlandia*]. Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 32-33. Copenhague (1936). **b - 1216**

Review of work carried out by several researchers concerning racial investigations, spawning and occurrence of postlarvae.

**Tåning V. Å.** - Young Herring and Sprat in Faroese Waters [*Aringi juvenes et species « Clupea sprattus » in aquis insularum Faroe*]. (In Engl., Dan. Rés.). 11 figs., tabl., Medd. Komm. Danm. Fisk.- & Havunders., ser. Fiskeri, X, 3, 1-28. København (1936). **b - 1217**

Separation of the two species. Spawning-places and periods; influencing factors. Number and distribution of the fry.

**Taranetz A.** - Quelques variations dans la systématique des Poissons de l'Extrême Orient Soviétique avec annotations sur leur propagation [*Variationes in systematica Piscium in extremis Orientalibus regionibus viventium cum notis de eorum propagatione*]. (En russe-rés. angl.). Vestn. Daljne-Vost. Fil. Akad. Naouk U.R.S.S., 13, 89-101. Vladivostok (1935). **b - 1218**

**Taranetz A. J.** - Courte revue des genres de la famille *Blennidae* apparentés avec *Stichaeus* de la Mer de Barents, d'Okhotsk et du Japon [*Con-*

*spectus brevior generum familiae « Blennidae » affinitate conjunctae cum « Stichaeus » marium* Barents, Okhotsk *et maris Japonici*]. (En russe). Dokl. Akad. Naouk (Rapp. Acad. Sc. URSS), I (X), 3 (8), 141-144. Moskva (1936). **b - 1219**

**Taranetz A. J. & Andriashev A. P.** - Vier neue Fischarten der Gattung *Lycodes* Reinh. aus dem Ochotskischen Meer [*Species quattuor novae ad genus « Lycodes » Maris* Ochotsk *pertinentes*]. 7 Abb., Zool. Anz., CXII, 9/10, 242-253. Leipzig (1935). **b - 1220**

*Lycodes jenseni* n. sp., *L. soldatovi* s. sp., *L. brevicauda* n. sp. und *L. macrolepis* n. sp.

**Tester A. L.** - Some Results of the British Columbia Herring Investigation and their economic Bearing [*Resultatus ex investigationibus de Aringis in Columbia Britannica eorumque momentum oeconomicum*]. 3 graph. figs., Rep. Commiss. Fish. for 1935, 74-80. Victoria, B. C. (1936). **b - 1221**

Review of and discussion on two papers of A. presented for publication in the Journal Biol. Bd Canada in June 1936 and dealing with local populations of herring and with the length and age composition of the runs based on the results of six years of investigation.

**Thompson W. F. & Van Cleve R.** - Life History of the Pacific Halibut. 2. Distribution and early Life History [*Cyclus vitalis quoad Hippoglossum Oceani Pacifici. II. Distributio et priora vitae stadia*]. 72 figs., 28 tabl., Rep. Int. Fish. Comm., 9, 1-184. Seattle, Wash. (1936). **b - 1222**

The distribution and drift of the eggs and larvae confirm the results of tagging, racial and growth investigation of the adults in indicating the separation of two main stocks of halibut. The study of the conditions determining the distribution of the adults has made it possible to estimate the probable presence or absence of halibut in commercial quantity in regions not yet exploited and to predict the limits of expansion of the North Pacific halibut fishery. Knowing this distribution and the ocean currents which carry the young, it is possible to determine approximately the interdependence of the banks and to say that the supply of eggs and larvae for the present fishery must come from banks at present known and exploited. (A.) - 2 Appendices on net hauls and drift bottle experiments.

**Tibby R. B.** - Notes on the Ocean Sunfish, *Mola mola* [*Notae de specie « Mola mola » oceanica*]. 1 fig., Calif. Fish. & Game, XXII, 1, 49-50. Sacramento (1936). **b - 1223**

Short note including some remarks on anatomical features.

**Tomiyama Itirô** - *Gobiidae* of Japan [*Gobiidae ad Japoniam pertinentes*]. 44 figs., Jap. Journ. Zool., Trans. & Abstr., VII, 1, 37-112. Tokyo (1936). **b - 1224**

Revision of 100 species of *Gobiidae*, most of which are marine. Indication of synonymies and localities. Bibl.

**Toschi A.** - Nuova cattura di un grande esemplare di *Orthagoriscus mola* L. sul littorale dell'Alto Adriatico [*Captura nova magni cuiusdam exemplaris speciei « Orthagoriscus mola » in litoribus alti Hadriatici*]. 2 fig., Boll. Pesca, Piscicult. & Idrobiol., XII, 4, 325-327. Roma (1936). **b - 1225**

Descrizione del plettognato arenato sulla spiaggia di Venezia. Cause che possono aver influito sulla cattura di questo esemplare, specialmente particolari condizioni meteorologiche. Singolari aspetti della biologia di questa specie.

**Uno M.** - *Germo germo* (Lacépède) in the Waters East of Nozima Promontory, Tiba Prefecture. (Prel. Rep. II) [*Species « Germo germo » in aquis orientalibus apud promunturium* Nozima, *in Praefectura* Tiba]. (In Jap., Engl. Rés.). 2 tabl., 2 figs., Bull. Jap. Soc. Scient. Fish, V, 4, 235. Tokyo (.1639) **b - 1226**

Age determinations, length and weight of 200 individuals of *Germo germo*.

**Uno M.** - *Germo germo* (Lacépède) in the Waters East of Nozima Promontory Tiba Prefecture (Rep. I) [*« Germo germo » in aquis orientalibus apud promunturium* Nozima, *in Praefectura* Tiba]. (In Jap.; Engl. Rés.). 3 tabl., Bull. Jap. Soc. Scient. Fish., V, 307-309. Tokyo (1936). **b - 1227**

Body lengths and weights were measured on 1500 samples of *Germo germo* and the age was determined by counting the winter rings on vertebra. Composition of shoals, age, body lengths and weights for each age group.

**Vladykov V. D.** - Some Unreported and Rare Fishes from the Coast of Nova Scotia [*Pisces rari a litoribus Novae Scotiae provenientes*]. Proc. Nova Scotian Inst. Sc., XIX, 1, 1-8. Halifax, N. S. (1934 & 1935). **b - 1228**

Record of 22 marine fishes rarely found, and list of 10 forms not previously reported. The number of marine and anadromous fishes reported from the coast of this province now amounts to about 150 spp.

**Vladykov & Mc Kenzie** - The Marine Fishes of Nova Scotia [*Pisces marini Novae Scotiae*]. Figs., Proc. Nova Scotian Inst. Sc., XIX, 1. Halifax, N. S. (1935). **b - 1229**

Review of all the marine and anadromous fishes (151 species) found in the area between lat. 42° 15′ N. and 47° N. and between long 57° W. and 66° 45′ W. Key to the species.

**Weber M. & De Beaufort L. F.** - The Fishes of the Indo-Australian Archipelago. VII *Perciformes* [*Pisces archipelagi Indoaustraliénsis. VII Perciformes*]. 106 figs., XVI + 607 pp., Brill. Leiden (1936). **b - 1230**

This volume refers to the following families belonging to *Perciformes: Chaetodontidae, Toxotidae, Monodactylidae, Pempheridae, Kyphosidae, Lutjanidae, Lobotidae, Sparidae, Nandidae, Scienidae, Malacanthidae* and *Cepolidae*, and contains an artificial key to the Indo-Australian families of *Perciformes*.

Detailed description of every species, measure of length, eye, height, etc., count of the scales, fins, formulae, gillmembranes etc. Relation to distribution, habitat, nomina indigena and notes on varieties and synonyms.

**White E. G.** - Some Transitional Elasmobranchs connecting the *Catuloidea* with the *Carcharinoidea* [*De quibusdam Elasmobranchiatis quae Catuloidea cum Carcharinoideis colligant*]. 10 figs., 3 tabl., Amer. Mus. Nov., 879, 1-22. New York (1936). **b - 1231**

The object of this paper is to settle some disputed points as to the classification of some Catuloid species (*C. retifer, C. torazame, Halaelurus burgeri, Calliscyllium venustum, Atelomycterus marmoratus*) and 2 Carcharinoids (*Triakus scyllium* and *Carcharinus milbertij aponicus*) which, being very stable in phylogenetic characters, vary extremely in secondary structures. Comparisons between these species with regard to general form, nictitating fold, denticles, rostrum, pectoral fin skeleton, vertebral centra, spiral valves and heart valves. List of different characters. New classification.

**Whitehouse R. H. & Grove A. J.** - The Dissection of the Dogfish [*De dissectione speciei « Mustelus canis »*]. viii + 179 pp., Univ. Tutorial Press Ltd. London (1936). **b - 1232**

**Whitley G. P.** - More Ichthyological Miscellanea [*Notarum ichthyologicarum miscellanea*]. 6 figs., 1 pl., Mem. Queensl. Mus., XI, 1, 23-51. Brisbane (1936). **b - 1233**

The present paper may be regarded as a continuaton of the « Ichthyological Miscellanea » which appeared in the « Mem. », X, 1, 8, 1930 and contains a revised list of Queensland fishes, of which the following are new to science: *Hyalosprattus* subg. n., *Lomanetia* g. n., *Fodifoa* g. n., *F. fistulosa* sp. n., *Paradente Marshalli* sp. n., *Thunnus Nicolsoni* sp. n., *Ichthyscopus sannio* sp. n., *Sirembo everriculi* sp. n., *Australaphia* g. n., *A. annona* sp. n., *Cyprichthys* g. n.

**Wood H.** - Scottish Herring Race Investigations [*Investigationes in stirpes Aringorum in aquis Scotis*]. Diagr., Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 34-35. Copenhague (1936). **b - 1234**

The work begun in 1931 has now been completed proving that spring spawners and autumn spawners are identifiable from each other by significant differences in the number of vertebrae and keeled scales.

**Wood H.** - Race Investigations of the Herring Population of Scottish Waters [*Investigationes in stirpes Aringorum in aquis Scotis*]. 5 figs., 1 chart, Fish. Bd. Scott., Scient. Invest., III, 1-52. Edinburgh (1936). **b - 1235**

From these investigations it has been established that there are two main, quite distinct, spawning stocks or races which spawn at different seasons under different temperatures on different grounds: the spring spawners and the Scottish autumn spawners appear mixed together in the different areas described here. The importance of race work especially with regard to the keeled scales as a race character in the analysis of a mixed herring population.

**An.** - Der Kabeljau der Murmanküste [« *Gadus morrhua* » *ad litora regionis* Murman *pertinens*]. 3 Tab., Fischmarkt, IV, 12, 332-333. Cuxhaven (1936). **b - 1236**

Angaben von Länge, Mittelgewicht, Mittelgewicht der Leber und Fettprozent. Vergleich zwischen dem Kabeljau an Lofoten, Finmarken und an der Murmanküste.

**An.** - Ein Fisch mit Beinen [*Piscis cruribus praeditus*]. 3 Abb., Umschau, XL, 48, 947. Frankfurt a. M. (1936). **b - 1237**

Beschreibung des in den Küstengewässern Ostindiens, nordwärts bis Florida, vorkommenden Fledermausfisches von der Familie *Malthidae*. Die Flossen sind so umgestaltet, dass der Fisch damit auf dem Meeresboden laufen kann.

**Sch.** - Ein neues Buch über Seefische [*Liber novus de Piscibus marinis*]. Fischmarkt, IV, 4, 107-109. Cuxhaven (1936). **b - 1238**

Besprechung des neuerschienenen Werkes von E. Ehrenbaum « Naturgeschichte und wirtschaftliche Bedeutung der Seefische Nordeuropas ».

**Sch.** - Beobachtungen an Riesenhaien [*Observationes circa speciem « Selache maxima »*]. 1 Abb., Fischmarkt, IV, 7, 185-189. Cuxhaven (1936). **b - 1239**

Bericht über die im Mai 1936 auf 47° 40′ N. und 26° 40′ W. gemachten Beobachtungen über *S. maxima*, die ganz besondere von den anderen Haifischen abweichende Lebensgewohnheiten haben.

**Sch.** - Fang eines eigenartigen Fisches [*Piscis notandus captus*]. 1 Abb., Fischmarkt, IV, 7, 189-190. Cuxhaven (1936). **b - 1240**

Bericht über den Fang von *Ceratias holboelli* am 26. Juni 1936 in den isländischen Gewässern von Ingolfshöfdi. Kurze beschreibung der eigenartigen Aussengestalt des Fisches, der in vereinzelten Exemplaren in der Nordatlantik vorkommt.

## Mammalia.

**Barabasch - Nikiforow I. I.** - Die Seerobben der Komandorskischen Inseln [*De Pinnipediis ad insulas* Commandorski *pertinentibus*]. (In Russ., Dtsch. Rés.). 7 Abb., 3 Tab., Trans. Inst. Fish. & Oceanogr., USSR (UNIRO), III, 223-237. Moscow & Leningrad (1936). **b - 1241**

Die wichtigsten hier vorgetretenen Arten sind: *Callorhinus ursinus* L., *Eumetopias jubatus* Schr., *Phoca vitulina largha* Pall., Altersklassen, Reproduktion, Nahrung, Wanderungen.

**Chapsky K. K.** - The Walrus of the Kara Sea [« *Trichechus rosmarus* » *ad mare Karense pertinens*]. (In Russ., Engl. Rés.). 34 figs., tabl., Trans. Arct. Inst., LXVII, 1-124. Leningrad (1936). **b - 1242**

Morphological characters. The morphology of the tusks and study on the growth and the sex characteristics. Division into age and sex groups. Geographical distribution. The character of the colonies, age and sex composition. Reproduction. Some notes on the hair. Food. Principal characters of the stock. Industry.

**Dorofeew S. W.** - Beiträge zur angewandten Biologie der Flossentiere der Tatarischen Wasserstrasse während der Frühlings-Eisperiode [*Contributiones in biologiam applicatam quoad Pinnipedia in Strictu Scythico, glacierum periodo*]. (In Russ., Dtsch. Rés.). Trans. Inst. Fish. & Oceanogr. USSR (UNIRO), III, 217-220. Moscow & Leningrad (1936). **b - 1243**

*Phoca vitulina largha* (Pall.), *Phoca hispida* (Schr.), *Erignathus barbatus nauticus* (Pall.) und *Histriophoca fasciata* (Zimm.) Ihre Lagerstätten auf dem Eis, Analyse der Altersgruppen, Reproduktion.

**Dorofeew S. W.** - Materials on the Study of the Early Life of the White Sea Harp Seal [*Res pro investigationibus vitae embryonalis speciei « Histriophoca groenlandica oceanica »*]. (In Russ., Engl. Rés.). Trud. poljarn. Komm., Akad. Nauk. USSR, 31, 1-39. Moskva-Leningrad (1936). **b - 1244**

Results of observations made in the White Sea 1934-1935 on the time of breeding, length of the lactation period, stages of development in the obesity of the puppy seal and the changing of hair.

**Fraser F. C.** - Recent Strandings of the False Killer Whale, *Pseudorca crassidens* with special Reference to those found at Donna Nook, Lincolnshire [*Inventiones recentiores speciei « Pseudorca crassidens ». Agitur particulatim de inventionibus in* Donna Nook (Lincolnshire)]. Scott. Natur., 220, 105-114. Edinburgh (1936). **b - 1245**

**Freyman C.** - La distribuzione dei *Pinnipedia* nei mari dell'Estremo Oriente [*Pinnipedia. Quaestio de distributione in maribus regionum orientalium*]. (In Russ.). 1 carta f. t., 2 fig., Trans.

Inst. Fish. & Oceanogr. USSR (UNIRO), III, 157-160. Moscow & Leningrad (1936). **b - 1246**

Informazioni su *Phoca hispida, Ph. vitulina largha, Erignathus barbatus.*

**Freyman S.** - Über die Biologie der Robben im Fernen Osten [*Phocae. Materies ad easdem studendas in orientalibus regionibus extremis*]. (In Russ., Dtsch. Rés.). Trans. Inst. Fish. & Oceanogr. USSR (UNIRO), III, 184-203. Moscow & Leningrad (1936). **b - 1247**

Lebenszyklus und Beschreibung von *Phoca hispida*, subsp. *Aciba, Ph. vitulina largha, Histriophoca fasciata, Erignathus barbatus, Eumetopias jubatus.*

**Junge G. C. A.** - Bones of a Whale from the Wieringermeer, Zuider Zee [*Balaenae ossa reperta in regione* Wieringermeer τοῦ Zuider Zee]. Nature, CXXXVIII, 3480, 78. London (1936). **b - 1248**

Short preliminary note. (A detailed paper will be published in the journal Temminckia in the beginning of 1937). The bones found have probably belonged to a specimen of *Rhachianectes glaucus = Eschrichtius gibbosus* (Erxl.).

**Kitching G. C.** - The Manatee of St. Helena [*De Manatidis ad* St. Helena *pertinentibus*]. Nature, CXXXVIII, 3479, 33-34. London (1936). **b - 1249**

A. quotes some records of the occurrence of sea-cows at St. Helena dating from 1679.

**Klumov S. K.** - Verteilung des Weisswals im Europäisch-Asiatischen Norden [*Distributio speciei « Delphinapterus leucas » in regionibus septentrionalibus europaeis-asiaticis*]. (In Russ., Dtsch. Rés.). Tab., 10 Fig., 1 Karte, Trud. Polj. Komm., Akad. Nauk. U.S.S.R., 27, 1-67. Moskva & Leningrad (1936). **b - 1250**

Die Verbreitung dieser Art steht ohne Zweifel mit der Ernährung in Verbindung. Vf. gibt deshalb eine Zusammenstellung der im Karsschen, Weissen und Barentschen Meere lebenden Fische und Krebstiere. Etwas über die Wanderungen des Weisswals. Schema für ein weiteres Studium.

**Laurie A. H.** - The Stock of Antarctic Blue Whales [*Turma antarctica speciei « Balaenoptera musculus »*]. 1 tabl., Nature, CXXXVIII, 3479, 33. London (1936). **b - 1251**

Short information on the calculated average length of female Blue Whales from 1930-1935. Conclusions as to the depletion of the stock.

**Lun S. S.** - I *Pinnipedia* del Kamtschatka occidentale (Regione di Tigil) [*Pinnipedia ad* Kamtschatka *occidentalem pertinentia*]. (In Russ.). Trans. Inst. Fish. & Oceanogr. USSR (UNIRO), III, 212-216. Moscow & Leningrad (1936). **b - 1252**

Osservazioni sulla biologia di *Phoca vitulina largha, Phoca hispida* e *Erignathus barbatus nauticus*: migrazioni, riposo sul ghiaccio, riproduzione.

**Malm E. N. & Tatarinov N. P.** - The Dynamics of Fatness of the Dolphin (*Delphinus delphis* L.) of the Black Sea [*Crassitudinis dynamica in specie « Delphinus delphis » Ponti Euxini*]. (In Russ.; Engl. Rés.). Works Arnoldi Biol. Stat., II, 1, 87-103. Novorossiysk (1936). **b - 1253**

The minimal fatness of dolphins of small and average sizes and ages (120-160 cm) is observed in August, of large dolphins (above 160 cm) in September; the greatest fatness in March and April. Necessity of transferring the catch in the period of greater fatness.

**Matsuura Y.** - The Distribution and the Habits of Hump-Back Whales in the Adjacent Waters of Japan [*Distributio et consuetudines speciei « Megaptera nodosa » in aquis Japoniae proximis*]. (In Jap., Engl. Summ.). Bull. Jap. Soc. Scient. Fish., IV, 3, 159-170. Tokyo (1935). **b - 1254**

Results of observations on the migrations, reproduction, size, growth and sexual development of *M. nodosa* (Bonnaterre) caught almost exclusively in the southern waters of Japan, around the Bonin Islands and near the southern part of Formosa in winter.

**Matsuura Y.** - On the Lesser Rorqual found in the Adjacent Waters of Japan [*De « Balaenoptera acuto-rostrata » reperta in maribus Japonicis*]. (In Jap.; Engl. Rés.). 5 tabl., Bull. Jap. Soc. Scient. Fish., IV, 5, 325-330. Tokyo (1936). **b - 1255**

The distribution of *Balaenoptera acuto-rostrata* Lacépède coincides with that of fin whales: in summer at the Kurile Islands, in Winter in the Yellow Sea and at « Syanzen », Korea. Copulation of *B. acuto-rostrata* may be presumed to take place from December to March and the gestation period covers about ten months. Body lengths of the whales caught, and migrations.

**Naimov S. P. & Smirnov N. A.** - Sulla sistematica e sulla distribuzione geografica dei *Phocidae* nella parte settentr. del Pacifico [*De systematica et distributione geographica Phocidarum in regione septentrionali Oceani Pacifici*]. (In Russ.). Trans. Inst. Fish. & Oceanogr. USSR (UNIRO) III, 161-184. Moscow & Leningrad (1936). **b - 1256**

Diagnosi, note sistematiche, distribuzione di: *Erignathus barbatus nauticus* Pallas, *Histriophoca fasciata* Zimm., *Phoca vitulina largha* Pall., *Ph. vitulina largha pallasii* natio nova, *Ph. vitulina largha largha* Pall., *Ph. hispida* Schreb, *Ph. hispida ochotensis* Pallas, *Ph. hispida krascheninikovi* subsp. nov.

**Ostroumov N. A.** - Sur la systématique et la distribution de *Delphinapteras leucas* Pall., du Nord de l'Europe et de la Mer de Kara [*De systematica et distributione speciei « Delphinapterus leucas » in Europae regionibus septentrionalibus et in Mari Karensi*]. (En russe). 6 fig., Za Rybn. Ind. Sev., 11, 28-35. Leningrad (1935). **b - 1257**

**Ostroumov N. A.** - Le produit de la pêche de *Delphinapteras leucas* Pall. [*Fructus piscationis speciei « Delphinapteras leucas »*]. Khoz. Sev., 2, 50-56. Arkhangheljsk (1936). **b - 1258**

**Peacock A. D., Comrie L. & Greenshields F.** - The False Killer Whales stranded in the Tay Estuary [*« Pseudorca crassidens » species reperta in aestuario fluminis* Tay]. Scott. Natur., 220, 93-104. Edinburgh (1936). **b - 1259**

**Portier P.** - Pression osmotique des liquides des Oiseaux et des Mammifères marins [*De pressione osmotica in liquoribus avium et mammaliorum marinorum*]. Rés. Campagnes Scient., XCIV, 18-24. Monaco (1936). **b - 1260**

Les observations sur les points de congélation du sang, de la bile, de l'urine de la vessie et des milieux liquides de l'œil dans *Balaenoptera Sibbaldii, Phoca barbata* et *P. foetida* conduisent à la constatation que la pression osmotique des vertébrés marins est plus élevée que celle des animaux terrestres de la même classe et qu'elle peut varier dans des limites très étendues. Résultats sur la pression des oiseaux marins.

**Portier P.** - Observations faites au Spitzberg sur un jeune Phoque conservé en captivité [*Observationes in regione* Spitzberg *peractae de juveni quadam phoca in captivitate serbata*]. Rés. Campagnes Scient., XCIV, 25-26. Monaco (1936). **b - 1261**

On a pu capturer au moyen du filet et placer dans une baignoire sur le pont de la « Princesse Alice » un jeune Phoque, qui mourut au bout d'une quinzaine de jours par inanition; la graisse qui entoure les reins avait disparu tandis que la graisse de couverture avait conservé la même épaisseur.

**Portier P.** - Observations et expériences sur les Mammifères marins [*Observationes et experientiae de Mammaliis marinis*]. Rés. Campagnes Scient., XCIV, 30. Monaco (1936). **b - 1262**

Le mécanisme du souffle dans les Cétacés. Le sommeil des mammifères marins, la graisse de couverture et la graisse de réserve.

**Pouchet G.** - Communication à propos de l'anatomie du Cachalot [*Communicatio de balaenae anatomia*]. Rés. Campagnes Scient., XCIV, 4. Monaco (1936). **b - 1263**

Rectification d'une erreur d'interprétation à propos de l'origine du blanc de baleine.

**Richard J.** - Documents sur les Cétacés et Pinnipèdes provenant des Campagnes du Prince Albert I^er^ de Monaco [*Cetacea et Pinnipedia provenientia a navigationibus peractis a Principe* Albert I^er^ de Monaco. *Documenta*]. 8 pls., Rés. Campagnes Scient., XCIV, 1-72. Monaco (1936). **b - 1264**

L'A. a réuni plusieurs publications déjà parues, élaborées par P. Portier, G. Pouchet, Ed. Retterer et H. Neuville, J. Richard, J. Richard et H. Neuville, sur l'anatomie et la physiologie de vertébrés marins.

**Richard J.** - Notes sur les Cétacés et les Pinnipèdes [*Notae de Cetaceis et Pinnipediis*]. Rés. Campagnes Scient., XCIV, 34-61. Monaco (1936). **b - 1265**

Mensurations sur *Grampus*, *Pseudorca crassidens*, *Delphinus delphis* et *Tursiops tursio*, provenant des campagnes de 1885 au 1929.

**Richard J. & Neuville H.** - Sur quelques Cétacés observés pendant les campagnes du yacht «Princesse Alice» [*Nonnulla Cetacea observata navigationibus perdurantibus pamphilii* « Princesse Alice »]. Rés. Campagnes Scient., XCIV, 9-17. Monaco (1936). **b - 1266**

Mensurations de deux *Grampus griseus* et de deux exemplaires de *Orca gladiatoria* capturés au large de Monaco, dont on a pu étudier les squelettes et les viscères, ainsi que les particularités d'un *Delphinus delphis*.

**Richter R.** - Neue Bilder von unseren Riesen-Walen in der Halle und im Freien [*Descriptiones novae Balaenarum*]. 6 Abb., Natur u. Volk, LXVI, 2, 63-68. Frankfurt a. M. (1936). **b - 1267**

Reproduktion einiger Aufnahmen der Finwalsskelette mit begleitendem Text; Gewicht, Fettinhalt der Wale.

**Slijper E. J.** - Die Cetaceen [*Cetacea*]. 256 Abb., 590 S., Capita Zoologica, VII, Der Haag (1936).

( — ) Dissertation Zool. Labor. Utrecht (1936). **b - 1268**

Ein Beitrag zur vergleichenden Anatomie des Blutgefäss-, Nerven- und Muskelsystems, sowie des Rumpfskelettes der Säugetiere mit Studien über die Theorie des Aussterbens und der Foetalisation. Das System der Sinus durae matris, der Vena cava posterior und der Vena Azygos; die embryonalen Gefässe; die allgemeine Form und Begrenzung des Thorax, die Organe des Halses und des Vorderen Thoraxabschnittes; der Atmungsmechanismus; die Rückenmuskeln und Rückenmarksnerven; die Regionen der Wirbessäule; die Querfortsätze und Dornfortsätze der Wirbel; die Symmetrieverhältnisse im Rumpfe und die Assymetrie des Schädels; die Lage des Embryos bei der Geburt; die Pathologie in bezug auf die Theorie des Aussterbens; die Phylogenie. Bibl.

**Smirnov N. A.** - Les animaux marins de l'Arctique (Les Pinnipèdes et les Cétacés) [*Animalia marina regionum Arcticarum* (*Pinnipedia et Cetacea*)]. (En russe). Zveri Arktiki (Anim. Arct.) Ed. Glavsevmorpoutj, 453-567. Leningrad (1935). **b - 1269**

**Steven G. A.** - Seals of the Cornwall Coast [« *Halichoerus gryphus* » *in litoribus regionis* Cornwall]. 6 figs., Journ. Mar. Biol. Ass., XX, 3, 493-506. Plymouth (1936). **b - 1270**

Information concerning the species of seals present on the North Cornwall Coast, the density of the population and the position of the rookeries. All the caves in which the seals live were explored. Total number of seals on the North and South Coast. Breeding, log.

**Tetly H.** - Greenland Seal in British Waters [« *Phoca groenlandica* » *in aquis Britannicis*]. Nature, CXXXVII, 3457, 192. London (1936). **b - 1271**

Short note confirming the first record of *Phoca groenlandica* in British waters to be in 1836.

**Tomilin A. G.** - Der Pottwal des Kamtschatka -Meeres [*Species* «*Physeter macrocephalus*» *ad mare regionis* Kamtschatka *pertinens*]. (Russ., Dtsch. Rés.). 3 Abb., 1 Karte, Taf., Zool. Journ., XV, 3, 483-519. Moskva (1936). **b - 1272**

Beschreibung, die Jagd des Pottwals (statistische Angaben für 1933-1935); Fortpflanzung, Nahrungs- und Lebensverhältnisse, Wanderungen, geographische Verbreitung.

**An.** - Selbstmord von Walherden ? [*Num balaenarum turmae mortem sibi consciscunt ?*]. 2 Abb., Umschau, XL, 9, 169. Frankfurt a. M. (1936). **b - 1273**

Einige Beispiele von an Küsten vorgefundenen toten Walherden. Versuch zur Erklärung dieser Erscheinung.

## Animalia incertae sedis.

**Borg F.** - Einige Bemerkungen über Brackwasserbryozoen [*Bryozoa in aquis salmacidis viventia. Observationes*]. 3 Abb., Zool. Anz., CXIII, 188-193. Leipzig (1936). **b - 1274**

Ueber die Beziehungen zwischen Nematoden und Bryozoen mit besonderer Berücksichtigung der im niederländischen Brackwasserkanal und in verschiedenen Brackwassergebieten der Ostsee befindlichen Arten: *Membranipora membranacea* = *Membranipora* (*Electra*) *crustulenta*, *M.* (*Callopora*) *aurita*. Verzeichnis von 25 Spezies. Besonderes Anpassungsvermögen an das Leben im Brackwasser.

**Bossler R. S.** - Nomenclatorial Notes on Fossil and Recent *Bryozoa* [*Bryozoa fossilia et recentiora. Nomenclatura*]. 12 figs., Journ. Washington Acad. Sc., XXVI, 4, 156-162. Washington (1936). **b - 1275**

This material contains 3 new genera and spp. Description of a genus formerly named but not described properly. Several changes and emendations.

**Hatai K.** - The Geographic Distribution of *Brachiopoda*. Part I. Recent *Brachiopoda* of Japan. Part 2 and 3, Recent *Brachiopoda* of Foreign Countries [*Brachiopoda. Distributio geographica. Pars Iª. Brachiopoda recentiora Japonica. Partes II et III. Brachiopoda recentiora ad externas regiones pertinentia*]. Bull. Biogeogr. Soc. Japan, VI, 63-70; 75-95. Tokyo (1936). **b - 1276**

According to the Author « the Brachiopods of Japan show very interesting geographical distribution, some species and even genera are confined to the waters bordering Japan, some species and most of the genera are very widely distributed in the northern hemisphere, a smaller number are distributed southwards instead of northwards as is the case of the most common ones. List of distribution and localities. Description of some important species.

**Hatai K.** - A List of the *Brachiopoda* dredged by the Surveying Ship Sitito-maru of the Tokyo Fisheries Experimental Station in August 1935 [*Elenchus Brachiopodorum collectorum navi exploratoria* « Sitito-maru » *ad Stationem experimentalem piscatoriam in* Tokyo *pertinenti, mense Augusto 1935*]. Bull. Biogeogr. Soc. Japan, VI, 143-146. Tokyo (1936). **b - 1277**

Seven species of *Brachiopoda* are contained in this collection taken from the shore of the inlets south of the Idu Peninsula.

**Hatai K.** - Neogene *Brachiopoda* from Japan [*Brachiopoda Japonica aetate neogenica*]. 2 pls. o. t., Jap. Journ. Geol. & Geogr., Trans. & Abstr. XIII, 3/4, 283-324. Tokyo (1936). **b - 1278**

List of localities and species found. The geographic and geologic distribution of the genera dealt with and the specific affinities of their forms. Description of 26 species, 10 of which are new.

**Hatai K.** - A List of the Recent *Brachiopoda* dredged from the Littoral Sea of the Pacific Side of Bôsô Peninsula, Central Japan [*Elenchus Brachiopodorum recentiorum dracis auxilio collectorum, ad litora Oceani Pacifici apud paeninsulam* Bôsô *in Japonia centrali*]. 1 fig., Rec. Oceanogr. Works Japan, VIII, 1, 191-207. Tokyo (1936). **b - 1279**

Fifteen species are listed and described, one of which is new, *Laqueus pacificus* sp. nov. and one indeterminable.

**Reed Cowper F. R.** - Some new Brachiopods from Girvan [*Brachiopoda quaedam nova ad* Girvan *pertinentia*]. 1 pl., Ann. & Mag. Natur. Hist., XV, 91, 1-12. London (1935). **b - 1280**

About 10 forms, most of them new, are added to those described in Author's Memoir of 1917.

**Remane A.** - *Monobryozoon ambulans* n. g., n. sp., ein eigenartiges Bryozoon des Meeressandes [« *Monobryozoon ambulans* » *peculiaris in arena marina*]. 3 Abb., Zool. Anz., CXIII, 161-167. Leipzig (1936). **b - 1281**

Bericht über eine im Meeressand auf Helgoland in September 1934 aufgefundene Art. Beschreibung. Klassifikation.

**Sakakura K.** - *Bryozoa* from Toyama Bay, Sea of Japan [*Bryozoa ad Bajam* Toyama *pertinentia in mari Japonico*]. 1 pl., 2 figs., Annot. Zool. Jap., XV, 1, 106-119. Tokyo (1935). **b - 1282**

Of the 40 spp. reported here, two are new: *Arachnopusia* (?) *Kikuchii* and *Lyrula multipora*.

**Silén L.** - *Bryozoa* from the Skager Rack, with Notes on the Genus *Triticella* Dalyell [*Bryozoa collecta in* Skagerack. *Notae de genere* « *Triticella* »]. Ark. f. Zool., XXVIII A., H. 3, 16, 1-10. Stockholm (1936). **b - 1283**

List of 34 species of *Entoprocta* and *Bryozoa*, most of them found close to the Norwegian coast. Discussion on the determination and characteristic differences of *Triticella korenii* G. O. Sars, *J. boeckii* G. O. Sars and *T. flava* Dalyell. Emendations.

**Stach L. W.** - Notes on *Cryptosula pallasiana* Moll 1803 (*Bryozoa*) [*Notae de specie* « *Cryptosula pallasiana* »]. Victor. Natural., 52, 83-84. Melbourne (1935). **b - 1284**

Living colonies found in Port Phillip Bay.

**Yabe H. & Hatai K.** - The Recent Brachiopod Fauna of Japan. 3. Notes on the Subfamily *Laqueinae* [*Brachiopoda. De fauna recenti in Japonia*]. 1 fig., Proc. Imp. Acad., XII, 2, 44-46. Tokyo (1936). **b - 1285**

Three new species and one new subspecies, all but one from the Japan Sea. Short descriptions.

## Varia.

**Bouxin J. & Legendre R.** - La faune pélagique de l'Atlantique recueillie dans des estomacs de Germons au large du Golfe de Gascogne (IIe Partie: Céphalopodes) [*De fauna pelagica Oceani Atlantici collecta a stomacis speciei* « *Germo alalonga* » *longe a litoribus Sinus Vasconici. Pars. IIª: Cephalopoda*]. 21 fig., 99 pp., Ann. Inst. Océanogr. (Nouv. série), XVI, 1. Paris (1936). **b - 1286**

Liste et étude des espèces des Céphalopodes trouvés dans des estomacs de Germons: systématique, rencontres antérieures, taille et développement, habitat et distribution géographique.

L'étude de la brotologie du Germon présente d'autant plus d'intérêt que les thonniers vont le plus souvent en haute mer, au dessus de grands fonds et les individus qu'ils peuvent ainsi fournir sont d'espèces très rares, connues seulement par quelques exemplaires, et des formes pélagiques du développement d'espèces plus littorales.

**Calman W. T.** - Marine Boring Animals injurious to Submerged Structures [*Animalia marina obnoxia structuris submersis*]. Ill., Brit. Mus. (Natur. Hist.), 10, 1-38. London (1936). **b - 1287**

Second edition revised by G. J. Crawford. The pamphlet sums up our present-day knowledge of the natural history of the animals concerned.

**Cipria G.** - Secondo elenco di animali in vendita presso l'Istituto Centrale di Biologia marina di Messina [*Elenchus alter animalium quae venum eunt in Instituto Centrali pro Biologia marina, Messanae*]. Mem. R. Comit. Talassogr. It., CCXXIX, 3-12. Venezia (1936). **b - 1288**

L'elenco comprende numerose specie di Molluschi, Branchiostomi, Crostacei, Pantopodi, Vermi, Echinodermi, Celenterati, Poriferi e Protozoi.

**Dons C.** - Den zoologiske avdeling: Evertebratsamlingen [*Sectio Zoologica: Evertebrata*]. 4 figs., Kgl. Norsk. Vidensk. Selsk. Mus. Årsber. 1934, 50-54. Trondheim (1935). **b - 1289**

The biggest specimen ever taken in Norway of *Loligo Forbesi*; 2 specimens of *Eledone cirrosa*; *Cidaris cidaris; Nereis virens;* shells of *Rynchonella psittacea*, very seldom found; colonies of *Porella compressa* and *Lophelia prolifera; Paragorgia arborea* (2 m. high.).

**Larsen K.** - The Distribution of the Invertebrates in the Dybsø Fjord, their Biology and their Importance as Fish Food [*Distributio Invertebratorum in* Dybsø Fjord, *eorumque biologia et momentum pro Piscium alimentatione*]. 9 figs., tabls., Rep. Danish Biol. Stat., XLI, 3-35. Copenhagen (1936). **b - 1290**

General remarks, topography, depth, vegetation, nature of bottom, salinity, etc. Distribution and biology of Invertebrates: Bivalves; Gastropods; Crustaceans; Vermes; Insects. Nutrition and growth of the Fishes: *Anguilla vulgaris* Turton, *Pleuronectes flesus* L., *Gadus callarias* L., *Cottus scorpius* L., *Zoarces viviparus* L., *Gobius niger* L., *Leuciscus rutilus* L. The proportion between the percentage weight amount of the Invertebrates per 1 sq. m. of the Fjord and their percentage weight amount of fish Stomachs. Number and weight (in mgs.) per sq. m. at the bottom sampler stations and on the hand net stations.

**Monterosso B.** - Commentari faunistici sardi [*Commentaria faunistica Sarda*]. 6 fig., Rend. Sem. Facoltà Sc., VI, 1, 5-27. Cagliari (1936). **b - 1291**

I. Descrizione e principali caratteri della foca mediterranea. Cattura di tre foche a Cala di Gonone, la loro dentatura, la loro alimentazione e cenni sulla loro biologia. L'incedere delle foche sul terreno. La perdita della livrea giovanile. II. Descrizione di un esemplare maschile di *Balaenoptera physalus*, spiaggiato a Stintino.

**Schenck E. P. & McMasters J. H.** - Procedure in Taxonomy; including a Reprint of the International Rules of Zoological Nomenclature with Summaries of Opinions Rendered to the Present Date [*Methodus pro Taxonomia, reimpressione inclusa regularum internationalium pro Nomenclatura Zoologica cum adjectis summariis opinionum usque in hodiernum*]. vii + 72 pp., Univ. Press. Stanford, Ca. (1936). **b - 1292**

**Steuer A.** - *Sipunculoidea, Phoronidea, Brachiopoda, Enteropneusta* und *Acrania* von Alexandrien in Ägypten [*Animalia Alexandriae inventa, in Aegypto*]. 4 Abb., Not. Ist. Biolog. Rovigno, 23, 3-18. Jena (1936). **b - 1293**

*Phascolosoma vulgare, P. elongatum, Aspidosiphon clavatus, Physcosoma granulatum, Phoronis mülleri, Mühlfeldtia truncata, Argyrotheca cuneata, Saccoglossus gurneyi, Glandiceps talaboti* und *Branchiostoma lanceolatum*. Liste der Fundorte.

**Takahashi S.** - Notes on *Hydridae* of Kôtôsho (Botel Tobago Island) [*Notae de « Hydridae » ad* Kôtôsho *pertinentibus*]. (In Jap.). 1 fig., Trans. Nat. Hist. Soc. Formosa, XXV, 140, 142-144. Taihoku (1935). **b - 1294**

Record, with notes on habits and utilization of the following six species of sea-snakes, from Kôtôsho: *Laticauda semifasciata* (Reinwardt), *L. colubrina* (Schneider), *Emydocephalus ijimae* Stejneger, *Disteira spiralis melanocephala* (Gray), *Pelamydrus platurus* (Linnaeus).

**Wilson D. P.** - Life of the Shore and Shallow Sea [*Organisma viventia in litoribus et in mari demisso*]. 56 pls., 9 figs., Ivor Nicholson & Watson Ltd. London (1936). **b - 1295**

Being engaged on research work at the Marine Biological Station at Plymouth A. has had good opportunities of observing the life of living things on the shore and in the shallow sea of which he here reproduces descriptions with exceptionally beautiful photographs.

**Smithsonian Institution** - Opinions rendered by the International Commission on Zoological Nomenclature. Opinions 124 to 133 [*Opiniones Commissionis Internationalis de nomenclatura zoologica*]. Smithson. Miscell. Coll., LXXIII, 8, Publ. 3395, 1-44. Washington (1936). **b - 1296**

Of interest to the marine biology are opinions No. 126 127, 130, 131 and 133 concerning respectively new name for d'Orbigny's 1850 « Prodrome », suspension of rules for *Lepidocyclina* Gümbel, 1868, type *Nummulites mantelli*, *Lytoceras* Suess, 1865, placed in the official list of generic names, the type species of *Tromikosoma* Mortensen 1903 and *Urothoe* Dana and *Phoxocephalidae* Sars.

**An.** - Serpientes marinas [*Serpentes marini*]. Ibérica, 1105, 70. Barcelona (1936). **b - 1297**

Información sobre las serpientes marinas que constituyen la familia de los hidrofiidos, y viven en los mares tropicales de la región oriental y, también, en la región australiana. No hay que confundir estos interesantes ofidiios con las legendarias « serpientes de mar » de existencia tan controvertida.

**An.** - Noms Communs des Principaux Poissons et Invertébrés marins comestibles dans les pays d'Europe riverains de l'Atlantique [*Nomina vulgaria praecipuorum Piscium et Invertebratorum marinorum edulium in regionibus europaeis Oceanum Atlanticum spectantibus*]. Mém. Off. Pêches Marit., Man. Pêches Marit. franç. (sér. spéc.), 11/3, 157-169. Paris (1936). **b - 1298**

Liste comparative des noms français, latins, anglais, flamands, allemands, danois, norvégiens, espagnols, portugais des poissons comestibles et des Mollusques, Tuniciers, Crustacés, Echinodermes.

# BOTANICA

## Plantae marinae – Algologia.

**Aikawa H.** - On the Diatom Communities in the Waters surrounding Japan [*De communitatibus Diatomearum in aquis quae Japoniam circumdant*]. 60 figs., 60 tabl., Rec. Oceanogr. Works in Jap., VIII, 1, 2-159. Tokyo (1936). **b - 1299**

I. On net-collections. II. Diatom communities in the Pacific. III. The Diatom communities in the Japan Sea.

**Airoldi M.** - Sull'appartenenza della « Pelagosite » ad un nuovo genere di alga calcarea [*De quodam alga calcarea quae ad genus novum pertinet*]. 1 tav., Atti R. Acc. Naz. Lincei, Cl. Sc. Fis. Mat. Natur., XXIV, 1/2, 18-23. Roma (1936). **b - 1300**

L'A. riconosce nella « Pelagosite » della Riviera ligure un nuovo genere di alga calcarea; il nome proposto è *Sclerothamnium nitens* n. g. et n. sp. La composizione chimica, quale risulta dall'analisi di E. Onorato, è confrontata con quella conosciuta per altre Corallinacee. L'A. riconosce poi, in associazione con l'alga da lui descritta, alcune file cellulari di talli di *Melobesia melobesoides* F., finora mai segnalato vivente nel Mediterraneo.

**Bachrach E. & Simonet M.** - Les diatomées et la pigmentation bleue [*De Diatomeis et pigmentatione caerulea*]. C. R. Acad. Sc., CCII, 11, 976-977. Paris (1936). **b - 1301**

Après avoir fait observer que sur des milieux déséquilibrés ou carencés, on observe une modification dans la pigmentation des Diatomées, qui bleuit, les A.A. déduisent sur la base de nombreuses expériences faites sur un grand nombre d'espèces d'eau douce et aussi marine, que la présence du pigment bleu n'est pas spécifique de *Navicula ostrearia* et que c'est un phénomène d'ordre général dans la grande famille des Diatomées. Les A.A. croient devoir rejeter la dénomination de Diatomée bleue appliquée à *N. ostrearia*, pour ne parler dorénavant que de Diatomées bleuies.

**Chemin E.** - Observations algologiques [*Observationes algologicae*]. Bull. Lab. Marit. Saint-Servan, XIV, 16-17. Rennes (1935). **b - 1302**

Cinq espèces furent récoltées dans le Pointe de la Varde et dix dans les environs du Fort Duguesclin.

**Chen C. S. & Kao T. P.** - *Porphyra* of Pooto [« *Porphyra* » *ad* Pooto *pertinens*]. (In Chin., Engl. Rés.). Bull. Chekiang Prov. Fish. Exper. Stat., II, 6, 1-7. Tinghai, Chekiang (1936). **b - 1303**

Results of a study carried out at Pooto Island near Tinghai from October 1935 to July 1936 on the species *Porphyra suborbiculata* Kjellm. and *P. dentata* Kjellm. used as food by the Chinese. Life history, habitat, growth.

**Colla S.** - La perdita e l'assunzione di acqua da parte di *Fucus virsoides* [*De aquae amissione atque assumptione per speciem* « *F. virsoides* »]. Boll. Soc. It. Biol. Sper., IX, 881-883. Napoli (1934). **b - 1304**

L'A. ha studiato la perdita dell'acqua da parte di *Fucus virsoides*, sottoposti a vari trattamenti concludendo che essi possono perdere il 99 % dell'acqua totale senza morire, e rimessi successivamente nell'acqua riacquistano in breve il 45 % del loro peso. Tale azione è dovuta principalmente alla massa gelatinosa che si trova fra le ife del *Fucus*.

**Czurda V.** - Ueber die Begriffe « Typus » und « Variabilität » in der Systematik der Algen [*De verborum vi « Typus » et « Variabilitas » pro systematica Algarum*]. Beih. Bot. Zentralbl., Abt. A., LIII, 1, 158-191. Dresden (1935). **b - 1305**

**Dangeard P.** - La Laminaire du Cap: *Laminaria pallida* (Grev.) J. Ag. [« *Laminaria pallida* » *e Promunturio* de Bonne-Espérance]. 4 fig., Bull. Stat. Biol. Arcachon, XXXIII, 1, 89-105. Bordeaux (1936). **b - 1306**

Etude anatomique, données certaines sur le mode de vie et sur les caractères les plus essentiels de *Laminaria pallida* provenant du Cap de Bonne-Espérance espèce caractéristique de cette région. Dans la région ibérico-marocaine existe une Laminaire à lame digitée qui n'est autre que le *L. Lejolisii*.

**Davy de Virville D. A.** - Observations sur la flore marine des côtes du Cotentin [*Observationes de flora marina ad litora regionis* Cotentin]. Bull. Lab. Marit. Dinard, 16, 21-28. Rennes (1936). **b - 1307**

Comparaison de la flore marine des côtes W., basses, droites, sablonneuses, et des côtes N., élevées, rocheuses, très decoupées, qui sont très différentes en raison du relief littoral et de son exposition aux vagues et aux courants. La première est une flore pauvre, à Fucacées, la deuxième est plus riche et plus variée.

**Feldmann J. & Frémy P.** - Matériaux pour la Flore Algologique Marine de la Tunisie. II. Contribution à l'étude biologique et systématique de la « Muffa » [*Res collectae ad studendam floram algologicam marinam Tunetanam. II. Contributio in studendam* « Muffa » *e systematica et biologia*]. 2 fig., Stat. Océanogr. Salammbô, 29, 5-24. Tunis (1935). **b - 1308**

Biologie des masses gélatineuses blanchâtres ou brunâtres, qui se développent dans le Golfe de Gabès, désignées sous le nom de « Muffa », constituées par le *Phormidium mycoideum* n. sp., nombreuses Diatomées et beaucoup d'autres organismes, soit animaux, soit végétaux.

**Fortin M.** - Quelques Algues Marines du Calvados [*Nonnullae Algae marinae ad regionem* Calvados *pertinentes*]. Bull. Lab. Marit. Saint-Servan, XIV, 14-15. Rennes (1935). **b - 1309**

*Codium tormentosum, Vaucheria piloboloides, Arthrocladia villosa.*

**Frémy P.** - Marine Algæ from the Canary Islands especially from Teneriffe and Gran Canaria. IV. *Cyanophyceæ* [*Algae marinae in Insulis Fortunatis praecipue in* Teneriffa *et* Gran Canaria. *IV. Cyanophyceae*]. (French text.). Kgl. Dansk. Vidensk. Selsk. Biol. Medd., XII, 5, 1-43. København (1936). **b - 1310**

Descriptions, localities, geographical distribution and bibliographical notes of about 54 species collected by F. Børgesen.

**Gardner N. L.** - A new red Alga from New Zealand [*Alga nova rubra in Nova Zelandia*]. Proc. Nat. Acad. Sc. U. S. A., XXII, 6, 341-345. Washington (1936). **b - 1311**

Diagnosis also in latin of *Erythrotrichia Hunteriae* sp. nov. This species was found growing on the leaves of *Zostera novazelandica* on June 23, 1935.

**Hollenberg G. J.** - A Study of *Halicystis ovalis*. I. Morphology and Reproduction. II. Periodicity in the Formation of Gametes [*Studium de specie « Halicystis ovalis ». I. Morphologia et reproductio. II. Periodicitas in gametorum formatione*]. Amer. Journ. Bot., XXII, 9, 782-812; XXIII, 1, 1-3. Lancaster, Pa. (1935 & 36). **b - 1312**

Numerous records of *Halicystis* from the coast of central California showed that this species occurs there more frequently than formerly supposed. Confirmation of earlier descriptions: Unlike other members of the Siphonales the reproductive portion is not cut off by a cross wall. Description of a filamentous protonemal stage from which the endophytic rhizomes develop. II. Study of the reproductive cycles under natural and laboratory conditions.

**Hygen G.** - Ueber den Lebenszyklus und die Entwicklungsgeschichte der Phaeosporeen. Versuche an *Nemacystus divaricatus* (Ag.) Kuck. [*De cyclo vitali et historia accretionis quoad « Phaeosporeae ». Experimenta ducta speciei auxilio « Nemacystus divaricatus »*]. 16 Taf. a. T., 11 Abb., Nyt. Mag. f. Naturvidensk., LXXIV, 187-268. Oslo (1934). **b - 1313**

Uebersicht der bisherigen Untersuchungen. Fortpflanzung und Generationswechsel der Phaeosporeen: Die Fortpflanzungsorgane, die bisher gemachten experimentellen Untersuchungen über den Lebenszyklus der Phaeosporeen, Bemerkungen über den Generationswechsel, den Lebenszyklus und die Entwicklungsgeschichte. Untersuchungsmethoden. Experimentelle Untersuchungen. Die Entwicklung der haploiden und diploiden Generation. Der Lebenszyklus von *N. d.* Bemerkungen zur Systematik der Braunalgen. Bibl.

**Inagaki Kan-ichi** - Some Marine Algae Recently Discovered in Japan and New to Science [*Algae marinae recentiores in Japonia repertae, novae et rarae*]. Scient. Pap. Inst. Algol. Res., Hokkaido Imp. Univ., I, 1, 41-49. Sapporo (1935). **b - 1314**

*Erythrocladia subintegra* Ros., *Porphyrapsis coccinea* Ros., *Trailliella intricata* Batters, and three other marine algae from Osyoro Bay which seem to be new species: *Calaconema simplex*, *Branchioglossum nanum*, *Platythamnion yezoense*.

**Inoh S.** - On Tetraspore Formation and its Germination in *Dictyopteris divaricata* Okam., with special Reference to the Mode of Rhizoid Formation [*De tetrasporis formandis eorumque germinatione in specie « Dictyopteris divaricata ». Agitur particulatim de formatione radicium*]. 5 figs., Scient. Pap. Inst. Algol. Res., I, 2, 213-219. Sapporo (1936). **b - 1315**

**Kanda T.** - On the Gametophytes of Some Japanese Species of Laminariales [*De gametophytis aliquarum specierum Japonicarum Laminarialium*]. 27 figs., 3 pls., Scient. Pap. Inst. Algol. Res., Hokkaido Imp. Univ., I, 2, 221-260. Sapporo (1936). **b - 1316**

List of species of the Laminariales which have been studied by various authors, and results. In the present investigation an attempt was made to elucidate the life-cycle of the *Laminariaceae* and to make a morphological comparison of the gametophytes and of the early stages of the sporophytes of some Japanese Laminariales. Studies on *Alaria crassifolia*, *Arthrothamnus bifidus*, *Costaria costata*, *Laminaria japonica* and *Undaria pinnatifida*: zoospores and their germination, male and female gametophytes, fertilization and development of sporophytes.

**Kanno R.** - On the Zoospores of the Genus *Hormiscia* (*Urospora*) [*Zoospora ad genus « Hormiscia » pertinentia*]. (In Jap.; Engl. Rés.). 5 figs., Bull. Jap. Soc. Scient. Fish., V, 3, 177-182. Tokyo (1936). **b - 1317**

On the morphology and embryology of *Hormiscia penicilliformis* (Roth) Fries and *H. incrassata* (Kjellm.) Collins studied in experiments.

**Kawabata S.** - A List of Marine Algae from the Island of Shikotan [*Elenchus algarum marinarum ab insula* Shikotan *provenientium*]. Scient. Pap. Inst. Algol. Res, Hokkaido Imp. Univ., I, 2, 199-212. Sapporo (1936). **b - 1318**

The algal flora of the Island of Shikotan resembles those of Alaska and the Pacific coast of North America. Collection in the vicinity of Chiboi Bay of 78 species belonging to *Chlorophyceae*, *Phaeophyceae* and *Rhodophyceae*; of these 7 species are new to the Japanese flora, and *Porphyra amplissima* is described as a new form.

**Kräusel R.** - Riesenalgen und Algebäume [*Algae gigantes algaeque arboribus similes*]. 4 Abb., Natur u. Volk, LXVI, 1, 13-16. Frankfurt a. M. (1936). **b - 1319**

Besprechung einiger Algenarten: *Macrocystis pyrifera*, *Nereocystis*, *Lessonia* und prehistorischer Arten: *Prototaxiten* des Devons und Silurs.

**Lami R.** - Quelques Algues spongicoles de la Rance [*Nonnullae Algae spongiculae ad regionem* Rance *pertinentes*]. 4 fig., Bull. Lab. Marit. Dinard, 16, 7-16. Rennes (1936). **b - 1320**

Liste des algues spongicoles et examen des modifications provoquées par le « milieu éponge » sur leur structure: *Pseudovaucheria spongeliae* Lami n. gen., n. sp., *Aphanocapsa Florae* Lami n. sp., *Antithamnionella sarniensis* Lyle, *Calliblepharis ciliata* (Huds.).

**Lami R.** - Sur la valeur et les variations de salinité et d'alcalinité de l'eau contenue dans la cavité des *Codium Bursa* L. [*De valore et variationibus salinitatis et alcalinitatis aquae quae continetur in cavitatibus speciei « Codium Bursa »*]. C. R. Acad. Sc., CCIII, 21, 1093-1095. Paris (1936). **b - 1321**

La différence observée entre la salinité de la cavité et celle de l'eau extérieure est, selon l'A., due aux variations de salinité qui se produisent à l'emplacement de la cuvette, dans laquelle l'algue est tenue, pendant son immersion à marée haute et son isolement à marée basse. Quant à l'alcalinité, l'eau de la cavité a toujours un pH inférieur à celui du milieu extérieur, valeur qui ne varie que très peu.

**Levring T.** - Undersökningar över Öresund. Untersuchungen aus dem Öresund. XIX. Zur Kenntnis der Algenflora von Kullen an der schwedischen Westküste [*Investigationes in « Öresund ». XIX. De cognoscenda flora Algarum in litoribus occidentalibus Suetiis*]. 11 Abb., Lunds Univ. Årsskr. N. F. Avd. 2, XXXI, 4, 64 S. (Kgl. Fysiogr. Sällsk. Handl. N. F. LXVI, 4). Lund (1935). **b - 1322**

Verzeichnis mit Bemerkungen und Beschreibungen von 196 Arten, von denen 13 für Schweden nicht früher angegeben worden und zwei neu sind: *Chantransia stilophorae* n. sp. und *Choreocolax odonthaliae* n. sp.

**Lewis E. A.** - An Investigation of the Seaweeds within a marked Zone of the Shore at Aberystwyth, during the Year 1933-34. (With special Reference to the Use of the Spores as Food for Oyster Larvae) [*Investigationes in « Fucus » peractae in area limitata orae maritimae in* Aberystwyth, *A. 1933-34. Agitur particulatim de Sporis utendis ac alimento larvarum ostrearum*]. 1 table, Journ. Mar. Biol. Ass., XX, 3, 615–620. Plymouth (1936). **b - 1323**

Type of fruiting body and duration of fruiting given in table for about 50 species. Some conclusional remarks as to availability of species for oyster food.

**Lowe C. W.** - Observations on some Pacific Diatoms as the Food of Copepods and Fishes [*Observationes circa Diatomeas Oceani Pacifici ac alimentum Copepodorum et Piscium*]. 2 tabl., Journ. Biol. Bd. Canada, III, 1, 12–19. Toronto (1936). **b - 1324**

Investigations on the food chains between Diatoms, Copepods (*Calanus tonsus, Euchaeta japonica, Metridia lucens, Harpacticus uniremus, Diosaccus spinatus*) and Fishes (*Clupea pallasii, Oncorhynchus keta, O. tschawytscha, Squalus suckleyi, Ophiodon elongatus, Sebastodes caurinus, Platichthys stellatus, Parophrys vetulus, Damalichthys vacca, Taeniotoca lateralis, Cymatogaster aggregatus*).

Almost all the common diatoms were found to be used as food by the copepods. The copepods and herring were found to be important links in the food chains between diatoms and the larger fishes. (From A:s abstr.).

**Lucas A. H. S.** - The Marine Algae of Lord Howe Island [*Algae marinae ad insulam* Lord Howe *pertinentes*]. 5 pls., 7 figs., Proc. Linn. Soc. N. S. Wales, LX, 3/4, 194–232. Sidney (1935). **b - 1325**

Taxonomic account of *Chlorophyceae* with 6 new species, *Phaeophyceae* with 3 new species, *Rhodophyceae* with 11 new species. The Algae are of tropical facies, probably streaming down from New Caledonia in Pleistocene times.

**Lund S.** - Nogle interessante Rödalgefund fra Københavns havn [*Algae quaedam rubrae notandae in portu Hauniensi repertae*]. Bot. Tidsskr., XLIII, 1, 57-58. København (1934). **b - 1326**

**Lund S.** - On the Production and the Growth in some Benthic Plants [*De productione et progressione in quibusdam plantis benthonicis*]. 8 figs., tabls., Rep. Danish Biol. Stat., XLI, 37-52. Copenhagen (1936). **b - 1327**

Earlier investigations on the production of matter in *Zostera marina* and in marine algae. Investigations carried out by the A. on the production of matter on a given area within a given time. The production of matter in *Fucus vesiculosus* at the Saltholm, where it seems to grow much older for the rather large fluctuations of the salinity of the surface water.

**Naylor G. L.** - The Fucoid of St. John's Lake, Plymouth, including a hitherto undescribed Form of *Fucus spiralis* [*Fucoidea in Lacu Sancti Johannis*, Plymouth, *et species quaedam nondum descripta*: « *Fucus spiralis* »]. 7 fig., Rev. Algol., VII, 3/4, 425-439. Paris (1936). **b - 1328**

*Zostera nana, Salicornia nana, Glyceria maritima* and green algae such as *Rhizoclonium, Cladophora* and *Vaucheria* are present in the numerous salt marshes of the Plymouth district. Occurrence in St. John's Lake of *Fucus spiralis, F. vesiculosus* and *F. ceranoides*; their distribution in relation to the salinity of the water.

**Ranson G.** - Nouvelles observations concernant la biologie de *Navicula fusiformis* Grün (*N. ostrearia* Bory) [*Observationes novae quoad biologiam speciei « Navicula fusiformis »*]. Bull. Mus. Nat. Hist. Natur., VIII, Sér. 2, 4, 355-361. Paris (1936). **b - 1329**

Phénomènes qui s'accomplissent lorsque cette Diatomée devient benthique. L'acquisition du pigment bleu n'est pas un caractère de dégénération, mais au contraire, indique un excès d'activité. La fixation des Navicules bleues sur les argiles des lais de mer est due à la présence d'Huîtres ou du mucus d'Huîtres, qui peut déterminer la réduction de la salinité de l'eau.

**Ranson G.** - Sur la soi-disant dégénérescence de la Navicule bleue (*Navicula fusiformis* Grün. = *N. ostrearia* Bory) [*De opinata degeneratione speciei « Navicula fusiformis »*]. C. R. Acad. Sc., CCII, 20, 1702-1704. Paris (1936). **b - 1330**

Après certaines observations critiques concernant le phénomène dit de dégénérescence granulo-graisseuse de certaines algues, l'A. communique les résultats de ses récherches sur le pigment bleu existant dans certaines conditions de nutrition chez *N. fusiformis* Grün. et démontre que la Navicule bleu est tout l'opposé d'une algue qui se meurt, malgré l'hypothèse qui considére le bleuissement comme un signe de dégénérescence.

**Sauvageau C.** - Les Algues Phéosporées de Villefranche-sur-Mer [*Algae Phaeosporeae ex* Villefranche-sur-Mer]. Bull. Stat. Biol. Arcachon, XXXIII, 2, 117-204. Bordeaux (1936). **b - 1331**

Démonstration de l'alternance des générations de l'*Arthrocladia* et le *Sporochnus*; culture des zoospores de *Spermatochnus paradoxus* et de *Protasperococcus*; description de *Elachista intermedia*, de *Myriactis, Gonodia* et *Myriactula* et des suivantes nouvelles espèces: *Myriactis elongata, M. rigida, M. oxalifera, Myrionema siliquosum, M. haemisphaericum, Gontrania lubrica* et *Streblonema Thuretii*.

**Schmidt O. C.** - Neue oder bemerkenswerte Meeresalgen aus Helgoland [*Novae ac notandae algae marinae in* Helgoland]. 3 Abb., Hedwigia, LXXV, 3, 150-158. Dresden (1935). **b - 1332**

*Chlorochytrium willei*, neu für Deutschland, *Ulva kuckuckiana* n. sp.

**Segawa S.** - On the Marine Algae of Susaki, Prov. Idzu, and its Vicinity. I. II [*De algis marinis regionis* Susaki *in Provincia* Idzu *et in regionibus propinquis*]. 18 figs., 2 pls., Scient. Pap. Inst. Algol. Res., Hokkaido Imp. Univ., I, 1, 59-90; 2, 175-197. Sapporo (1935). **b - 1333**

I. List of about 200 species, belonging to the *Chlorophyceae, Phaeophyceae* and *Rhodophyceae* collected at the southern coast of the Idzu Peninsula. Of these, some subtropical algae were newly collected and four species are new to science.

II. About 70 species are listed, of which some are new to the Province, some new to Japan and some new to science. Description, dimensions, habitat.

**Sparrow F. K. Jr.** - Biological Observations on the Marine Fungi of Woods Hole Waters [*Observationes biologicae de boletis marinis in aquis* Woods Hole]. 35 textfigs., 3 pls., 1 tabl., Biol. Bull., LXX, 2, 236-263. Lancaster, Pa. (1936). **b - 1334**

Description of 15 species of phycomycetous marine fungi, two myxomycetes and a *Protomyxa*-like Protozoan. Discussion on the existence of true marine fungi, their work as « reducers » in the sea and their possible importance in the formation of marine humus. *Eurychasmidium* n. gen., *Pleolpidium* (*Rozella*) *marinum* n. sp. and *Thranstochytrium proliferum* n. gen. n. sp.

**Tanaka T.** - Four New Species of *Galaxaura* from Japan [*Galaxaura. Species novae quattuor Japonicae*]. 6 figs., 2 pls. o. t., Scient. Pap. Inst. Algol. Res., I, 1, 51-57. Sapporo (1935). **b - 1335**

Diagnosis in Latin and English.

**Tanaka T.** - The Genus *Galaxaura* from Japan [*Genus « Galaxaura » a Japonia provenien*s]. 41 figs., 11 pls. o. t., Scient. Pap. Inst. Algol. Res., I, 2, 141-173. Sapporo (1936). **b - 1336**

General remarks, key to sections and species, enumeration of species with descriptions and distribution.

**Tokida J.** - Phycological Observations. II. On the Structure of *Porphyra Onei* Ueda [*Observationes Phycologicae. II. De structura speciei « Porphyra Onei »*]. Trans. Sapporo Nat. Hist. Soc., XIV, 2, 111-114. Sapporo (1935). **b - 1337**

**Trusheim F.** - « Wattenpapier » [*Tegumen algarum strato cartaceo simile in parte litorea regionis* Wattenmeer]. 3 Abb., Natur u. Volk, LXVI, 3, 103-106. Frankfurt a. M. (1936). **b - 1338**

Beschreibung der auf dem schlickigen Sandwatt von Wangeroog vorkommenden Decke von Kieselalgen, welche besonders den Schnecken *Hydrobia* und *Littorina* reichliche Nahrung bietet. Verzeichnis der enthaltenen Diatomeen.

**Ueda S.** - Studies on the Propagation of *Gelidium* [*Gelidium. Studia de propagatione*]. (In Jap., Engl. Rés.). 3 figs., Bull. Jap.Soc. Scient. Fish., V, 3, 183-186. Tokyo (1936). **b - 1339**

Season of the spore-formation. Development of the new plants. Vicissitude of the plants.

**Vouk V.** - Studien über adriatische Codiaceen [*De Codiaceis maris Hadriatici*]. 15 Textfig., 8 Tab., 9 Taf. a. T., Acta Adriat., Inst. Biol.–Oceanogr., 8, 47 S., Split (1936). **b - 1340**

Grössenverhältnisse und Dimorphismus der Rindenschläuche bei Codiaceen. Der Formenkreis *Codium dichotomum* (Huds.) Setchell und die adriatischen Formen. Eine neue Form von *Codium* aus der Sect. *Tomentosa* in der Adria (*C. Cattaniae* n. sp.) und *Codium*-Formen aus der Sect. *Elongata* in der Adria. *C. difforme* Kütz. und nicht *C. adhaerens* (Cabr.) Ag. in der Adria. Die Codiaceen als Wohnort von roten Cyanophyceen. Bibl.

**Vouk V.** - Les Cyanophycées et la salinité dans le thallus de *Codium Bursa* L. [*De Cyanophyceis deque salsedine in thallo speciei « Codium Bursa »*]. Bull. Int. Acad. Yougosl. Sc. et Beaux-Arts, Cl. Sc. Math. et natur., XXIX-XXX, 59–63. (Rés. français. Mém. paru en Yougoslave dans le « Rad » CCLIV, 1-12). Zagreb (1936). **b - 1341**

Etude d'une centaine d'échantillons récoltés aux environs de l'Institut Océanographique à Split. Parmi les Cyanophycées vivant à l'intérieur du thallus de l'algue *Codium Bursa* l'élément principal est constitué par les espèces *Phormidium Codicolum* et *Lyngbya Frémyi*. La salinité élevé de l'eau de mer contenue dans le thallus de *Codium* aurait pour effet la turgescence de la forme sphérique du Thallus.

**Vouk V.** - Etudes sur les Codiacées de l'Adriatique [*De Codiaceis Maris Hadriatici*]. Bull. Int. Acad. Yougosl. Sc. et Beaux-Arts, Cl. Sc. Math. et natur., XXIX-XXX, 163-168. (Rés. Mém. Prirodosl. istraž., XX, 147-178). Zagreb (1936). **b - 1342**

Dimorphisme des éléments épidermiques (utricules). Systématique et clef morphologique des différentes formes de *Codium dichotomum* (Hids.) Setchell. Aperçu des formes adriatiques de *C. dichotomum*. Description d'une nouvelle espèce: *Codium Cattaniae* Vouk n. sp. Aperçu des espèces de *Codium* de la section d'*Elongata*. Correction d'une forme prétendue, *C. adhaerens*. Remarques sur l'épiphytisme et l'endophytisme du genre *Codium*.

**Whitaker D. M.** - The Effect of white Light upon the Rate of Development of the rhizoid Protuberance and the first Cell Division in *Fucus furcatus* [*De lucis albae effectu in velocitatem accretionis quoad protuberantiam rhizoidem et primam divisionem cellularem speciei « Fucus furcatus »*]. 2 figs., 1 table, Biol. Bull., LXX, 1, 100-108. Lancaster, Pa. (1936). **b - 1343**

It has previously been confirmed that the site of germination and the plane of the first cell division in the egg of the brown alga, *Fucus*, are determined by the direction of a beam of light. The experiments undertaken here have furnished data as to the time lapse from fertilization to the development of the two structures mentioned above. Comparison with the development in the dark.

**Wimpenny R. S.** - The Size of Diatoms. I. The Diameter Variation of *Rhizosolenia styliformis* Brightw. and *R. alata* Brightw. in particular and of pelagic marine Diatoms in general [*De magnitudine Diatomearum. I. Diametri variatio speciei « Rhizosolenia styliformis » et « R. alata » et Diatomearum marinarum pelagicarum generaliter*]. 1 pl., 12 figs., 4 tabl.. Journ. Mar. Biol. Ass., n. ser., XXI, 1, 29-60. Plymouth (1936). **b - 1344**

Of the two factors, temperature and salinity, temperature seems to have the greatest influence on the size of Diatoms. Contrariety to general rules, Diatoms with the largest diameters are found in warm areas and the smallest in cold ones. The correlation coefficient with temperature was found to be + 0.59 and with salinity — 0.59 at 20 m. The inverse correlation with salinity is thought to be due to the topography of the area. It has thus been possible to trace the origin of the *Rizosolenia styliformis* patch. The auxospore formation of *R. alata*.

**Yamada Y.** - Marine Algae from Urup, the Middle Kuriles, Especially from the Vicinity of Iema Bay [*Algae marinae ab* Urup *provenientes in centralibus insulis* Kuriles, *praecipue a propinquitatibus Sinus* Iema]. 10 figs., 10 pls., Scient. Pap. Inst. Algol. Res. Hokkaido Imp. Univ., I, 1, 1-26. Sapporo (1935). **b - 1345**

Enumeration of about 60 species collected near the shore of Iema Bay and belonging to the *Clorophyceae*, *Phaeophyceae* and *Rhodophyceae*. Of these 7 species are described as new as well as several species newly found in Japanese waters. Topography and a short sketch of the general aspect of marine flora at the western end of Urup Island.

**Yamada Y.** - Notes on some Japanese Algae. VI. VII [*Notae de Algis quibusdam Japonicis*]. (In Jap.). 6 figs., 8 pls. o. t., Scient. Pap. Inst. Algol. Res., Hokkaido Imp. Univ., I, 1, 27-35; 2, 135-140. Sapporo (1935-36). **b - 1346**

VI. Ten species, nearly all new, diagnosis in Latin and English.

VII. *Caulerpa filicoides*, *Nereia intricata*, *Hypoglossum minimum*, *Asperococcus bullosus*, *Dictyota alternifida*, *Stilophora rhizoides*, *Gloiderma minutula*, *Haloplegma duperreyi*, *Martensia flabelliformis*, *Murrayella squarrosa* and some other species.

**Yamada Y.** - The Species of *Eucheuma* from Ryûkyû and Formosa [*Species « Eucheuma » a* Ryûkyû *et* Formosa *provenientes*]. 12 figs., 8 pls. o. t., Scient Pap. Inst. Algol. Res., Hokkaido Imp. Univ., I, 2, 119-134. Sapporo (1936). **b - 1347**

Analytical key to the species. Remarks on synonymies and distribution of seven species, descriptions of the more important ones. *E. Okamurai* sp. nov. and *E. cupressoideum* var. *verticillata*.

**Yamada Y. & Inagaki K.** - On *Acrothamnion pulchellum* Yamada (non J. Agardh) from Japan [*De specie « Acrothamnion pulchellum » e Japonia*]. 3 figs., Scient. Pap. Inst. Algol. Res., Hokkaido Imp. Univ., I, 1, 37-40. Sapporo (1935). **b - 1348**

In the shell of *Mytilus* from Mutsu Bay Yamada has found a small red Alga which he has reported as *A. p.* J. Ag. but a comparison with species of Harvey's Herbarium at Dublin reveals great differences.

AA. describe the Japanese specimen as a new spécies: *Antithamnion nipponicum* sp. nov.

# PALAEOBIOLOGIA

**Arambourg C.** - Contribution à l'étude des poissons du Lias supérieur [*Contributio in studendos pisces aetatis Liassicae superioris*]. 6 pl., 10 fig., Ann. Paléontol., XXIV, 1, 1-48. Paris (1935). **b - 1349**

Description et distribution de la faune ichthyologique toarcienne de France. *Eugnathus brousso-lavali* n. sp.

**Arambourg C.** - Un gisement de Poissons toarciens aux environs d'Alès (Gard) [*Depositum Piscium aetatis toarcianae apud* Alès]. C. R. somm. Soc. Géol. Fr., 17-18. Paris (1935). **b - 1350**

**Arambourg C. & Schneegans D.** - Les Poissons fossiles du bassin sédimentaire du Gabon [*Pisces fossiles ad bacinum sedimentarium* Gabon *pertinentes*]. C. R. somm. Soc. Géol. Fr., 170-171. Paris (1935). **b - 1351**

**Asano K.** - New Foraminifera from the Kakegawa District, Tôtômi, Japan [*Foraminifera nova in districtu* Kakegawa, Tôtômi, *in Japonia*]. 2 pls. o. t., Jap. Journ. Geol. & Geogr., Trans. & Abstr., XIII, 3/4, 325-331. Tokyo (1936). **b - 1352**

Description of 16 new species and one new genus.

**Bartenstein H.** - Kalk–Körper von Holothurien in norddeutschen Lias-Schichten [*Calcii corpuscoli Holothuriarum in stratis aetatis Liassicae in Germania sept.*]. 12 Abb., Senckenbergiana, XVIII, 1/2, 1-10. Frankfurt a. M. (1936). **b - 1353**

Die hier vorgefundenen Kalk-körper sind angelhakenartige Bögen, Anker-Platten, Räder, kreuzförmige Kalkplättchen, Stäbchen und durchlochte Kalk-Scheiben. Eine neue Form von Kalk-Rädchen, *Chiridota heptalampra*, ist festgestellt worden.

**Blanc A. C.** - Una spiaggia pleistocenica a « *Strombus bubonius* » presso Palidoro (Roma), [*Ora maritima pleistocenica, specie « Strombus bubonius » formata, apud* Palidoro]. Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis., Mat. Natur. Ser. 6, XXIII, 3, 200-204. Roma (1936). **b - 1354**

È segnalata l'esistenza di un deposito marino pleistocenico contenente la fauna tirreniana a *Strombus bubonius* a quote di circa 20 metri nei pressi di Palidoro che testimonia di un movimento regressivo pretirreniano, analogo a quello già indicato dall'A. nella costa Pontina.

**Blanc A. C.** - Giacimento sottomarino a *Cyprina islandica*. L., nel golfo di Terranova Pausania (Sardegna). [*Depositum submarinum specie « Cyprina islandica » formatum in Sinu* Terranova Pausania *in Sardinia*]. Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Mat. Natur., Ser. 6, XXIII, 9, 695-698. Roma (1936). **b - 1355**

Presenza di un lembo fossilifero di argille a *Cyprina islandica* e *Modiola modiolus* L. nel golfo di Terranova Pausania a circa 3–4 metri sotto il livello del mare.

**Bogdanovitsch A.** - Ueber *Meandroloculina bogatschovi* n. gen., n. sp., eine neue Foraminifere aus den Miocänschichten Transkaukasiens [« *Meandroloculina bogatschovi* » *foraminiferum novum ad formationes miocenicas Transcaucasiae pertinens*]. (In Dtsch., Russ. Rés.). 5 Abb., Bull. Acad. Sc. URSS, Cl. Sc. Mathém. & Natur., 5, 691-696. Léningrad (1935). **b - 1356**

Kurzer Bericht über eine neue Foraminifere, welche Vf. während einer Untersuchung über miocänische Foraminiferen 1931 in Grusien (Transkaukasien) entdeckt hat. Die neue Gattung besitzt interessante und eigenartige morphologische Besonderheiten und erweitert unsere Kenntnisse über eine der interessantesten Familien der Ordnung der Foraminiferen; Kurze Diagnose der beschriebenen Gattung und Art.

**Brotzen F.** - Foraminiferen aus der schwedischen Kreide und ihre Beziehungen zum Sediment und zur Facies [*Foraminifera aetatis cretaceae Suetiae. Quaestio de correlationibus cum sedimentis et faciebus*]. Geol. Fören. Förh., 366-375. Stockholm (1935). **b - 1357**

**Brough J.** - On the Evolution of Bony Fishes during the Triassic Period [*Progressus Teleosteorum aetate Triassica*]. 12 figs., Biol. Rev., XI, 3, 385-405. London (1936). **b - 1358**

The pre-Triassic *Palaeoniscidae* and the Holosteans. The break-up of the *Palaeoniscidae*. The sub-holostean families. The origin of the *Holostei*. The evolution of the *Catopteridae*.

**Bulman O. M. B.** - On the Graptolites prepared by Holm. Part VII. The Graptolite Fauna of the Lower Orthoceras Limestone of Hälludden, Oland, and its Bearing on the Evolution of the Lower Ordovician Graptolites [*De Graptolitis ab* Holm *paratis. Pars. VII*ª. *Fauna graptolitica in stratis calcareis aetatis orthocerassicae inferioris in* Hälludden, *insula* Oeland. *Momentum huius faunae pro accretione Graptolitorum aetatis ordovi-*

*cianae inferioris*]. 4 pls. o. t., 30 figs., 4 tabl., Ark. f. Zool., XXVIII A, H. 3, 17, 1-107. Stockholm (1936). **b - 1359**

Progressive changes in the proximal end of the graptolite Rhabdosome; revised terminology. Description of the fauna. Evolution of the lower Ordovician and Tremadocian Graptolites.

**Chaubet M.** - Sur la présence certaine de Llandovery dans le Gothlandien de la Montagne Noire [*De* Llandovery *eiusque certa praesentia in Gothlandiano regionis* Montagne Noire]. C. R. Acad. Sc., CCII, 4 339-341. Paris (1936). **b - 1360**

L'A. décrit la faune graptolitique découverte dans la tranchée de Gabian et du mas de Sainte-Cécile qui démontre enfin l'existence, jusqu'à ce jour bien hypothétique, du Llandovery (Valentian) dans la Montagne Noire.

**Checchia Rispoli G.** - Illustrazione dei molluschi maestrichtiani della Tripolitania raccolti da I. Sanfilippo. II. Generi *Venericardia, Crassatella, Corbis*. III. Generi *Lucina, Corbula, Cardium*. [*Descriptio molluscorum aetatis maestrichtianae Tripolitaniae collectorum ab* I. Sanfilippo. *II-III*]. Boll. Soc. Geol. It., LIII, 2, 183-194; LIV, 1, 41-50. Roma (1934–35). **b - 1361**

L'A. descrive oltre alle specie già conosciute, alcune nuove, cioè *V. Broilli, C. Clericii, L. Desioi* e *Cardium Martellii*; la *Corbula harpa* viene ora indicata per la prima volta nei terreni del Cretaceo superiore dell'Africa settentrionale.

**Checchia Rispoli G.** - Su di una Echinofauna pliocenica dei dintorni di Lentini [*De quadam Echinofauna aetatis pliocenicae* Lentini (*Siracusis*)]. Atti R. Acc. Naz. Lincei, Rend. Cl. Sc. Fis. Mat. e Natur., Ser. 6, XXIII, 6, 383-386. Roma (1936). **b - 1362**

Si dà conto di una fauna di Echinidi del tutto sconosciuta per la Sicilia orientale ed in base allo studio di essa si conferma il riferimento dei tufi calcarei al pliocene – [A].

**Clerici E.** - Carta dei giacimenti diatomeiferi dei dintorni di Roma [*Tabula depositorum diatomeiferorum apud Romam*]. 1 Cart., f. t. Boll. Soc. Geol. It., LIV, 2, 223-228. Roma (1935). **b - 1363**

L'A. presenta una carta topografica dei dintorni di Roma recante l'indicazione di giacimenti diatomeiferi, ossia di rocce contenenti diatomee, e fornisce notizie bibliografiche sullo studio delle diatomee fossili locali.

**Cushman J.** - Upper Eocene Foraminifera of the Southeastern United States [*Foraminifera aetatis eocenicae superioris in parte sudorientali Americae Statuum Foederatorum*]. 88 pp., 23 pl., U. S. Geol. Surv. Prof. Pap., 181 Washington (1935). **b - 1364**

Description and mostly illustrations of all *Foraminifera* of the general Eastern and Gulf Coastal Plain areas comprising shallow water formations and deep-water phases. 9 new forms are recorded.

**Dalinkevičius J. A.** - On the Fossil Fishes of the Lithuanian Chalk. 1. *Selachii* [*Pisces fossiles ad sedimenta calcaria Lithuaniae pertinentes*. I. *Selachii*]. 5 pls., 7 figs., Vyt. Didž. Univ. Matem.-Gamt. Fak. Darb. (Mém. Fac. Sc. Univ. Vytautas le Grand Univ.), IX, 3, 243-305. (?) (1935). **b - 1365**

Description of about 30 spp. from lowest Cenomanian and Turonian beds of Lithuania. About 9 new species.

**Dechaseaux C.** - - Les Lamellibranches dysodontes du Jurassique de Belgique [*Lamellibranchiata dysodonta aetatis Giurassicae Belgicae*]. 1 fig., 1 pl., Bull. Soc. Géol. Fr., IV, ser. 5, 759-765. Paris (1935). **b - 1366**

**Doncieux L., Dubertret L.. & Vautrin H.** - L'Oligocène et le Burdigalien du désert de Syrie [*De aetate oligocenica deque Burdigaliana aetate deserti Syriaci*]. 1 fig., C. R. Acad. Sc., CCII, 26, 2165-2167. Paris (1936). **b - 1367**

Brève description des affleurements dans le désert de Syrie. L'Oligocène est caractérisé par des Nummulites; le Burdigalien par une faune d'Echinides.

**Dubar G. & Le Maître D.** - Sur des gisements nouveaux de Spongiomorphides et d'Algues dans le Lias et le Bajocien du Maroc [*Deposita nova Spongiomorphidarum et Algarum formata in stratis aetatis Liassicae et Bajocenicae Mauretaniae*]. C. R. Acad. Sc., CCIII, 4, 339-340. Paris (1936). **b - 1368**

Les espèces nouvelles appartiennent aux genres *Heptastylopsis* et *Cylicopsis* (*Spongiomorphida*) et à la famille *Solenoporacéae*.

**Eguchi M.** - Three New Genera of Corals from the Lower Cretaceous of Japan [*Tria genera nova Coralliorum aetatis Cretaceae inferioris Japoniae*]. 4 figs., Proc. Imp. Acad., XIII, 3, 70–72. Tokyo (1936). **b - 1369**

*Miyakosmilia* gen. nov., *Diplogyra* gen. nov. and *Miyakopora* gen. nov.

**Eller E. R.** - Upper Devonian Sponges [*Spongiae aetatis devonianae superioris*]. Science, LXXXIV, 2167, 41. New York (1936). **b - 1370**

Short information on a collection of sponges of the family *Dictyospongidae* found in New York and Pennsylvania and given to the Carnegie Museum.

**Emelyanzev T. & Nalivkin D.** - The Paleozoic of the Yrung-Tumus Peninsula, Mouth of the Khatanga River, Arctic Ocean [*Aetas palaeozoica paeninsulae* Yrung-Tumus *ad accessus fluminis* Khatanga *in Oceano arctico*]. (In Russ., Engl. Summ.). 1 pl., Trans. Arct. Inst., XLI, 63-72. Leningrad (1936). **b - 1371**

Description of the geology and fauna of the Yrung-Tumus Peninsula located between lat. 74° N., long. 111-112° E. Description of the two types of facies of the Paleozoic limestone with the usual Arctic Frasnian fauna. From the described fossil species one: *Liorhynchus taimyricus* is new to science.

**Feruglio E.** - Sedimenti marini nel sottosuolo della bassa pianura Friulana [*Sedimenta marina sub terris vallis Friulanae*]. Boll. Soc. Geolog. It., LV, 129-138. Roma (1936). **b - 1372**

I campioni estratti dai pozzi descritti provano che nel sottosuolo della bassa pianura friulana esiste una potente serie marina (a 168-175 m. nel pozzo di Piancada), con resti di Molluschi di specie viventi, ricoperta da una coltre di alluvioni in parte post-glaciali e in gran parte probabilmente vermiane.

**Fiore M.** - Di un'alga fossile nuova per la « pesciara » di Bolca [*De Alga quadam fossili nova in* pesciara di Bolca]. Rend. Acc. Sc. Fis. e Mat., Ser. 6, V, 137-138. Napoli (1936). **b - 1373**

L'A. comunica di aver riscontrata un'alga nuova per la pesciara di Bolca (*Udotea palmetta*), e fa rilevare le probabili affinità con le alghe che vivono attualmente negli oceani Pacifico e Indiano.

**Floridia G. B.** - Sul rinvenimento di orbitoidi non rimaneggiate nel «flysch» lombardo [*De reinventis orbitoidibus non retractatis in* flysch *longobardiae*]. Boll. Soc. Geol. It., LIV, 2, 253-262. Roma (1935). **b - 1374**

L'A. illustra i terreni cretacico-eocenici delle colline bergamasche, e in particolare il Monte Giglio, sul quale ha rinvenuto Orbitoidi non rimaneggiate. Tra queste ha riconosciuto e descritto: *Orbitoides media* (d'Arch.). *O.* cfr. *geusacica* Leym, e *Lepidorbitoides socialis* Schlum concludendo trattarsi di Maestrichtiano, livello ancora non identificato in Lombardia.

**Geyn W. A. E. van de & Vlerk I. M. van der.** - A Monograph on the *Orbitoididae*, Occurring in the Tertiary of America Compiled in Connection with an Examination of a Collection of Larger Foraminifera from Trinidad [*Monographia de Orbitoididis aetatis tertiariae Americae redacta in dependentia cuiusdam collectionis Foraminiferorum majorum insularum* Trinidad]. 9 pls., 1 fig., Leidsche Geol. Med., VII, 2, 221-272. Leyden (1935). **b - 1375**

Results of morphologic observations and consequent synonymizing of many species of *Foraminifera*, containing the description of larger American *Foraminifera* and the summary of the views of some contemporary European taxonomists on the nomenclature of subgenera.

**Glebovskaya E. M.** - Silurian Ostracodes from the Northwestern Shores of Novaya Zemlya [*Ostracoda siluriana ad litora nordoccidentalia Novae Zemliae pertinentia*]. (Russ., Engl. Rés.). 1 pl., Trans. Arct. Inst., LVIII, 33-43, Leningrad (1936). **b - 1376**

Description of nine forms, two of which are described for the first time: *Leperditia grandis* var. *elongata* and *L. jermolaewi*.

**Glibert M.** - Faune malacologique des sables de Wemmel. 1. Pélécypodes [*Fauna malacologica in formationibus sabulosis* Wemmel. *Pelecypoda*]. 75 figs., 7 pl. h. t., Mém. Mus. R. Hist. Natur. Belgique, 78, 1-241. Bruxelles (1936). **b - 1377**

Ouvrages précédents. Essai de retracer l'histoire de la création de l'étage wemmelien. Partie spéciale: Description et liste de 132 espèces dont 17 nouvelles et répartition par localités. Appendice: Pélécypodes des sables et argiles glauconifères d'Assche. Liste de 50 espèces dont 4 nouvelles. Tableau de la répartition des espèces des sables de Wemmel communes à d'autres horizons. Bibl.

**Gugenberger O.** - Zur Kenntnis einiger unbekannten Arten aus dem Unterlias (Bucklandi-Zone) der Provinz Palermo [*De cognoscendis quibusdam speciebus adhuc ignotis aetatis Liassicae inferioris (in Zona* Bucklandi) *provinciae Panormitanae*]. 1 Taf. a T., Sitz. ber. Akad. Wiss. Wien, Abt. 1, CXLV, 1/2, 47-58. Wien (1936). **b - 1378**

Beschreibung von 15 Arten mit Variationen, von denen die meisten neu sind. (Vgl. auch Anz. Akad. Wiss. 13 und Paleontol. ital. «I Cefalopodi del Lias inferiore della Montagna del Casale»).

**Hanna G. D.** - Notes on Localities of Fossil Diatoms in California [*Notae de Diatomeis fossilibus in California*]. Bull. Soc. Franc. Micr., V, 3, 109–112. Paris (1936). **b - 1379**

Full use of much of the early literature cannot be made because the age and locality of the material discussed cannot yet be determined with any approach to exactness.

**Hatae N.** - The Foraminiferal Fauna in the Limestones of the Heian System in the Vicinity of Neietsu, Kogen-do [*Fauna Foraminiferorum in systemate albaresi nomine* Heian *apud* Neietsu, Kogen-do]. (In Jap.). Journ. Geol. Soc. Jap., 42, 362-363. Tokyo (1935). **b - 1380**

*Fusulina – Fusulinella* and *Palaeofusulina – Schwagerina* zones.

**Hatai K.** - Fossil *Brachiopoda* from the Ninohe District, Mutu Province [*Brachiopoda fossilia in districtu* Ninohe, *Provinciae* Mutu]. 1 pl. o. t., Jap. Journ. Geol. & Geogr., Trans. & Abstr., XIII, 1/2, 71-83. Tokyo (1936). **b - 1381**

The most interesting feature of this fauna is the occurrence of the genus *Macandrevia*, hitherto unknown from the recent seas of Japan. It is the first record in Japan or eastern Asia of this fossil, which is also found in the Pliocene of Italy. Description of seven species, three of which are new.

**Hatai K.** - Neogene *Brachiopoda* from Japan [*Brachiopoda neogenica Japoniae*]. 2 pls. o. t., Jap. Journ. Geol. & Geogr., Trans. & Abstr., XIII, 3/4, 283-324. Tokyo (1936). **b - 1382**

The *Brachiopoda* dealt with here are from geographically isolated localities which are enumerated here. 26 species are described, 9 of which are new.

**Hatai K.** - A Preliminary Note on the Tertiary Brachiopod Fauna of Japan [*Nota prior de fauna tertiaria Brachiopodorum*]. 3 figs., Proc. Imp. Acad., XII, 4, 100-102. Tokyo (1936). **b - 1383**

The Japanese Brachiopod fauna is very rich in the surrounding seas as well as in the Neogene rocks of Japan. The faunal sequence of the fossil forms is briefly stated here.

**Häusel W. & Richter E.** - Fundstellen im Unterkoblenz (Unter-Devon) des östlichen Taunus (Blatt Usingen- Fauerbach) [*Locus in quo reperiuntur fossilia in* Unterkoblenz (*Periodus devoniana inferior*) Taunus *orientali*]. 7 Abb., Senckenbergiana, X VIII, 5/6, 296-307. Frankfurt a. M. (1936). **b - 1384**

Verzeichnis mit Bemerkungen einer reichhaltiger Fauna von Trilobiten, Styliolinen, Orthoceren und anderen Schaltieren.

**Hayasaka I.** - A *Discocyclina*- Limestone Exposed Near the Peak of Minami-Daibu in Takao Prefecture, Taiwan [*Calcar, specie «Discocyclina» formatum, in cacumine inventum* Minami-Daibu *in Praefectura* Takao, Taiwan]. 2 figs., Proc. Imp. Acad., XI, 8, 329-330. Tokyo (1935). **b - 1385**

Description of a new locality where *Discocyclina* and *Camerina*, together with fragments of some other organisms like crinoids have been found.

**Heintz A.** - *Holonema*-Reste aus dem Devon Spitzbergens [«*Holonema*» *residua a strato devoniano regionis* Spitzbergen]. 1 Taf. a. T., Norsk Geol. Tidsskr., XV, 115-121. Oslo (1935). **b - 1386**

Das hier beschriebene Material ist teilweise von norwegischen (1925 und 1928) und teilweise von schwedischen Expeditionen (1910) in einer Schlucht «Fiskekløft» im inneren Teile des Isfjords eingesammelt. Beschreibung und Versuch zur Bestimmung von 5 *Holonema*- Reste. Die Familie *Holonemidae*.

**Heritsch F.** - A New Species of *Waagenophyllum* from the Permian of the Glass Mountains, Texas [« *Waagenophyllum* » *species nova ab aetate Permianica proveniens, regionis* Glass Mountains, *in* Texas]. 1 fig., Amer. Journ. Sc., XXXI, 182, 144-148. Hew Haven, Conn. (1936). **b - 1387**

The specific description is followed by a review of the distribution of all known species of the coral genus *Waagenophyllum*. This shows the genus to be highly characteristic of the Middle and Upper Permian. The Rugose corals are then used as the basis of a general scheme of onation and correlation of the Permian of the world. [A.].

**Heritsch F.** - A New Rugose Coral from the Lower Permian of Texas, with Remarks on the Stratigraphic Significance of certain Permian Coral Genera [*Corallium novum rugosum a strato permianico inferiore, regionis* Texas *proveniens, cum observationibus de momento stratigrafico quoad genera quaedam permianica Coralliorum*]. 2 pls., Amer. Journ. Sc., XXXII, 188, 134-144. New Haven, Conn. (1936). **b - 1388**

*Palaeosmilia schucherti* n. sp. Diagnosis, general description, stratigraphic remarks .A. proves that a zoning zof the Permian may be made by means of the rugose corals.

**Jacquet F.** - Sur l'âge éocène inférieur des couches phosphatées du Sénégal [*De aetate eocenica inferiore in stratis phosphatatis Senegalensibus*]. C. R. Acad. Sc., CCII, 4, 335-337. Paris (1936). **b - 1389**

L'A. donne la description d'une série continue qui s'étend à travers la presqu'île du Cap Vert et où toutes les couches à phosphates sont représentées, depuis le Crétacé supérieur à *Physaster inflatus* de Dakar d'une part et depuis l'Eocène inférieur à *Linthia Delanouei* de Popenguine d'autre part, jusqu'aux calcaires à *Nummulites gizehensis* du Cayor.

**Jacquet F.** - Sur l'Eocène moyen à Nummulites du Sénégal [*De eocene medio Senegalensi Nummulitibus formato*]. C. R. Acad. Sc., CCIII, 5, 377-379. Paris (1936). **b - 1390**

L'A. enumère les nombreuses espèces trouvées dans ces couches en donnant aussi, au moins provisoirement, l'ordre chronologique des principaux fossils.

**Jones A. O.** - On the Silurian Corals: *Cyathophyllum shearsbyi* and *Heliophyllum yassense* [*De corallis aetatis Silurianae: « Cyathophyllum shearsbyi » et « Heliophyllum yassense »*]. 3 pls. Mem. Queensl. Mus., XI, 1, 53-58. Queensland (1936). **b - 1391**

Revision of the Australian Silurian corals based on the examination of the types of European genera *Cyathophyllum* conducted to recognize a separate genus for the Australian form, *Hercophyllum* g. n., whose genotype is *Cyathophyllum shearsbyi*. Description of *H. shearsbyi*, as well as of *Heliophyllum yassense* Eth. fil. which must be referred to the genus *Xylodes* whose place lies in the series between those two species.

**Kanehara K.** - Neogene Shells from South Chôsen (Korea) [*Mollusca neogenica regionis* Chôsen *merid. in* Korea]. 1 pl. o. t., Jap. Journ. Geol. & Geogr., Trans. & Abstr., XIII, 1/2, 31-37. Tokyo (1936). **b - 1392**

The tertiary rocks along the Gulf of Geijitsu, Keishô-Kokudo, S. Chôsen, are divided into two series, the lower of which contains poorly preserved fossils of marine shells. 7 species are described, 3 of which are new.

**Kilian C. & Monod Th.** - De la découverte, dans le Sahara occidental de microorganismes fossiles qui constitueraient un repère d'âge et de nature marine pour la série du Koundeloungen (Congo) [*De inventis in* Sahara *occidentali microrganismis fossilibus de quibus est consilium si constituere possint inventionem quamdam aetatis et naturae marinae pro serie nomine* Koundeloungon *in regione Congolensi*]. C. R. Acad. Sc., CCIII, 5, 381–383. Paris (1936). **b - 1393**

L'Analyse des échantillons de calcaires à corpuscules globuleux, reportée ici, fait présumer qu'il s'agit des organismes du type des Siciliacées constituant une formation marine probablement d'âge carbonifère inférieur ou dévonien. Remarques de M. Lucien Cayeux au sujet ce cette note.

**Kiparisova L.** - Upper Triassic Pelecypods from the Kolyma-Indighirka Land. [*Pelecypoda aetatis Triassicae Superioris a regione provenientia* Kolyma-Indighirka]. 1 map., 5 tables o. t., Trans. Arct. Inst., XXX, 71-136. Leningrad (1936). **b - 1394**

Results of the study of three paleontological collections of pelecypodes, gathered in 1929-1930 during the Kolyma Geological Expedition by S. Obrutschev, and by the same scientist in 1926, as well as of a collection made in 1891 by J. Chersky in Tas-Kystabyt Range. The following forms are new to science: *Pseudomonotis* sp. n. ind., *P. scutiformis* var. *typica* var. n., *P. scutiformis* var. *kolymica* v. n., *Oxytoma omolonense* sp. n., *Halobia obruchevi* sp. n., *Gryphea arcuataeformis* sp. n., *Entolium* (*Syncyclonema*) sp. n. ind. *Pleurophorus* sp. n. ind.

**Kobayashi T.** - The Cambro- Ordovician Formations and Faunas of South Chôsen. Palaeontology. Part I: Middle Ordovician Faunas. Part II. Lower Ordovician Faunas [*De formationibus cambro–ordovicianis deque variis faunis regionis* Chôsen *meridionalis. Palaeontologia. Pars Iª. Faunae medio-ordovicianae. Pars IIª. Faunae inferiores ordovicianae*]. 52 pls., Jour. Fac. Sc. Imp. Univ., Sect. 2, III, Pt. 8, 329-335; Pt. 9, 521-585. Tokyo(1934). **b - 1395**

Lists and descriptions of the species, comparison with other faunas. About 18 new genera with genotypes are recorded.

**Kobayashi T.** - The Cambro-Ordovician Formations and Faunas of South Chôsen, Palaeontology. Part III. Cambrian Faunas of South Chôsen with a Special Study on the Cambrian Trilobite Genera and Families [*De formationibus Cambro–ordovicianis deque faunis diversis regionis* Chôsen *meridionalis. Palaeontologia. Pars IIIª. Faunae cambrianae regionis* Chôsen *meridionalis cum studio quodam speciali de generibus et familiis cambrianis quoad Trilobita*]. 33 figs., 24 pls., Journ. Fac. Sc. Imp. Univ., Sect. 2, IV, Part 2, 49-344. Tokyo (1935). **b - 1396**

*Cystoidea, Brachiopoda, Gastropoda, Conularida, Cephalopoda, Trilobita, Incerta sedis* together 131 species from 13 fossil zones. About 75 new species and varieties, and 34 new genera are recorded.

**Kobayashi T.** - Suggestions for the natural Classification and benthonic Adaptation of early uncoiled Nautiloids [*Dictamina pro naturali distributione in classes et adaptatione benthonica Nautiloideorum veterum*]. Proc. Imp. Acad., XI, 10, 435-437. Tokyo (1935). **b - 1397**

Critical remarks on Hyatt's classification. Importance of the general organisation for the classifications of early uncoiled Nautiloids; five groups are suggested: Ellesmereoceroids, Endoceroids, Piloceroids, Orthoceroids and Actinoceroids.

**Kobayashi T.** - *Coreanoceras*, one of the most specialized Piloceroids and its benthonic Adaptation [*Agitur de « Coreanoceras », quae species est in Piloceroidis particularissima relate ad eius adaptationem benthonicam*]. 2 pls. o. t., Jap. Journ. Geol. & Geogr., Trans. & Abstr., XIII, 1/2, 185-195. Tokyo (1936). **b - 1398**

Referring to his previous description of this peculiar cephalopod found in the Wolungian (or late Lower Ordovician) Shorin bed, North Chôsen (Bull. Geol. Surv. Chôsen, XI, 1, 45, 1931) A. here corrects some previous observations giving also further details of its shell-structure. Some conclusions as to the life habits of these fossil nautiloids are drawn.

**Lambert J.** - Echinides crétacés d'Espagne [*Echinoidea aetatis cretaceae Hispaniae*]. 2 lam. Bol. Soc. Españ. Hist. Nat., XXXV, 10, 513-526. Madrid (1935). **b - 1399**

Echinides des provinces de Burgos, Palencia et Leon: *Dorocidaris ciryi* n. sp., *Micraster burgiensis* n. sp., *Hemiaster tubillensis* n. sp., *Periaster ciryi* n. sp., *Tetragramma giganteum* n. sp., *Orthopsis royoi* n. sp., *Botriopygus royoi* n. sp.

**Lami R.** - Sur la présence de cupules subfossiles d'oursins sur le littoral du Miñho (Portugal) [*De fossulis fossilibus a specie « Paracentrotus » formatis ad litora regionis* Miñho (*in Lusitania*)]. 3 fig., Bull. Lab. Marit. Dinard, 16, 2-6. Rennes (1936). **b - 1400**

La côte de Miñho est presque entièrement constituée en granite. Présence de nombreuses petites cupules fossiles situées au dessus du niveau actuel des hautes mers. Elles sont identiques aux cupules creusées, à un niveau plus bas, par les oursins actuels du genre *Paracentrotus*.

**Laporte L. J.** - Au sujet de la localisation géographique du dépôt diatomifère de Santa Monica et de quelques autres dépôts californiens [*De localisatione geographica quoad depositum diatomiferum in* Santa Monica *aliaque deposita Californiensia*]. 1 fig., Bull. Soc. Franc. Micr., V, 3, 106-109. Paris (1936). **b - 1401**

Importance pour apprendre l'évolution géologique et paléontologique du Continent Américain des dépôts fossiles diatomifères de cette région. Leur description doit être effectuée avec une grande précision géographique pour ne pas donner lieu à des remarquables erreurs.

**Lecompte M.** - Revision des Tabulés Dévoniens décrits par Goldfuss [*Reinspectio sediminorum aetatis Devonianae a* Goldfuss *descriptorum*]. 14 pl., Mém. Mus. R. Hist. Natur. Belgique, LXXV, 3-111. Bruxelles (1936). **b - 1402**

Description de 16 espèces du genre *Pachypora*, leur structure interne et caractères externes, examen au microscope des structures des sécrétions calcaires qui constituent le polypier.

**Lefébure P.** - Diatomées contenues dans le dépôt fossile Marin de Saint-Laurent-la Vernède (Gard) [*De Diatomeis in deposito fossili marino in* Saint-Laurent, la Vernède].3 figs., 2 pl., Bull. Soc. franç. Micr. IV, 2, 44-57. Paris (1935). **b - 1403**

Le gisement est situé près du pont sur la Tave et sa composition est celle d'une argile fine dont la partie siliceuse contient des spicules d'éponge, des Radiolaires, des Silicoflagellés et des Diatomées. Ce dépôt présente un mélange de formes de Diatomées d'eaux douces et marines dont la majorité ne se retrouvent plus dans les mers actuelles; il a donc dû se former dans des lagunes où l'eau de mer et l'eau douce venaient s'établir alternativement. Liste et description des Diatomées rencontrées.

**Leriche M.** - Sur l'importance des Squales fossiles dans l'établissement des synchronismes de formations à grandes distances [*De squalis fossilibus eorumque momento pro synchronismo formationum maximis spatiis*]. 10 cartes., Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 739-773. Bruxelles (1936). **b - 1404**

Répartition fort vaste aux époques géologiques des squales qui ont pour la géologie une importance capitale, car ils permettent d'établir des synchronismes entre les formations fort éloignées les unes des autres. La denture des squales et les erreurs commises dans l'établissement des espèces fossiles. Les types de Louis Agassiz. L'aire de dispersion de quelques espèces tertiaires et la valeur stratigraphique des squales fossiles. Dix cartes de la distribution stratigraphique et géographique d'*Odontaspis macrota*, *O. cuspidata*, *O. acutissima*, *Lamna cattica*, *Oxyrhina hastalis*, *O. retroflexa*, *Carcharodon megalodon*, *C. Rondeleti*, *Galeocerdo aduncus* et *Hemipristis serra*.

**Levereault Ph.** - The segmental Condition in the Trunk of Trilobites [*Trilobita. Quaestio de trunci segmentis*]. 5 figs., Amer. Journ. Sc., XXXI, Ser. 5, 185, 386-393. New Haven. Conn. (1936). **b - 1405**

Secondary segmentation is one of the most ancient and fundamental characteristics of arthropods. Trilobites had an advanced condition of secondary segmentation as longitudinal sections revealed. Consideration of the limitation imposed upon them by sclerotization places emphasis upon the fundamental rôle secondary segmentation has had in the evolution of the arthropods. (A. abstr.).

**Lipparini T.** - Molluschi delle panchine pleistoceniche di Zuara, Ras-el-Msid e Sidi Mesri in Tripolitania [*Mollusca in contignationibus pleistocenicis in Tripolitania*]. Boll. Soc. Geol. It., LIV, 1, 93-106. Roma (1935). **b - 1406**

La costa della Tripolitania offre delle spiaggie sollevate intorno a quota 11, contenenti una fauna a tipo « caldo » del piano Tirreniano. L'A. descrive le forme riscontrate di cui la maggior parte è ancora vivente nel Mediterraneo.

**Lipparini T.** - Nummuliti dell'Oligocene scandianese (Reggio Emilia) [*Nummulites aetatis oligocenicae Scandianensis*]. 1 tav., R. Acc. Sc. Torino, LXXI, 2, 236-240. Torino (1936). **b - 1407**

Confronto stratigrafico tra la formazione oligocenica dell'Appennino di Reggio Emilia e quelle della Liguria e del Piemonte. Descrizione di *Nummulites Bouillei* e *N. intermedius*.

**Maillieux E.** - La faune et l'âge des Quartzophyllades Siegeniens de Longlier [*De fauna et aetate quoad Quartzophyllada siegeniana* τοῦ Longlier]. 32 figs. en 3 pls., tabls., Mém. Mus. R. Hist. Natur. Belgique, LXXIII, 1-140. Bruxelles (1936). **b - 1408**

Description de la faune fossile: *Anthozoa*, *Crinoidea*, *Annelida*, *Bryozoa*, *Brachiopoda*, *Gasteropoda*, *Pelecypoda*, *Cephalopoda*, *Trilobita*. Comparaison de la faune des couches du facies de Longlier à celle des divers horizons du Siegenien de la Belgique, rapport entre la faune de Longlier et celle des couches d'Augustental.

**Maillieux E.** - La faune des schistes de Matagne (Frasnien supérieur) [*De fauna in schistis regionis* Matagne (*Aetas Frasniana superior*)]. 1 pl. h. t., Mém. Mus. R. Hist. Natur. Belgique, LXXVII, 1-70. Bruxelles (1936). **b - 1409**

Caractéristique général des schistes de Matagne considérés comme le sommet de l'étage frasnien. Deux hypothèses sur la formation: mer profonde ou « Flachsee » (mer peu profonde). Extension verticale des éléments principaux de la faune de Matagne. Extension géographique du niveau de l'assise de Matagne. L'Assise de Matagne dans l'Ardenne et ses gisements fossilifères. La faune de l'assise de Matagne. *Coelenterata, Echinodermata, Vermes, Brachiopoda, Mollusca, Ctenobranchia, Opisthobranchia, Arthropoda (Crustacea).*

**Marie P.** - Sur la microfaune du Crétacé moyen et supérieur à facies bathyal du Nord Marocain [*De microfauna aetatis Cretaceae superioris et mediae, facie bathyalica, in Mauretania sept.*]. 1 tabl., C. R. Acad. Sc., CCII, 2, 145-148. Paris (1936). **b - 1410**

L'A. résume dans un tableau la répartition stratigraphique des principaux genres des foraminifères microscopiques du Crétacé moyen et supérieur, et démontre, l'existence d'affinités étroites entre les faunes crétacées de l'Afrique du Nord et celles de l'Amérique Centrale.

**Marie P.** - Sur la microfaune crétacée du sud-est du Bassin de Paris [*De microfauna aetatis Cretaceae regionis sudorientalis bacini Parisiensis*]. 1 tabl., C. R. Acad. Sc., CCIII, 1, 97-100. Paris (1936). **b - 1411**

L'A. résume dans un tableau les recherches qu'il a entreprises sur les Foraminifères du centre et du sud-est du Bassin de Paris et qui lui ont permis d'établir une échelle stratigraphique assez précise des genres plus importants. Le tableau donne des informations suffisantes pour faciliter l'étude des formations crétacées et permet de constater que chaque étage est caractérisé par une association faunistique spéciale.

**Mathieu G.** - Sur l'âge givétien des marbres de la Ville–Dé-d'Ardin (Deux Sèvres) [*De aetate Givetiana marmorum in* Villa-Dé-d'Ardin]. C. R. Acad. Sc., CCII, 18, 1523-1525. Paris (1936). **b - 1412**

L'A. communique ses recherches faites en vue de fixer exactement la position stratigraphique et l'âge des marbres de la Ville-Dé-d'Ardin, sur la base de l'examen des brachiopodes qui y sont contenus. Constatation inattendue de la présence de Givétien; explications.

**Miller A. K.** - Illustrated Card Catalog of North American Devonian Fossil: Unit 7 B. *Ammonoidea* [*Elenchus pictus fossilium americanorum septemtrionalium. Ammonoidea*]. Wagner Free Inst. of Science. Philadelphia (1936). **b - 1413**

This first unit consists of 50 cards of all the described species of American Devonian Ammonites except four that belong to unnamed genera which are being established in a monograph to appear.

**Miloradovitsch B. V.** - Some *Spiriferidae* from Middle and Upper Carboniferous of Timan [*Spiriferidae quaedam aetatis carboniferae mediae et superioris regionis* Timan]. (In Russ., Engl. Summ.). 5 figs., tables, 6 pls. o. t., Trans. Arct. Inst., XXX, 5–70. Leningrad (1936). **b - 1414**

Description of a collection from the Middle and Upper Carboniferous of the Timan, containing the following two genera: *Spirifer* Sow. and *Choristites* Fisch. The first is represented by the two species: *Spirifer cameratus* Mort. and *Sp. licharevi* sp. nov. The genus *Choristites* Fisch is represented by a larger number of species, i. e. *Ch. mosquensis myatschkowensis* Frdks., *Ch. uralicus* Leb., *Ch. priscus* Eichw. *Ch. laticostateformis* sp. nov., *Ch. ventricosus* sp. n., *Ch. ussensis amplus* subsp. n., *Ch. ussensis timanicus* subsp., n., *Ch. gravis* sp. n.

**Miloradovitsch B. V.** - Lower Permian Fauna from the Island Mejdusharský [*De fauna in strato Permiano inferiore insulae* Mejdusharsky]. (In Russ., Engl. Summ.). 4 tabl. o. t., Trans. Arct. Inst., XXXVII 37-82. Leningrad (1936). **b - 1415**

The fauna described here, about 20 species (*Brachiopoda, Scaphopoda* and *Gastropoda*), is rather scarce and uniform, which shows that the conditions of this part of the sea were not normal probably forming the bordering zone of the cold water anthracolitic sea of Northern Siberia. Three new species are determined: *Lingula arctica* sp. nov., *Spirelytha magna* sp. nov. and *Productus* (*Linoproductus* ?) *alferovii* sp. n.

**Morellet L. & J.** - Faune des sables à *Nummulites variolarius* de Lévignen (Oise) [*Sabularum fauna in regione* Lévignen, *speciem « Nummulites variolarius » continentium*]. Bull. Mus. Nat. Hist. Natur., VIII, Ser. 2, 3, 222-310. Paris (1936). **b - 1416**

Liste des espèces appartenant aux Vertébrés, Foraminifères, Coelentérés, Echinides, Bryozaires, Crustacés, Pélécypodes, Scaphopodes, Gastropodes, Céphalopodes, Algues calcaires (Dasycladacées). Analyse de la faune.

**Moy-Thomas J. A.** - The Structure and Affinities of *Chondrenchelys problematica* Tr. [*De structura et affinitatibus speciei « Chondrenchelys problematica »*]. 2 pls., 12 figs., Proc. Zool. Soc. London, 2, 391-403. London (1935). **b - 1417**

Description of the pectoral fins, and girdles, teeth and denticles based on reexamination of Traquair's material. This Scottish Carboniferous genus is probably the only known representative of a very primitive group of sharks, possibly descended from a common ancestor of both *Holocephala* and the *Pleuracanthii*.

**Musper K. A. F. R.** - Einige Bemerkungen zur fossilen Fischfauna von Padang (Sumatra) [*Observationes de fauna ichthyca fossili regionis* Padang (*Sumatra*)]. De Ing. in Ned. Ind. IV. Mijnb. en Geol., 3, 70-74. Batavia (1936). **b - 1418**

**Nalivkin D. V.** - Silurian and Devonian Fauna of the Northern Island of Novaya Zemlja [*De fauna Siluriana et Devoniana insulae septentr. Novae Zemliae*]. (In Russ. and Engl.). 2 pls., Trans. Arct. Inst., LVIII, 1-32. Leningrad (1936). **b - 1419**

Lists of species of both faunas, comparison with surrounding regions. The paleography of the Arctic Silur and Devon. New forms: *Conchidium novosemelicum* sp.n., *Athyris polaris* sp. n.

**Neviani A.** - Il corallo rosso fossile [*Corallium rubrum fossile*]. 1 fig., Boll. Soc. Geol. It., LIV, 1, 61-66. Roma (1935). **b - 1420**

L'A. passa in rassegna ventisette pubblicazioni nelle quali si trattò del corallo rosso fossile, comprese le specie affini, o considerate come tali. Conclude che il *Corallium pallidum* Micht., *C. sepultum*, Micht., *C. sulcatum* Micht., *C. inaequale* Micht. e fors'anche il *C. Becki* Lyell, sono da ritenersi come sinonimi, ed al più come varietà e mutazioni del *C. rubrum* Bauhin.

**Nikiforova A. I.** - Some lower Permian Bryozoa from Novaya Zemlya and Spitzbergen [*Bryozoa quaedam aetatis Permianicae inferioris Novae Zemliae*]. 3 pls. o. t., 2 figs., tabl., Trans. Arct. Inst., LVIII, 113-141. Leningrad (1936). **b - 1421**

Though there seems to be an abundance of *Bryozoa* in these deposits the present study is nearly the first one appeared on *Bryozoa* from this region of the Earth. Ten species of different genera are described.

**Nikiforova O.** - On the Finding of *Spirifer medius* Lebedeff in Novaja Zemlya [*De reinventa specie « Spirifer medius » in Nova Zemlia*]. 11 figs., Trans. Arct. Inst., LVIII, 109-112. Leningrad (1936). **b - 1422**

The presence of *Spirifer medius*, a typical form of the Lower Tournaisian, in Novaja Zemlya, is important for paleogeographic reconstructions.

**Nomura S. & Hatai K.** - On the Variation of Certain Internal Features of the Fossil *Terebratalia coreanica* from Hokkaidô [*De variationibus aliquarum peculiaritatum internarum speciei « Terebratalia coreanica » fossilis in* Hokkaidô]. 5 figs., Venus, V, 1, 10-13. Kyoto (1935). **b - 1423**

Report on *T. coreanica* (Adams and Reeve) which is a common brachiopod found in the seas around the northern part of Japan, as well in Miocene and even pre-Miocene formations, especially in the south-western part of Hokkaido, where the fossil forms often attain larger sizes than those of the recent form and show a wide range of variation in the external as well as internal features of the isolated valves.

**Nomura S. & Hatai K.** - On some Species of the Genus *Arca* from the Neogene of Northeast Honsyû, Japan [*De speciebus quibusdam generis « Arca » aetatis neogenicae in regione* Honsyû *nord-orientali, in Japonia*]. 2 pls. o. t., Jap. Journ. Geol. & Geogr., XIII, 1/2, 63-70. Tokyo (1936). **b - 1424**

Four forms are considered here which have not been recorded as living in the seas surrounding Japan. One is new, *Arca tatunokutiensis* sp. n.

**Nomura S. & Hatai K.** - A Note on Some Fossil *Mollusca* from Tugaru Peninsula, Northeast Japan [*Nota de quibusdam Molluscis fossilibus paeninsulae* Tugara *in Japonia nord–orientali*]. 1 pl., Jap. Journ. Geol. & Geogr., XIII, 3/4, 277-281. Tokyo (1936). **b - 1425**

Description of 8 species, of which 5 are new and 3 indetermined.

**Nomura S. & Hatai K.** - A Note of the Fossil Marine Fauna from Okinawa-Zima, Ryûkyu Group [*Nota de fauna marina fossili in Insulis*, Ryûkyu]. (In Engl., Jap. Rés.). Journ. Geol. Soc. Jap., XLIII, 336-339. Tokyo (1936).

( — ) Trans. Proc. Paleont. Soc. Jap., 3, 39-42. Tokyo (1936). **b - 1426**

Report on *Thyasira nipponica*, *Pecten praesignis*, *Coronula diadema* and other shells and Echinoids found near the city of Naha.

**Oimikado T. & Ikebe N.** - On the Fossil Specimen of *Macoma calcarea* (Gmelin) from Kazusa [*De exemplare quodam fossili « Macoma calcarea » a regione* Kazusa *provenienti*]. (In Jap.). 6 figs., Venus, V, 1, 14-17. Kyoto (1935). **b - 1427**

Comparison between the pallial sinus of fossil *M. calcarea* from the upper part of Tôgane silt bed of the uppermost Pliocene, and that of *M. masuta* and *M. tokyoensis*.

**Petrbok J.** - Meeres-Conchylien in den jüngsten holozänen Torfschichten aus Island [*Conchae marinae in stratis recentioribus aetatis holocenicae in Islandia*]. Arch. Moll. k., 67, 81-83. Frankfurt. a M. (1935). **b - 1428**

Auffallendes Vorkommen von *Astarte borealis*, *Modiola modiola* und *Buccinum undatum* in einer reinen Vegetationsschicht.

**Petrbok J.** - Die Bedeutung der holozänen Molluskenfauna bei Konstantin Monastyr am Meere für die stratigraphische Chronologie des bulgarischen Schwarzen Meer- Ufers [*Significatum faunae Molluscorum aetatis holocenicae apud* Konstantin Monastyr *ad mare, pro chronologia stratigraphica litorum Ponti Euxini*]. Arch. Moll. k., 67, 161-164. Frankfurt a. M. (1935). **b - 1429**

Die Befunde von 9 *Hyalina*– Arten im weissen Travertin- Lehm weisen auf ein warmes feuchtes Klima hin. Von den zwei übrigen Schichten ist eine arm an Mollusken, während die andere (die subboreale *Littorina*- Schicht) einer Steppenfauna ähnlich ist.

**Perruche L.** - Sur quelques Microfossiles du Jurassique [*De microfossilibus aetatis Giurassicae*]. 2 pl., Bull. Soc. Franç. Micr., V, 1, 23-25. Paris (1936). **b - 1430**

Echantillon montrant de nombreux rostres de Belemnites d'origine marine, des Foraminifères, des Algues et un nombre considérable de restes organiques indéterminables.

**Pfender J.** - Sur un Foraminifère nouveau du Bathonien des Montagnes d'Escreins (H.-Alpes): *Kilianina Blancheti* nov. gen., nov. sp. [*De Foraminifero novo provenienti a Bathoniano montium* d'Escreins: *« Kilianina Blancheti »*]. 2 pl. h. t., Trav. Lab. Géol. Fac. Sc. Univ. Grenoble 1934-35, XVIII, 121-130. Grenoble (1936). **b - 1431**

Historique. Description de l'espèce. Rapports et différences.

**Pieragnoli L.** - Fossili Eocenici d'Egitto raccolti da Figari Bey con alcuni altri dell'Arabia Petrea [*De fossilibus eocenicis Aegyptianis collectis a* Figari Bey. *Adiunguntur alia fossilia Arabiae Petreae*]. Boll. Soc. Geol. It., LIII, 2, 161-190. Roma (1935). **b - 1432**

Studiando una raccolta di fossili l'A. ha trovato 11 nuove specie e cioè cinque *Ostrea*, una *Chama*, una *Volutilithes*, tre *Helix*, un *Planorbis*.

**Piveteau J.** - Ressemblances des faunes ichthyologiques du Groenland et du Spitzberg avec celle de Madagascar au Trias inférieur [*Similitudines inter faunas ichthyologicas Groenlandiae regionisque* Spitzberg *et faunas insulae* Madagascar *aetatis Triassicae inferioris*]. C. R. somm. Soc. Géol. Fr., 113-114. Paris (1935). **b - 1433**

**Principi P.** - I terreni terziari della conca aquilana [*De locis aetatis tertiariae in valle urbis* Aquila]. 3 fig., Boll. Soc. Geol. It., LIV, 1, 11-40. Roma (1935). **b - 1434**

Gli strati dell'Eocene sono caratterizzati dalla presenza di Nummuliti e Ortofragmine, mentre nell'Oligocene questi generi si trovano associati a numerose specie di Lepidocicline, le quali proseguono, insieme a forme di Miogypsine, di Amphistegine e di Operculine nel Miocene inferiore e medio. [A.].

**Ramaccioni G.** - Il Lias medio di monte Cucco nell'Appennino centrale [*Aetas Liassica media in monte* Cucco *Appenninorum Centralium*]. Boll. Soc. Geol. It., LV, 1, 169-189. Roma (1936). **b - 1435**

Nella presente nota l'A. prende in esame alcune forme di Cefalopodi, Brachiopodi e Gasteropodi raccolti dal dott. Casella nel Monte Cucco (Appennino Centrale) determinando 28 specie e una nuova varietà, appartenenti al Lias medio.

**Rathbun M. J.** - A new Xanthid Crab from the Cretaceous of New Jersey [« *Xanthias* » *novum a strato Cretaceo* New Jersey *proveniens*]. 1 fig., Proc. Acad. Natur. Sc. Philadelphia, 1935, LXXXVII, 165-166. Philadelphia (1936).
**b - 1436**

Description and type locality of *Xanthias lenolensis* n. sp.

**Rein E. F.** - Paleozoic Ostracodes from the North-Eastern Shores of Novaya Zemlja [*Ostracoda Palaeozoica litorum nordorientalium Novae Zemliae*]. (In Russ. and Engl.). 41 figs., 2 pls., 1 tabl., Trans. Arct. Inst., LVIII, 45-90. Leningrad (1936).
**b - 1437**

The predominating form in this collection (about 30 species) is *Leperditia*, represented by 15 species, 8 of which are new. List of the vertical distribution of these Ostracoda and table indicating their age.

**Resser C. E.** - Nomenclature of some Cambrian Trilobites [*Trilobita quaedam aetatis Cambrianae. Quaestio de nomenclatura*]. Smithson. Misc. Coll., Publ. 3295, XCIII, 5, 1-46. Washington D. C. (1935).
**b - 1438**

Notes on 121 species arranged alphabetically by genera. 31 new species and 14 new genera are presented. For some more important forms diagnosis, comparisons genotype and range are given.

**Resser C. E.** - Second Contribution to Nomenclature of Cambrian Trilobites [*Trilobita aetatis Cambrianae. Secunda contributio in eorum nomenclaturam*]. Smithson. Misc. Coll., Publ. 3383, XCV, 4, 1-29. Washington (1936).
**b - 1439**

Nomenclatural changes necessary for certain Cambrian species with discussion on several Atlantic Province genera and species. About 70 species are listed of which there are 8 new genera and 18 new species.

**Richards L. G. Jr.** - Revision of some California Species of *Astrodapsis* [*Reinspectio aliquarum specierum Californiensium « Astrodapsis »*]. 7 pl., Trans. San Diego Soc. Nat. Hist., VIII, 9, 59-66. San Diego (1935).
**b - 1440**

The Miocene Echinid *Astrodapsis antiselli* Kew (not Conrad) is correctly identified and redescribed as *A. salinasensis* n. nom. The true *A. antiselli* Conrad was called *A. Arnoldi* by Clark, Twitchell and Kew.

**Richter E.** - Ein *Proetus* im Hunsrückschiefer (Tril., Devon). [« *Proetus* » *a stratis* τοῦ Hunsrück *proveniens*]. 1 Abb., Senckenbergiana, XVIII, 1/2, 79-82. Frankfurt a. M. (1936).
**b - 1441**

Dieser neue Fund ist aus Interesse, da Proetiden im Unter- Devon sehr selten sind und der neue Typus ausserdem 9 Rumpfringe besitzt. *Proetus* (*Cornuproetus*) *hunsrückianus* n. sp. Diagnose, Beschreibung, Beziehungen.

**Rutten L.** - Roches et fossiles de l'Ile Pisang et de la Nouvelle-Guinée [*Saxa et fossilia insulae* Pisang *et Novae Guineae*]. 4 pl. h. t., Bull. Mus. R. Hist. Natur. Belgique, XII, 10, 1-14. Bruxelles (1936).
**b - 1442**

Rapport sur une collection obtenue pendant le voyage de LL. AA. RR. le Prince et la Princesse Léopold de Belgique en 1929. Ile Pisang: Calcaires fins, organogènes, fragments de petits foraminifères ainsi que des foraminifères entiers des familles *Globigerinidae*, *Textularidae* et *Lagenidae*. - Nouvelle-Guinée (Environs de la Baie du Triton et la région montagneuse au S. de Manokwari): Lépidocyclines, moules de Gastropodes, Foraminifères et Coraux.

**Saito K.** - Older Cambrian Brachiopoda, Gastropoda etc. from North-western Korea [*Brachiopoda, Gastropoda, etc. antiquae aetatis Cambrianae a Koreana regione nord-occidentali provenientia*]. 3 pls., Journ. Fac. Sc. Imp. Univ. Tokyo, sect. 2, IV, 3, 345-367. Tokyo (1936).
**b - 1443**

Description of about 18 species, 3 of which are new.

**Salopek M.** - Ueber die Zephalopodenkalke des Greguričbrijeg in der Samoborska gora [*De formationibus calcareis Cephalopodorum in monte* Gregurič *in jugo montium* Samoborska]. 11 Abb., 4 Pl., Prirod. istraž., XX, 201-228. Zagreb (1936).
( — ) Bull. Int. Acad. Jougosl. Sc. & Beaux-Arts, Cl. Sc. Math. & Natur., XXIX–XXX, 173-182. Zagreb (1936).
**b - 1444**

Beschreibung von etwa 20Arten, unter denen mehrere Variationen und 2 neue Arten sind, *Kellnerites samoborensis* n. sp. und *Protrachyceras Vouki* n. sp.

**Samokhvatova S. V.** - Les brachiopodes de l'houille de l'île de Berkh (Novaja Zemlja) [*Brachiopoda carbonis fossilis insulae* Berkh (*in Nova Zemlia*]. (En russe). Troudy Vses. Naoutchno-Issl. Inst. Morsk. Rybn. Khoz. Okeanogr. (Trav. Inst. Rech. Scient. Pêches Marit. Océanogr.), I, 79-109. Leningrad-Moskva (1935).
**b - 1445**

**Scarsella F.** - Di una nuova specie di pteropodo del Miocene appenninico [*Pteropodus species nova aetatis Miocenicae appenninicae*]. Boll. Soc. Geol. It., LIII, 2, 177-181. Roma (1935).
**b - 1446**

È descritta, attribuendola al genere *Diacria*, una nuova specie di pteropodo, raccolta nelle marne della formazione marnoso-arenacea del camerinese, del Miocene medio.

**Scotti P.** - Briozoi fossili del miocene della Collina di Torino (collezione Rovasenda) [*Bryozoa fossilia aetatis miocenicae collinae Taurinensis* (*collectio* Rovasenda)]. 2 tav., Atti R. Acc. Sc. di Torino, LXXI, 3, 402-431. Torino (1936).
**b - 1447**

L'A. illustra una numerosa raccolta di Briozoi fossili estendendo, con opportuni confronti, le conoscenze geologiche intorno al classico giacimento piemontese. Rinvenimento e descrizione di una nuova forma, la *Idmonea cancellata* (Goldfuss), var. *distans*, n. var.

**Semichatov S. V.** - Upper and Lower Boundary of the Middle Carboniferous Moscovian Stage [*Limes inferior et limes superior quoad stratum centrale carboniferum apud Moscuam*]. Amer. Journ. Sc., XXXII, 189, 222-233. New Haven, Conn. (1936).
**b - 1448**

Recent examinations of fossil fauna have proved that there are a break at the top of this stage and a sharp change in the brachiopod fauna. This fauna point to an Upper Carboniferous age for the *Tegulifera* and *Omphalotrochus* horizons.

**Serra G.** - Descrizione di alcuni Echinidi dei giacimenti fosfatici della Tripolitania [*Describuntur Echinoidea ad phosphatica deposita Tripo-*

*litaniae pertinentia*]. 1 tav. f. t., Boll. Soc. Geol. It., LIV, 1, 121-126. Roma (1935). **b - 1449**

Degli Echinidi raccolti uno solo è nuovo, cioè *Botriopygus Vinassai* mentre gli altri sono stati già descritti per i giacimenti maestrichtiani della Tripolitania. Viene inoltre illustrato un caso teratologico presentato da un individuo di *Clypeopygus pseudominimus*.

**Serra G.** - Di alcuni echinidi del Pliocene di Matera (Lucania) [*Echinoidea aetatis Pliocenicae Materae (in Lucania)*]. Boll. Soc. Geol. It., LIV, 2, 220-222. Roma (1935). **b - 1450**

Viene studiato il materiale echinologico del Pliocene dei dintorni di Matera. Tra le specie determinate merita di essere segnalata, per la sua rarità nei depositi pliocenici italiani, lo *Schizechinus serialis*.

**Serra G.** - Di un nuovo pettine del Pliocene di Anzio [*Pecten quiddam novum ad aetatem Pliocenicam Antii pertinens*]. Boll. Soc. Geol. It., LIV, 2, 249-252. Roma (1935). **b - 1451**

Viene descritto un nuovo pettine (*Aequipecten romanus*) delle marne azzurre plioceniche affioranti a Tor Caldara presso Anzio e messo in rapporto specialmente con l'*Aequipecten histrix* dello stesso giacimento.

**Serra G.** - Di alcuni lamellibranchi del Maestrichtiano della Tripolitania [*Lamellibranchiata aetatis Maestrichtianae Tripolitaniae*]. 1 tav., Riv. It. Paleontol., XLI, 3/4, 75-83. Pavia (1935). **b - 1452**

Le specie descritte sono: *Crassatella Wanneri* Pervinquière, *Cardium Millosevichi* n. sp., *Lucina Checchiai* n. sp. e *Corbula harpa* d'Archiac et Haime.

**Shimizu S. & Obata T.** - New Genera of Gotlandian and Ordovician Nautiloids [*Nautiloidea Gotlandica et Ordoviciana. Genera nova*]. (In Engl.). Journ. Shanghai Sc. Inst., Sect. II, 11, 1-10. Shanghai (1935). **b - 1453**

A number of new genera and families are established, listed and partially described.

**Shimizu S. & Obata T.** - On a New Ordovician Nautiloid Genus *Sinoceras* [« *Sinoceras* » *genus novum Ordovicianum ex Nautiloideis*]. Proc. Imp. Acad., XI, 8, 324-325. Tokyo (1935). **b - 1454**

The A. reproduces the redescription of the genus *Orthoceras* made by Troedsson in 1931, on hand of which he shows that there are two important characteristics distinguishing *O. chinense* from the other species of the genus, and proposes to consider it as the genotype of a new genus *Sinoceras* n. g.

**Silvestri A.** - Sulla validità del genere *Fusulina* Fischer [*De validitate generis « Fusulina »*]. Boll. Soc. Geol. Ital., LIV, 2, 203-219. Roma (1935). **b - 1455**

In contrasto con gli scienziati americani Lee, Dunbar, Henbest e Skinner, che hanno negato la validità del genere *Fusulina* Fischer, l'A. la conferma pienamente, mediante le antiche osservazioni sui topotipi del Möller, del Carpenter e del Brady, e le moderne sue ricerche, documentate con microfotografie originali.

**Sladkevitch V. S.** - Faune de mollusques des formations du Pléïstocène du littoral du Golfe de Laurent (Péninsule de Tchoukhotsk) [*Fauna molluscorum in formationibus pleistocenicis litorum Sinus* Laurent (*in Paeninsula* Tchoukhotsk)]. (En russe). Troudy Leningr. Obstsch. Estestvop. (Trav. Soc. Natur. Léningr.), LXIV, 1, 112-121. Leningrad-Moskva (1935). **b - 1456**

**Sos V.** - Existencia del Cenomanense en las proximidades de Castellón [*De exsistentia Cenomanensis apud* Castellón]. 2 Lam., Bol. Soc. Españ. Hist. Natur., XXXV, 10, 507-512. Madrid (1936). **b - 1457**

Algunas indicaciones sobre los fósiles de las capas fosilíferas de Cretácico cenomanense: *Orbitolina aperta*, *Hemiaster verneuili*, *Micraster*, *Ostrea flabellata*.

**Spencer Henson F. R.** - Les grands foraminifères de l'Oligocène de Palestine [*Foraminifera maiora aetatis oligocenicae Palaestinae*]. 1 tabl., C. R. Acad. Sc., CCII, 10, 861-863. Paris (1936). **b - 1458**

L'A. donne une liste des grands Foraminifères des diverses formations de la Palestine, de la Syrie et de la Turquie, établit une comparaison entre les formes observées et tire des conclusions concernant les grands foraminifères de Ramleh-Koubeibeh (Palestine) qui ont été attribués à l'Oligocène, en les attribuant provisoirement à l'Aquitanien.

**Stefanoff A.** - Die Fauna aus der Trias von Golo-Bârdo in S. W. Bulgarien [*De fauna aetatis triassicae in* Golo-Bârdo *in Bulgaria sud-occidentali*]. (In Bulg., Dtsch. Rés.). 4 Taf. a. T., Mitteil. Kgl. Naturw. Inst., IX, 147-162. Sofia (1936). **b - 1459**

Beschreibung von 28 Arten mit Synonymen, Vergleich mit der Trias-Fauna der Nord- und Südalpen, Bakony in Ungarn, Bosnien, Dalmatien, Albanien, Serbien, Griechenland, Dobrudscha und Klein-Asien.

**Størmer L.** - *Dictyocaris* Salter a large Crustacean from the upper Silurian and Downtonian [«*Dictyocaris*» *crustaceus pergrandis in Stratis Silurianis superioribus et in stratis Downtonianis*]. 4 figs., 3 pls., Norsk Geol. Tidsskr., XV, 267-298. Oslo (1935). **b - 1460**

Redescription of some earlier collections and study on some recent funds, principally in Scotland and Norway, with a view to elucidate the zoological position of *Dictyocaris* and the stratigraphical range of the different species and their value as guide fossils. *Dictyocaris salteri* n. sp.

**Tappenbeck D.** - Ueber tertiäre Foraminiferengesteine von Sipoera (Mentawei-Inseln) [*De formationibus fossilibus Foraminiferorum (Aetate tertiaria) in* Sipoera]. Proc. Kon. Akad. Wet., 39, 661-670. Amsterdam (1936). **b - 1461**

**Teichert C. & Miller A. K.** - What is *Orthoceras* ? [*Quid genus Orthoceras ?*]. Amer. Journ. Sc., XXI, Ser. 5, 185, 352-362. New Haven, Conn. (1936). **b - 1462**

The Genus *Orthoceras* is to be ascribed to Bruguière, and *Hippurites bioculata* Lamarck, a pelecypod, should be regarded as the genotype. *Orthoceras* should be ascribed to Modeer, and its genotype is probably a foraminifer. *Orthoceratites* should be ascribed to Gmelin, and its genotype is a poorly known Devonian cephalopod. The name *Orthoceras* should be used to refer to pelecypods only, but the term *Orthoceras* can be used for straight cephalopods. *Orthoceratites regularis* Schlotheim (which has been regarded as the genotype of *Orthoceras*) can be used as the genotype of *Orthoceras* (A. A. abstr.).

**Thalman H. E.** - Mitteilungen über Foraminiferen. II. [*Communicationes de Foraminiferis. II*]. Eclog. Geol. Helvetiae, XXVIII, 2, 592-606. Basel (1935–1936). **b - 1463**

Stratigraphisches Verzeichnis der bedeutendsten eozänen, oligozänen und miozänen Foraminiferen vom Isthmus von Tehuantepec sowie der Foraminiferen von

verschiedenen miozänen Ablagerungen in Tuxpan, Vera Cruz, Mexico, von denen *Operculina tuxpanensis* und *Rotalia indopacifica* (*R. schroeteriana* Parker & Jones 1862) neu sind.

**Tomor-Thirring J.** - Paläontologische Neuigkeiten aus dem Bakony-Gebirge [*Res novae palaeontologicae ad montes* Bakony *pertinentes*]. 2 Taf., 15 Abb., Földtany Közlöni (Geol. Mitt.), LXVI, 1/3, 51-68. Budapest (1936). **b - 1464**

Eine der hier erwähnten Schichten umfasst die Gesteine des transgredierenden eozänen Meeres. Etwa zehn neue Arten, meistens marine, aus den verschiedenen Schichten sind beschrieben.

**Twenhofel W. H. & Shrock R. R.** - Invertebrate Paleontology [*Palaeontologia Invertebratorum*]. 175 figs., 511 pp., Mc Graw-Hill Publ. Co. Ltd. London (1935). **b - 1465**

*Protozoa. Porifera. Coelenterata. Vermes. Echinodermata. Bryozoa. Brachiopoda. Mollusca. Arthropoda.*

**Van Straelen V.** - Sur des Crustacés décapodes triasiques du Nevada [*De Crustaceis decapodis aetatis triassicae regionis* Nevada]. 2 fig., Bull. Mus. R. Hist. Natur. Belgique, XII, 29, 1-7. Bruxelles (1936). **b - 1466**

*Platypleon nevadensis* n. gen., n. sp., et *Triasiglyphea Mulleri* n. gen., n. sp., recueillis dans des couches marines d'âge triasique.

**Vassoevitsch N. B.** - Remarques sur la propagation des *Radiolaria* et de Spicules des silicisponges dans les terrains sénoniens et lutétiens au Caucase [*« Radiolaria » et Spiculae silicispongiae. Quaestio de eorum propagatione in terrena Senoniana et Lutetiana Caucasica*]. Boll. Acad. Sc. URSS, Cl. Sc. Mathém & Natur., 5, 696-704. Léningrad (1935). **b - 1467**

Nouveaux exemples de l'appartenance à des horizons stratigraphiques déterminés des Radiolaires et des spicules des éponges siliceuses lorsqu'elles se trouvent liées aux sédiments sénoniens et lutétiens de quelques régions du Caucase.

**Vaughan Wayland T. & Cole Storrs W.** - New Tertiary *Foraminifera* of the Genera *Operculina* and *Operculinoides* from North America and the West Indies [*Foraminifera aetatis tertiariae ad genus « Operculina » et « Operculinoides » pertinentia in America septentrionali et Indiis Occidentalibus reperta*]. 4 pls., Proc. U. S. Nat. Mus., Smith. Inst., LXXIII, 2996, 487-496. Washington (1936). **b - 1468**

Seven new species are described: *Operculina tuberculata, Operculinoides advenus, O. vicksburgensis, O. semmesi, O. antiguensis, O. forresti* and *O. tuxpanicus*.

**Vokes H. E.** - The genus *Velates* in the Eocene of California [*Genus « Velates » in Eocene californiensi*]. 2 pls. Univ. of Calif. Publ., Bull. Dpt. Geol. Sc., XXIII, 12, 381-390. Berkeley, Ca. (1935). **b - 1469**

The Genus is exclusively Tethyan in its distribution in the Old World. Description of *Velates perversus* Gmelin, and *V. Californicus* n. sp.

**Whitehouse F. W.** - The Cambrian Faunas of North-Eastern Australia. Part 1. Stratigraphical Outline. Part 2. *Trilobita* (*Miomera*) [*De fauna cambriana Australiae nordoccidentalis. Inspectio stratigraphica. Trilobita*]. 4 figs., 3 pls., Mem. Queensl. Mus., XI, 1, 59-112. Queensland (1936). **b - 1470**

Part I: Stratigraphical outline: Explanation; Previous records on Cambrian faunas; Stratigraphical details; On the use of the term Cambrian; Notes on the faunal stages, Part II: Palaeontology: Description of the subclass *Trilobita* Walch, containing the diagnosis of the following new forms: *Solenagnostus* g. n., *Euagnostus* g. n., *Diplorrhina normata* sp. n., *Enetagnostus* g. n., *Cotalagnostus* g. n., *Phoidagnostus* g. n., *Phalacroma* (?) *dubium* sp. n., *Lejopyge exilis* sp. n., *Pseudagnostidae* fam. n., *Glyptagnostidae* fam. n., *Hypagnostus vortex* sp. n., *Aspidagnostus* g. n.

**Wickwire G. T.** - Crinoid Stems on fossil Wood [*Crinoidea. Quaestio de eorum cirris in ligno fossili*]. 1 fig., Amer. Journ. Sc., Ser. 5, XXXII, 188, 145-146. New Haven, Conn. (1936). **b - 1471**

These specimens have been found near Lexington, Indiana, as float above weathered New Albany shale.

**Woodward Smith A.** - On *Tomognathus*, a Teleostean Fish from the English Chalk [*« Tomognathus » piscis teleosteus a formatione Cretacea Anglica proveniens*]. 1 pl., Ann. & Mag. Natur. Hist., XVII, 98, 304-306. London (1936). **b - 1472**

New observations of *Tomognathus mordax*; comparison with the genera of *Stomiatidae*.

**Yabe H. & Eguchi M.** - *Eohydnophora*, a New Genus of Cretaceous Corals [*« Eohydnophora » genus novum Coralliorum aetatis Cretaceae*]. 3 figs., Proc. Imp. Acad., XII, 5, 141-143. Tokyo (1936). **b - 1473**

Description of *Eohydnophora tosaensis* sp. nov. embedded in a characteristic limestone of the Lower Cretaceous from Okuminodani, Tosa province.

**Yabe H. & Sugiyama T.** - Notes on a Fossil Shark's Tooth Found in the Daitô Limestone of Kita-Daitô-Zima, Borodino Islands. [*Notae de dente ad squalum fossilem pertinenti in calcare reperto Insularum* Borodino]. 4 figs., Proc. Imp. Acad., XI, 4, 149-151. Tokyo (1935). **b - 1474**

Report on an unexpected discovery of a large shark's tooth from the Daitô limestone, which may perhaps be included in the well known, almost cosmopolitan species, *Carcharodon megalodon* Agassiz, but which author more safely ascribes to a local new subspecies, *C. megalodon yamanarii* n. subsp.

**Zuffardi-Comerci R.** - Corallari neogenici del Sahel eritreo [*Corallaria neogenica ad regionem Erythraeam* Sahel *pertinentia*]. 1 tav. f. t., Atti R. Acc. Sc. Torino, LXXI, 2, 205-219. Torino (1936). **b - 1475**

La determinazione delle specie di Corallari fossili del Sahel eritreo rivela la presenza di livelli non ancora conosciuti nella regione; rapporti intercorrenti fra i depositi marini contemporanei dell'Africa Orientale, la Corallofauna studiata, le coeve mediterranee e indoasiatiche, nonchè la ricca Corallofauna vivente nel Mar Rosso. La presenza del Pliocene nelle Colline del Sahel e descrizione di 2 nuove specie di Corallari.

# PHYLOGENIA

**Chabanaud P.** - Le neurocrane osseux des Téléostéens dyssymétriques après la métamorphose [*De neurocranio osseo in Teleosteis dissymetricis post metamorphosim*]. 112 figs., Ann. Inst. Océanogr., n. sér., XVI, 3, 227-297. Paris (1936). **b - 1476**

État actuel de la classification des Téléostéens dyssymétriques et des connaissances sur les stades larvaires et sur la métamorphose. Caractères du neurocrâne des *Percoidea* des *Psettodoidea*, des *Pleuronectoidea* et comparaison des neurocrânes des formes étudiées. Considérations systématiques et phylogénétiques. L'A. partage l'hypothèse de Kyle « dérivation successive, dans le temps, des principaux groupes dyssymétriques, à partir d'un phylum en voie d'évolution vers le type *Epinephelus* actuel ».

**Cuenot L.** - L'espèce [*De specie*]. 42 figs,, VI + 310. Encycl. Scient. Doin & C. Paris (1936). **b - 1477**

Histoire de la notion d'espèce. La constitution intime de l'espèce: La méiose, l'hérédité et la variation, les chromosomes, la sélection écologique des préadaptés. Les unités de la systématique: la lignée pure, la sous-espèce et le cercle de races, la terminologie des ichtyologistes russes, les mutations de Waagen. Monographie d'espèces: les Palaemonetes, les Cérithes, etc. La naissance des espèces: la variation polyploïdique, numérique des chromosomes, morphologique, chimique et physiologique. Nomenclature et glossaire.

**Fedotov D. M.** - Morphologische Gesetzmässigkeiten der Evolution in Anwendung auf die Wirbellosen [*Regularitates morphologicae in evolutione Invertebratorum*]. (In Russ., Dtsch. Rés.). Bull. Acad. Sc. URSS, Cl. sc. mathém. & natur., Sér. 5, 1015-1031. Moscou (1936). **b - 1478**

Vortrag gehalten am 22. April 1936 bei der Sitzung der biologischen Gruppe der Akademie d. Wissenschaften. Der Redner weist auf gewisse Uebereinstimmungen zwischen Wirbeltieren und Wirbellosen in Bezug auf grundlegende morphologische Gesetzmässigkeiten des Evolutionsprozesses hin. Die bei der Erforschung sich darbietenden Vorzüge der Wirbellosen, wodurch die Morphologie und Formenverwandtschaft leichter verständlicht werden. Beispiele: die Substitution der sekundären Leibeshöhle bei den Ophiuren, die Homologie der Cölome bei den Echinodermaten, usw.

**Kobayashi T.** - Classification of Primitive Cephalopods [*Cephalopoda Primigenia. Quaestio de distributione in classes*]. (In Jap.). 8 figs., 3 tabl., Chikyu, the Globe, XXV, 11-27; 85-105; 180-192; 271-281; 331-353. (?) (1936). **b - 1479**

Introduction to the classification of primitive Nautiloids for the beginner. 25 chapters are included concerning classification, evolution, mode of life, shell structure, formation of the septum and the connecting ring, the orthoceroid, rosetti and septal neck etc. Phylogeny.

**Kühn O.** - Die Gattung *Pironaea* Menegh. [*Genus « Pironaea »*]. 6 Abb., Ztrbl. Mineral. Geol. u. Paläontol., Abb. B, 9, 353-368. Stuttgart (1935). **b - 1480**

Erörterung der rudisten Pelecypoden; Diagnose der Gattung, ihre Entwicklung. Die Entwicklung von *Barrettia*, *Pironaea* stammt von *Vaccinites* her und *Barrettia* von *Pironaea*.

**Labbé A.** - La phylogénie possible des Silicodermes [*De possibili phylogenia Silicodermatum*]. Mém. Mus. R. Hist. Natur. Belgique, Sér., 2, 3. 15-21. Bruxelles (1936). **b - 1481**

Les silicodermes constituent un ordre particulier des Mollusques pour leurs caractères morphologiques et pour la fonction siligène; ils n'ont aucun rapport avec les Pulmonés auxquels des auteurs les avaient incorporés mais ils ont des points communs avec les Opisthobranches. Indications très intéressantes sur ce groupe fournies par l'étude de la distribution géographique et en particulier par la répartition du genre *Oncidiella* sur les côtes américaines et la côte Ouest de l'Europe et de l'Afrique.

**Lameere A.** - Histoire de la classification des Mollusques [*Historia distributionis in classes Molluscorum*]. Mém. Mus. R. Hist. Natur,. Belgique, Sér. 2, 3, 1-12. Bruxelles (1936). **b - 1482**

La « classification » est le résumé de la phylogénie des êtres vivants. Origine des Mollusques considerés par Haeckel dérivés des Plathelminthes, rapportés par Pelseneer aux Polychètes errantes, par Rauther aux Gordiacés: le débat est dominé par le problème du Coelome. Les Amphineures, les Gastéropodes, les Scaphopodes, les Bivalves et les Céphalopodes représentent les cinq classes reconnues par tous les zoologistes.

**Lang W. D. & Smith S.** - Ludwig's « Corallen aus Paläolithischen Formationen » and the Genotype of *Disphyllum* de Fromentel [« *Corallia ad formationes palaeolithicas pertinentia* » *liber a* Ludwig *confectus et genotypus* « *Disphyllum* » de Fromentel]. Ann. & Mag. Natur. Hist., XIII, 73, 78-81. London (1934). **b - 1483**

Emendations of nomenclature, suppression of 56 genera proposed by Ludwig in his work.

**Matveyev B. S.** - Concerning the Divergence of Signs in Ontogenesis [*De ontogenesi. Divortio in testis*]. Works Arnoldi Biol. Stat., II, 1, 149-155. Novorossiysk (1936). **b - 1484**

New signs arise on different stages of development of an organism. In cases when new systematical signs arise by way of anabolia the development of systematical signs is subjected to the law of K. Baer. On every stage of development evolutionary adaptive signs arise which are necessary to the organism only in a certain short period of life.

Examples cited on *Gobius*, *Pleuronectes flesus*, *Bothus maeoticus*, *Engraulis*, *Scorpaena*, *Ctenolabrus*, *Solea* and others. (From A:s rés.).

**Naef A.** - Kurze Mitteilungen zur Entwicklung von Acraniern und Selachiern [*Communicatio brevior de accretione Acraniorum et Selachiorum*]. Verhandl. Schweiz. Naturforsch. Ges., 117. Jahresversammi. im August 1936 in Solothurn, 329-330. Kommissionsverlag H. R. Sauerländer & Cie. Aarau (1936). **b - 1485**

Kurze Serie von Uebersichtsbildern bis zum Abschluss der Metamorphose: Bildung des Vornierengangs der Selachier und des Müllerschen Gangs; der Mund der Wirbeltiere, die Amphioxusmundhöhle, die Bildung des Mundes und der Kolbendrüse.

**Romer A. S.** - The Dipnoan Cranial Roof [*De fornice craniali in Dipnoideis*]. 4 figs., Amer., Journ. Sc., XXXII, 190, 241-256. New Haven, Conn. (1936). **b - 1486**

Attempt to a phylogenetic history under consideration of possible homologies of the dipnoan skull pattern with the skull bones of Amphibians and Crossopterygians.

**Schindewolf O. H.** - Zur Stammesgeschichte der Cephalopoden [*De phylogenia in Cephalodis*]. 4 Taf., 7 Abb., Jahrb. Preuss. Geol. Landesanst., LV, 1, 258-283. Berlin (1934). **b - 1487**

Erörterung der Entwicklungsgeschichte; Aenderung früherer Annahmen: *Valbortella* ist ein primitives Cephalopod nicht verwandt mit *Salterella*; *Bactrites* ist ein Ammonoid und kein Nautiloid; *Lobobactrites*, *Gyroceratites* und die ältesten Goniatiter sind aus rechtlinigen in wenig zusammengerollte und dann in stark zusammengerollte Formen entwickelt worden, wie man aus dieser Kette sehen kann: *Bactrites*, *Lobobactrites*, *Gyroceratites*, *Mimagoniatites*, *Agoniatites*, *Anarcestes*, *Werneroceras* und der neuen Gattung *Anetoceras* n. gen. Der Ursprung dieser Linie ist in den orthochoanitischen Nautiloiden zu suchen. Entwicklung und Lage des Siphos bei den Goniatiten und gewissen Permischen und Mesozoischen Ammoniten. Nur die Ammoniten, welche ursprünglich den Sipho nicht auf den Rücken hatten, stammen von den Goniatiten her.

**Selys (de) Longchamps M.** - A propos de la torsion de la queue chez les urochordes [*De caudae torsione in Urochordibus*]. Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 401-405. Bruxelles (1936). **b - 1488**

Si la torsion de la queue, chez les Appendiculaires et chez les têtards d'Ascidies, ne s'explique que par des raisons ataviques, les larves d'Ascidies, qui ont la queue tordue, seraient les plus primitives et l'absence de torsion serait un caractère secondaire.

**Straelen (van) V.** - L'Ancienneté et la régression du genre *Homarus* [*De antiquitate et regressione generis* « *Homarus* »]. Mém. Mus. R. Hist. Natur. Belgique, Sér. 2, 3, 469-479. Bruxelles (1936). **b - 1489**

L'A. démontre l'identité du genre *Hoploparia* avec le genre *Homarus*. Ancienneté du *Homarus* qui a eu son apogée au cours de l'ère mésozoïque; les espèces cénozoiques sont en un très petit nombre et cette régression a continué: aujourd'hui la tribu des *Nephropsidea* compte seulement trois familles: *Nephropsidae*, *Astacidae*, *Parastacidae*.

**Stubblefield C. J.** - Cephalic Sutures and their Bearing on Current Classifications of Trilobites [*Suturae cephalicae earumque momentum pro hodiernis classationibus circa Trilobita*]. 9 figs., Biol. Rev., XI, 4, 407-440. London (1936). **b - 1490**

Definition of the cephalic sutures, their distribution, interrelationships and function. Classification: erection of three orders. Discussion on *Mesonacidae*, *Proparia* and *Opisthoparia*. Addendum: Remarks on two newly appeared works of Kobayashi. Bibl.

**Vasnetsov V. V.** - Pyti filogeneticheskich issledovanii kastistych ryb [*De instituendis investigationibus phylogeneticis in Teleostea*]. (In Russ., Dtsch. Rés.). 4 fig., Bull. Acad. Sc. URSS, Cl. sc. mathém. & natur., sér. biol., 5, 999-1014. Moscou (1936). **b - 1491**

Breve rivista storica delle principali ricerche filogenetiche con riguardo speciale ai pesci teleostei. Dopo un breve sguardo sulle ricerche filogenetiche sull'unità sistematica dei pesci teleostei l'A. espone i lavori eseguiti dall'Istituto Russo sulla morfologia evoluzionaria e paleozoologica allo scopo di chiarire il problema della filogenesi dei Teleostei. L'articolo dimostra l'importanza delle ricerche filogenetiche per una migliore comprensione della ecologia delle specie di valore industriale.

**White E. G.** - A Classification and Phylogeny of the Elasmobranch Fishes [*Distributio in classes et phylogenia in Piscibus Elasmobranchiis*]. Amer. Mus. Nov., 837, 1-16. New York (1936). **b - 1492**

Author bases the distinction between genera and species principally on external characters and the distinction between larger groups on internal structures.

Key to the order *Galea*. Classification. Orders of the *Antacea*. The Phylogeny of the Elasmobranchs.

# IV.

# PISCATUS

## GENERALIA

### *Institutiones. Stationes. Laboratoria. Relationes annuae et activitas.*

**Allen E. W.** - The Pacific Halibut Commission. Its legal Powers and Function. – Canad. Fisherm., XVIII, 11, 79-80. Gardenvale, Que. (1936). **b - 1493**

The real name of this commission is « The International Fisheries Commission ». Foundation.

**Carter N. M.** - Report of the Pacific Fisheries Experimental Station Prince Rupert, B. C. for 1935. – Ann. Rep. Biol. Bd Canada 1935, Appendix IV, 37-46. Ottawa (1936). **b - 1494**

Technological aspects of fisheries research. Uses of fish oils in manufacturing, for feeding and medicinal researches. Bacteriology: handling of fish (refrigeration, storage, canning etc.). Sea water temperature. Miscellaneous. Co-operation with industries. Education and public relations.

**Finn D. B.** - Report of the Atlantic Fisheries Experimental Station Halifax, N. S. for 1935. – Ann. Rep. Biol. Bd Canada 1935, Appendix II, 17-24. Ottawa (1936). **b - 1495**

Investigations on fresh fish: cod and haddock, scallops. Smoked fish. Canning. Salt fish. By-products. Miscellaneous. Educational activities, services and publications.

**Järvi T. H.** - Fiskeriföreningens i Finland verksamhet år 1935. (In Sved.). – Fiskeritidskr. f. Finl., XLIII, 4, 1–11. Helsinki (1936). **b - 1496**

Resoconto generale. Sedute e Soci, direzione, funzionari. Istruzione: preparazione, conferenze ed esposizioni. Propaganda. Pesca. Pubblicazioni, ecc.

**Leim A. H.** - Report of the Atlantic Biological Station St. Andrews, N. B. for 1935. – Ann. Rep. Biol. Bd Canada 1935; Appendix I, 7-16. Ottawa (1936). **b - 1497**

Biological problems concerning the conservation and development of the fisheries of the Canadian maritime provinces. Hatching and rearing of trout and salmon. Investigations on cod, haddock, herring, oyster, scallop, lobster; hydrographic and miscellaneous investigations. · General activities and publications.

**Lücke J. B.** - Das Institut für Seefischerei in Wesermünde. – Dtsch. Fischwirt., III, 43, 707-709. Berlin (1936). **b - 1498**

Geschichte: Gründung, Aufgaben, Arbeitsmethoden; Verarbeitung der Hering, der wichtigsten Rohware; Versuche mit Konservierungsmitteln, sterile Fischzubereitungen; Expeditionen und fischereibiologische Untersuchungen; wissenschaftliche und technische Einrichtungen des Instituts. Zusammenarbeit mit anderen Forschungsinstituten.

**Osadtchikh M. P.** - Institut Polaire de l'Economie de la Pêche Maritime et d'Océanographie « N. N. Knipovitch » à Mourmansk. (En russe). – 3 fig., Naouka i Zhiznj, 7, 46-47. Moskva (1935). **b - 1499**

**Sundara Raj B.** - Administration Report for the Year 1934-35. – 76 pp., Madras Fish. Dpt. Madras (1936). **b - 1500**

Part I. Marine Fisheries: Scientific and technological research. Administration. II. Minor marine and estuarine fisheries: Prawns, edible oysters. III. Inland Fisheries. IV. Crown monopolies (pearl and chank fisheries). V. Biological specimens supply. VI. Anti-malarial work. VII. Socio-economic work: schools, marine aquarium etc. VIII. Propaganda. IX. Fishery legislation. X. Publications. Part II. Finance. Part III. Staff and equipment.

**Thompson H.** - General Report. – Rep. Newfoundl. Fish. Res. Lab., Div. Fish. Res., Dpt. Natur. Resources, Newfoundland, II, 5, 1-31. Cardiff (1936). **b - 1501**

This report concludes the first phase of the fifth year of work. The fishery resources of Newfoundland. The deep sea fishery: schooners and trawlers, experiments by British trawlers, training ships, importance of regular supplies and of utilising haddock. Other deep sea species of fish. Suspension of deep-sea investigations. The inshore fishery: increase of controls requisite in the codfishery. Other inshore species. Salmon. Herring. Lobsters. Caplin. Smelts. Squid. Shell–Fish. Seaweeds. Hydrographic factors. The utilisation of the fishery resources. Education.

**Canadian Fisheries Association** - Memorandum Presented to Minister of Fisheries. – Canad. Fisherm., XXIII, 1, 9-12. Gardenvale, Que. (1936). **b - 1502**

Full text of the memorandum presented by the Canadian Fisheries Association suggesting improvements in the markets for Canadian, fish and the condition of fishermen with special regard to markets wanted, educational campaign, exports, markets and trade.

**Confederazione Fascista dei Lavoratori dell'agricoltura** - Corporazione della Zootecnia e della Pesca. – Conf. Fasc. Lav. Agric., 11-82. Roma (1936). **b - 1503**

Accennato ad alcune direttive di azione nella disciplina della produzione e della utilizzazione dei prodotti zootecnici e dei loro derivati, vengono esaminati i problemi della previdenza e assistenza a favore dei pescatori, della disciplina dei mercati all'ingrosso del pesce. Seguono le mozioni della Corporazione deliberate in seguito all'esame dei singoli problemi.

**Department of Fisheries (Japan)** - Annual Report for 1934-35. Saghalien Central Experiment Station. (In Jap.). – 60 pp., Konuma, Saghalien, Jap. (1936). **b - 1504**

**Fishery Advisory Committee** - Reports. – Fish. Gaz., LIII, 4, 14 & 23. New York (1936). **b - 1505**

Report on the exceptional record production of certain important canned fish in 1935, the canned salmon curtailment, the necessity of conservation measures, legislation concerning the stabilization, the material assistance and the conservation of the fishery of the United States.

**Fishery Board for Scotland** - Fifty-Fourth Annual Report for the Year 1935. – Tables, graphs., Fish. Scotl., 6-83. Edinburgh (1936). **b - 1506**

Means of capture and persons engaged; the herring fishery, and other fisheries. Miscellaneous. Marine Superintendence. Harbours. Scientific investigations. Salmon fisheries. Appendices: Harbour improvement schemes. Return of assistance granted to various harbours. Annual grant for harbour works. Salmon fishery close times. Staff.

**Fishery Research Laboratory Newfoundland** - Annual Report 1935. – 19 figs., 19 charts. Rep. Newfoundland Fish. Res. Lab. 1935, Div. Fish. Res., Dpt. Natur. Resources, Newfoundland, II, 5, 1-95. Cardiff (1936). **b - 1507**

I. General report. II. Hydrographic and biological investigations: Hydrographic conditions in 1935; Plankton, Haddock and Salmon investigations; the relative productivity of fishing - grounds; relationship between catch of cod and water temperature; sizes of cod and distribution of age- classes in 1935; racial groups of cod; cod- tagging experiments. III. Notes on technical investigations. Appendices. Log of «Cape Agulhas» operations; hydrographic data; Newfoundland Lobster investigations; a further species of Grant squid.

**Imperial Fisheries Experimental Station** - Semi-annual Report (January-June 1936). (In Jap.). – Tables, 205 pp. Imp. Fish. Exper. Stat., Rep. No. 58. Tokyo (1936). **b - 1508**

Synopsis of the hydrographical investigations, sectional observations, coastal observations; regular off-shore observation; current measurements; résumé of fisheries; records of highsea and shore fisheries; marked fish; plankton.

**Inspector of Eastern Sea-Fisheries** - Inspector's Report for the Year: Shrimps, Crabs, Lobsters, Whelks, Winkles, Cockles, Mussels. – Fish. Trad. Gaz., LIV, 2761, 23. London (1936). **b - 1509**

**Marine Department, Wellington N. Z.** - Report on Fisheries for the Year ended 31 st March, 1936. – Mar. Dpt. Wellington, N. Z. (1936). **b - 1510**

**Ministry of Agriculture and Fisheries** - Fisheries-England and Wales. Salmon and Freshwater Fisheries Report for the Year 1935. – Pls., tabl., figs., H. M. Stat. Off., 4-41. London (1936). **b - 1511**

General. The season of 1935. Administration. Miscellaneous: Salmon received at Billingsgate. Prices of Salmon, Imports and exports, sealing. 7 Appendices.

**Roinn Talmhaiochta Brainse Iascaigh** (Department of Agriculture, Fisheries Branch). - Report on the Sea and Inland Fisheries for the Year 1934. – 3 figs., 17 tabl., Stat. Off., 34 pp. Dublin (1935). **b - 1512**

Sea fisheries and Inland fisheries. Statistical tables and graphs showing the quantity und value of fish landed, the fish prices, import and export of fish with special regard to the mackerel and herring fisheries, the fishing boats, the trawling, the licences issued, the output of salmon and trout fry, etc.

**Roinn Talmhaiochta, Brainse Iascaigh** (Department of Agriculture, Fisheries Branch). - Report of the Minister for Agriculture on the Sea and Inland Fisheries for the Year 1935. – Rep. Sea a. Inl. Fish. 1935, 1-32. Dublin (1936). **b - 1513**

Sea fisheries (1-9): Demersal fishery. Pelagic fishery: Herrings, mackerel. Shellfish. Landings by outside boats. Imports and exports. Fishery loans. Sea Fisheries Association of Saorstat Eireann, limited. Fishery patrol service. Minor marine works and dredging. Scientific and technical investigations. Appendices.

**Saghalien Central Experiment Station** - Annual Report for 1934-1935. (In Jap.). - Department of Fish., 60 pp. Konuma, Jap. (1936). **b - 1514**

**Secretary of Commerce** - Annual Report for 1935. Bureau of Fisheries. – Dpt. Comm., Bur. Fish., 87-111. Washington D. C. (1935). **b - 1515**

Outlook on the fishing industry of the United States Fishery Advisory Committee. Effectuating a better relation ship between commercial and sport fishermen. Cooperation with states, educational institutions and other federal agencies. Conservation of whales. Biological fishery investigations. Alaska Fisheries Service and Fur-Seal Service. Propagation and distribution of food and game fishes. Aquarium. Marketing. Statistical and technological investigations. Black bass, and anglers division. Vessels. Appropriations.

**J.** - Das Fischereimuseum in Wesermünde eine eindrucksvolle Lehrschau über die Seefischwirtschaft. – Dtsch. Fischwirt., III, 43, 720. Berlin (1936). **b - 1516**

Das Museum enthält eine grosse Modellsammlung über Fischfang, Fischhandel, Fischindustrie und Hafenbau; Kartographische Darstellungen der Fangplätze mit ihren Erträgen, Statistiken über die wirtschaftliche Bedeutung der Seefischerei und eine biologische Sammlung. (Vf.)

**J.** - Das Nordsee-Aquarium in Bremerhaven zeigt die Seefische lebend in naturwahrer Umwelt. – Dtsch. Fischwirt., III, 43, 720-721. Berlin (1936). **b - 1517**

Beschreibung des seit 1913 bestehenden Aquariums, das neben dem von Helgoland das grösste seiner Art ist.

**An.** - The Chekiang Provincial Fisheries Experiment Station, Tinghai, Chekiang, China. (In Engl. & Chin.). – Chek. Prov. Fish. Exp. Stat., Spec. Publ. 1, 1-11. Tinghai, Chekiang, China (1936). **b - 1518**

Location of the Station. Its history. Organization and staff. Building and equipment. Finance. Activities. Publications.

**An.** - Aus dem Jahresbericht des Propagandaausschusses des staatlichen Fischereihafens Wesermünde-Bremerhaven Seefischmarkt A.-G. – 1 Tab.,

Dtsch. Fisch.-Rundschau, 14, 316-319. Bremerhaven (1936). **b - 1519**

Kurzer Bericht über die Tätigkeit der Propagandastelle des Fischereihafens Wesermünde-Bremerhaven während eines Zwischengeschäftsjahres vom 1. April bis 31. Dezember 1935.

**An.** - President's Annual Report Oyster Growers' and Dealers' Association at Annual Convention. – Fish & Oyst. Rep., XVII, 6, 3 & 11. Tampa, Fla. (1936). **b - 1520**

Brief account of the activity and progress of the Association during the year 1935.

**An.** - Port Erin Biological Station. – Fish Trad. Gaz., LIV, 2778, 23 & 25. London (1936). **b - 1521**

Lobster cultivation. The Plaice hatchery. The herring fisheries. Oyster research.

## *Congressus – Conventus – Expositiones – Bibliographia piscatoria – Necrologiae.*

**Dakin W. J.** - Research in Australian Sea Fishes. – Pap. & Proc. R. Soc. Tasmania for 1934. Hobarth (1935). **b - 1522**

In his R. M. Johnston Memorial Lecture A. gives a brief survey of various fisheries and methods of investigations in all parts of the world as well as the needs and development of the Australian fisheries. Of special interest is the life-history of the prawns, *Penaeus plebejus* migrating to the sea from the lake.

**De Angelis R.** (A cura di). - Atti del Convegno di pesca (Bari, 10 settembre 1935), organizzato dalla Lega Navale Italiana con il concorso del Ministero dell'Agricoltura e Foreste. – 43 pp., Tip. A. Manuzio. Roma (1936). **b - 1523**

Rapporto del Convegno svoltosi sotto la presidenza del prof. G. Tassinari e delle comunicazioni sul valore nutritivo dei pesci (S. Visco e G. Quagliariello), sull'uso del ghiaccio secco nella conservazione del pesce (G. Ginori Conti) e sulle applicazioni radio alle navi da pesca (L. De Medici). (Vedi anche Boll. Pesca, Piscicolt. e Idrobiol., XII, 2, 77–117. Roma 1936).

**Essipov V. K.** - Liste des ouvrages sur l'économie de la pêche du Nord européen de l'URSS, 1917-1933. (En russe). – 160 pp., Glavsevmorpoutj (Administration Centrale de la Voie Maritime du Nord). Leningrad (1935). **b - 1524**

**Frison T. H.** - First North Central States Fish and Game Conference. – Science, LXXXIII, 2150, 265-266. New York (1936). **b - 1525**

Account of the meeting held in Urbana, Ill. on December 5 and 6, 1935.

**Höver O.** - 50 Jahre Deutsche Hochseefischerei, 40 Jahre Wesermünder Fischereihafen – 75 Abb., 330 S., Verlag Stalling. Oldenburg i. O. (1936). **b - 1526**

Besonders berücksichtigt wird hier die Gründung und Entwicklung der Dampfhochseefischerei. Die Fischereihäfen, die Fischdampfer und die Fanggeräte. (Siehe auch Dtsch. Fisch.-Rundschau, 9, 196-197; 22, 501-516; 1936. Dtsch. Fischwirt., 17, 261-263. Fischmarkt, IV, 5, 133-134, 1936).

**Lebbin G.** - Fischhandelskunde und Fischwarenindustrie. Ein Hand-, Lehr- und Nachschlagebuch für Fischhändler, Fischwarenfabrikanten, Feinkosthändler, Tierärzte, Nahrungsmittelchemiker, Ärzte und Beamte. – Chem.-techn. Bibl., CCCCIII, 344 S., A. Hartlebens Verl. Wien & Leipzig (1936). **b - 1527**

I. Kurze Begriffsbestimmungen über sowohl Seeals Süsswasserfische, Systematisches, Altersbestimmung, Wanderungen, Fischkrankheiten und Parasiten, Begriffe « lebende », « lebendfrische » und « gefrorene » Fische, Zersetzungserscheinungen, Handelsbezeichnungen und giftige Fische. II. Kurze Uebersicht der « unverarbeiteten Wassertiere »; III. Industrielle Erzeugnisse. IV. Hilfsstoffe der Fischindustrie. V. Gesetzliche Bestimmungen. VI. Bibl., Index. - (Siehe Kritik von Schnakenbeck in Fischmarkt II, S. 30, 1936).

**Lücke F.** - Fischindustrielles Taschenbuch. 2. Aufl. Praxis und Wissenschaft der Seefischverarbeitung. – Verl. Dr. Serger und Hempel. Braunschweig (1936). **b - 1528**

In dieser Neuauflage ist grosses Gewicht auf die praktische Erfahrung gelegt besonders in Bezug auf die Konserven.

**Österholm J., Gottberg G. & Forssell F.** - Handbok för skärgårdsfiskare. (In Sved.). – 250 pp., Utg. Nylands fiskarförbund. Söderström & Co. Förl. Helsinki (1936). **b - 1529**

Questo manuale, dedicato specialmente ai pescatori dell'Arcipelago del Golfo Finnico, dà informazioni sulle diverse specie di pesci catturati, la loro pesca e preparazione sui battelli di pesca, la navigazione, la legislazione di pesca, ecc.

**Ugarte J.** - Miscelánea piscìcola. – Bol. Pesca y Caza, VIII, 2, 1-10. Madrid (1936). **b - 1530**

Conferencia dada en la Sociedad « El Sport de Pesca y Caza » el dia 27 de diciembre de 1935. Las facultades mentales de los peces. Valor nutritivo de los peces. Politica piscicola.

**Wundsch H. H.** - Professor Dr. Paulus Schiemenz. – 1 Portr., Ztschr. f. Fisch., XXXIV, 5, 751-754. Neudamm & Berlin. (1936). **b - 1531**

Lebensverlauf und Werk von Professor Paulus Schiemenz, « Vater der preussischen Fischereiforschung » am 15. Dezember 1936 gestorben.

**Conseil Permanent International pour l'Exploration de la Mer** - Meeting of Herring Experts. – Cons. Expl. Mer, Rapp. & Pr.-Verb., C, 2ème partie, 7-10. Copenhague (1936). **b - 1532**

Terms of reference. Agenda. Proceedings. Conclusions. Recommendations. List of members taking part in the discussion. Papers.

**Conseil Permanent International pour l'Exploration de la Mer** - Copenhagen Meeting of Experts from Baltic Countries. – Cons. Expl. Mer., Rapp. & Pr.-Verb., C, 2ème partie, 35-36. Copenhague (1936). **b - 1533**

Experts present. Agenda. Proceedings. Flounder. Salmon. Recommendations.

**Illustriertes Fischerei-Lexikon** - 251 Abb., 362 S. Verlag Neumann. Neudamm (1936). **b - 1534**

Dies Werk ist unter Mitwirkung namhafter Fischereifachleute auf Grund einer sechsjährigen Gemeinschaftsarbeit geschaffen worden und bietet nur nicht dem praktischen Fischer und Teichwirt sondern auch dem wissenschaftlich arbeitenden Naturforscher eine Hilfe dar.

**Office scientifique et technique des Pêches maritimes** - Manuel des Pêches maritimes françaises. – Mém. Off. Pêches marit., IX, 1, 13-140; X, 2, 13-198; XI, 3, 11-173; XII, 4, 13-191. Paris (1935-1936). **b - 1535**

1. Introduction à l'histoire des pêches maritimes en France. Etat actuel de l'industrie de la pêche maritime. Organisation des pêches en France. 2. Les différentes pêches maritimes et leurs engins. 3. Les principaux ports et les fonds de pêches. 4. Les industries annexes de la pêche. L'Ostréiculture, la mytiliculture et la conchyliculture. Le contrôle sanitaire coquillier. Aperçu sur la réglementation.

Ed. traduit en allemagne dans « Handb. Seefisch. N. Europa », Schweizerbartsche Buchandl. Stuttgart.

**Lb.** - Prof. Dr. Ehrenbaum: Naturgeschichte und wirtschaftliche Bedeutung der Seefische Nordeuropas. – Dtsch. Fischwirt., III, 8, 172-173. Bremerhaven (1936). **b - 1536**

Kommentar und kurze, zusammenfassende Wiedergabe des Inhaltes des neuen Werkes von Prof. Dr. Ehrenbaum, das als Band II des « Handbuches der Seefischereien Nordeuropas » kürzlich in Stuttgart erschienen ist.

**An.** - Almanaque del Pescador 1936. Año II. – 194 pp. Imprenta Mortosa. Madrid (1936). **b - 1537**

El volumen contiene diversos temas como biologia de las Aguas, metodos de pescar, hojas estadisticas para capturas, noticiario, información bibliográfica, etc.

**An.** - Terada Torahiko. (In Jap. and Engl.). – 1 fig., 2 pp., Bull. Jap. Soc. Scient. Fish., IV, 6. Tokio (1936). **b - 1538**

Necrology of tis pioneer of the fishery and oceanography, one of the promotors of the Japanese Society of Scientific Fisheries; his life, studies, works and publications.

**An.** - Jahres-Mitgliederversammlung der Fachgruppe Fischindustrie in der Wirtschaftsgruppe Lebensmittelindustrie am 15. Juni 1936 in Altona. – Dtsch. Fisch.-Rundschau, 13, 292-293. Bremerhaven (1936). **b - 1539**

Bericht über den Verlauf der Versammlung und zusammenfassende Wiedergabe der Hauptreden.

**An.** - Der Reichsfischereirat tagte. Erklärung über die Lebensfragen und Arbeitsziele der berufsständischen Fischerei. – 1 Abb., Dtsch. Fischwirt., III, 19, 290-292. Berlin (1936). **b - 1540**

Der Reichsfischereirat ist neulich als oberste organisatorische Spitze der Fischerei von dem Reichsnährstand eingerichtet worden. Die erste Tagung hat sich besonders mit den Schwierigkeiten der See- und Küstenfischer beschäftigt, über welche die Ausführungen Kühls hier in Wortlaut wiedergegeben werden.

**An.** - Die Berliner Zentralmarkthalle feierte ihr 50 jähriges Bestehen. Der Fischhandel nahm an diesem goldenen Jubiläum regen Anteil. – Dtsch. Fischwirt., III, 19, 294-295. Berlin (1936). **b - 1541**

Bericht über das Feiern. Kurze Historik.

**An.** - Sitzung des Wissenschaftlichen Ausschusses des Reichsverbandes in Rostock. – Dtsch. Fischwirt., III, 47, 795-796. Berlin (1936). **b - 1542**

Bericht über die in November 1936 gehaltene Sitzung. Vorträge: « Die wissenschaftliche Ausbildung des Fischereisachverständigen » (Dr. Willer); « Was erwartet der Fischer von der Zusammenarbeit mit dem Fischereisachverständigen ? » (Fischereimeister G. Heyde); « Massnahmen zur Förderung des Plattfischbestandes in der Ostsee » (Dr. Altnöder); « Die neuen Aufgaben der Netzkonservierung » (Dr. Neuhaus).

**An.** - Der Berliner ambulante Fischhandel tagte. Besondere Aufgabe des Wochenmarkthandels bei der raschen Ausweitung der Fischversorgung. – Dtsch. Fischwirt., III, 49, 824-825. Berlin (1936). **b - 1543**

Bericht über die am 30. November 1936 gehaltene Sitzung. Verhandlungen: Systematische Vergrösserung der Verkaufstände, die Aufgaben des ambulanten Fischhandels und die Aufgaben der Aussenstelle der Hauptvereinigung für Berlin und die Kurmark. Die Aufgabe der Reichsbahn.

**An.** - Internationale Konferenz über Schonmassnahmen für die Fischerei im nördlichen Atlantischen Ozean tagte in London. – Dtsch. Fischwirt., III, 49, 829-830. Berlin (1936). **b - 1544**

Kurzer Bericht über die vom 23. bis 28. November 1936 stattgefundene Konferenz. Teilnehmer. Verhandlungen.

**An.** - Congressional Investigation of Fisheries Proposed. – Fish & Oyst. Rep., XVII, 6, 6 & 14. Tampa, Fla. (1936). **b - 1545**

Draft of a resolution passed by the Congress and proposing an extensive investigation into the fisheries possibilities of the United States with a view to encourage and aid the industry in the solution of many problems.

**An.** - 1936 Motor Boat Show. – 4 photos., Fish. Gaz., LIII, 2, 7-9 & 21. New York (1936). **b - 1546**

Description of new models of marine motors, new products and improvements affecting fisheries.

**An.** - Captain Edward J. Weiderman, a Pioneer Gloucester Gill-Netter. – 2 photos. Fish. Gaz., LIII, 2, 10. New York (1936). **b - 1547**

Brief biography of Capitain E. J. Weiderman, who was the first to introduce gill-netting about twenty-five years ago on the Atlantic coast.

**An.** - Revolutionary Developments outlined by International Refrigeration Congress. – Fish. Gaz., LIII, 9, 12. New York (1936). **b - 1548**

Account the Seventh International Congress of Refrigeration held in The Hague in June 1936.

**An.** - First International Congress of the Sea. Deep-Sea Fisheries on the Agenda. – Fish Trad. Gaz., LIV, 2782, 16. London (1936). **b - 1549**

Short information on the congress held in Ostende in September 1936 under the patronage of the Administration of the Belgian Marine, the Propaganda Office and the Belgian Maritime League.

**An.** - National Fisheries Advisory Board considers many important Subjects. – 1 fig., Pacif. Fisherm., XXXIV, 3, 19. Seattle, Wash. (1936). **b - 1550**

Some information on the third meeting of the Fishery Advisory Committee of the Dpt. of Commerce held in Washington January 13-14, 1936.

**An.** - The American Fisheries Society and the Council on Fishery Investigations. – Science, LXXXIV, 2180, 324-325. New York (1936). **b - 1551**

Short account of the sixty-sixth annual meeting held in Grand Rapids, Michigan, on September 2, 3 and 4, 1936

### *Expeditiones oceanographicae pro piscatione.*

**Budker P.** - Compte-rendu d'une mission au large des côtes de Mauritanie (Cap Blanc). – Bull. Mus. Nat. Hist. Natur., sér. 2, VIII, 3, 237-239. Paris (1936). **b - 1552**

Il s'agit de la mission du « Casoar », chalutier envoyé par une société de pêche pour exploration en février-mars 1936. Espèces capturées.

**Burmakin E. V.** - Scientific Fishery Expedition to the Northern Part of the Obj. (In Russ. & Engl.). - Bull. Arct. Inst., V, 11, 389-390, 420. Leningrad (1935). **b - 1553**

The amount of the fish in the northern part of the Obj and the Gydaiama Bay has been approximately estimated and considerable material on the systematics, the life history and fishery of the most important commercial species of fish gathered by the staff of the expedition.

**Jennov J. G.** - Østgrønlandsk Fangstkompani « Nanok's » « Gefion » –Expedisjon til Danmarkshavn og Hvalrosodden Juli-September 1932 og nogle iagttagelser vedrørende Isforhold ved den grønlandske Nordostkyst. – Publ. Østgrønl. Nr. 2. København (1935). **b - 1554**

**Koschkin V. N.** - Two Years Wintering in Prontschischtev Bay. (In Russ., Engl. Summ.). – 1 fig., 1 table. Bull. Arct. Inst., VI, 3, 117-119, 146. Leningrad (1936). **b - 1555**

Brief account of a hunting campaign, the aim of which was the economical conquest of this inexplorated part of the Peninsula. An account of the sea and terrestrial animals killed is given.

**Toporkov G. N.** - Biological and Fishery Expedition of the Arctic Institute to Novaya Zemlya. (In Russ., Engl. Rés.). – Bull. Arct. Inst., VI, 12, 526-527. Leningrad (1936). **b - 1556**

Short account of two expeditions sent out in 1936, one of which carried out ichtyological investigations on the distribution and migration routes of cod, its concentration- places and bait with a view to organize the fishery; the other studied the stock of the white whale and questions connected with the organization of catch and industry of this mammal.

**Fishery Research Laboratory Newfoundland** - Research Cruises of Steam Trawler « Cape Agulhas ». – Rep. Newfoundl. Fish. Res. Lab. 1935, Div. Fish. Res. Dpt. Natur. resources, Newfoundl., II, 5, Appendix A, 49-55. Cardiff (1936). **b - 1557**

Statistical tables on station, depth, plankton nets time towed and depth, dredges and trawls.

**LB.** - Fischereibiologische Arbeiten während der Lofotfischerei im Frühjahr 1935. – Dtsch. Fisch.- Rundschau, 5, 101-102. Bremerhaven (1936). **b - 1558**

An Hand einer norwegischen Veröffentlichung berichtet Vf. über die Fangausbeute, den Fangbestand, die Auswirkung der Netzmaschenweite auf die Erträge, die Versuche mit Radiolot zur Auffindung von Fischschwärmen und die hydrographischen Beobachtungen, welche während der Frühjahrsfangsaison bei Lofoten in 1935 ausgeführt worden sind.

**An.** - Swedish Government Support for Iceland Expedition. – Fish Trad. Gaz., LIV, 2766, 17. London (1936). **b - 1559**

Claim for 300 000 Swed. crowns in support of a fishing expedition to be sent to Iceland in the summer of 1936.

## PISCATUS OECONOMIA, LEGISLATIO

### *Ratio productionis, industriae et commercii.*

**Bähr O.** - Querschnitt durch die Fischwirtschaft. – Dtsch. Fischwirt., III, 6, 84-85. Berlin (1936). **b - 1560**

An Hand von verschiedenem Material bespricht Vf. den Heringsfang an der Murmanküste und bei Island, die Entwicklung der Fischmehlindustrie in Norwegen und die Entwicklung der Propaganda zur Förderung des Fischverbrauchs in Deutschland.

**Bell F. T.** - Technological Activities of the Bureau of Fisheries on Problems of the Pacific Coast. – Pacif. Fisherm., XXXIII, 7, 23 & 25. Seattle, Wash. (1935). **b - 1561**

Salmon waste utilization: some conclusions (see also ibid. 9, 61). Fish preservation studies. Nutritional research. Preservation of gear.

**Dierks** - Das neue Vierjahresprogramm gilt auch für die Fischwirtschaft. Der Verpflichtung wird die Tat folgen. – Dtsch. Fischwirt., III, 43, 684-685. Berlin (1936). **b - 1562**

Ueber die enorme Steigerung der Produktion der deutschen Hochseefischerei während der nationalsozialistischen Regierung. Produktionstatistik. Einfuhrstatistik.

**Dounaev M. K.** - Sur l'étude des richesses ichthyologiques du Nord. (En russe). – Khoz. Sev., 11, 39-43. Arkhangheljsk (1935). **b - 1563**

**Gonzales N. J.** - The Fisheries Greatest Opportunity Now Faces Industry. – 1 photo, Fish. Gaz., LIII, 2, 11. New York (1936). **b - 1564**

Indication that the year of 1936 will usher in a new era of exceptionally favourable business conditions for the fishing industry. Advice how to face these new opportunities, specially concerned with the useful work of the Oyster Institute of North America, Inc.

**Hesse K. H.** bearb. von. - Wie fremde Nationen ihre Fischindustrien unterstützen. – 1 Tab., Dtsch. Fisch.-Rundschau, 11, 247-249. Bremerhaven (1936). **b - 1565**

An Hand eines Berichtes des britischen Handelsministeriums bespricht Vf., wie fremde Nationen ihre Heringsindustrie unterstützen, mit besonderer Berücksichtigung der Massnahmen, die in Belgien, Dänemark, Finnland, Frankreich, Deutschland, Holland, Island, Italien, Japan, Norwegen und Schweden getroffen worden sind.

**Ross Th.** - 1936 has been a comparative Tonic to the Merchants. – Fish Trad. Gaz., LIV, 2796, 45. London (1936). **b - 1566**

Improvement in comparison with preceding years. The necessity of restriction of fishing in the North Sea. Less seine net supplies.

**Weiss H.** - Zur Bedeutung des Meeres als Ernährungsgrundlage. Japan, eins der eigenartigsten Beispiele. – Dtsch. Fischwirt., III, 37, 590-591. Berlin (1936). b - 1567

Etwas über die Volksversorgung Japans in Bezug auf die weitgehende Ausnutzung des Meeres - Fische und des gepressten Tangs als Gemüse, - was sehr grosse wirtschaftspolitische Folgen gehabt hat.

**Ge.** - Der Rückgang des britischen Salzheringsimports nach Polen und seine Ursachen. – Dtsch. Fischwirt., III, 12, 185-186. Berlin (1936). b - 1568

Dieser Artikel ist der britischen Fachzeitschrift « Fishing News » entnommen. Kritik der monopolartigen Stellung der Danziger Importeure.

**An.** - How Foreign Nations Assist the Fishing Industry. – Canad. Fisherm., XXIII, 4, 12-13. Gardenvale, Que. (1936). b - 1569

Brief summary of a communication of the British Board of Trade, containing a statement how foreign countries subsidize their herring fishing industries. Data are given of the sums spent by Belgium, Denmark, Finland, France, Germany, Holland, Iceland, Italy, Japan, Norway, and Sweden in order to assist their respective herring fisheries, and to increase the consumption of fish.

**An.** - Norwegens Werbung für Seefische in der Schweiz. – Dtsch. Fisch.-Rundschau, 5, 94-95. Bremerhaven (1936). b - 1570

Stimmen für und gegen diese Werbung. Auszug der Anführung des norwegischen Propagandaleiters.

**An.** - The Nation's Sea-Fish Supply. State and Fishing Industry: Control of Quality: International Agreement: The Biological Side. – Fish Trad. Gaz., LIV, 2761, 31. London (1936). b - 1571

Account of three Buckland lectures given by Mr. E. Ford on the above subjects.

## *Piscatorum activitas – Adsistentia – Tutela et infortunia – Mercedes – Scholae.*

**Bahr K.** - Die Berufsgruppe Seefischerei im Reichsberufswettkampf 1936. – Dtsch. Fischwirt., III, 23, 364-365. Berlin (1936). b - 1572

Verzeichnis der gegebenen praktischen und theoretischen Aufgaben.

**Chipman H. R.** - Technical Education of Fishermen. – Canad. Fisherm., XXIII, 5, 12. Gardenvale, Que. (1936). b - 1573

Brief account of the work of the Atlantic Fisheries Station in 1936.

**Kyte F. L.** - Fishermen Beat Hard Times by Cooperative Action. – 1 photo, Canad. Fisherm., XXIII, 7, 9-10. Gardenvale, Que. (1936). b - 1574

The story of the Alder Point enterprise B. C. which helped fishermen to beat depression in their business through co-operation.

**Pilwat H.** - Zur Schulung der Jungfischer in der Küstenfischerei. – Dtsch. Fischwirt., III, 6, 99-100. Berlin (1936). b - 1575

Vf. bespricht bestehende Mängel in der Berufsausbildung und Fortbildung der Jungen Deutschlands in der Küstenfischerei und in Allgemeinbildung. Er macht infolgedessen einige Vorschläge betreffend die Organisation von Berufsschulen zur Ausbildung von Jungfischern.

**Salter L. C.** - Organizing and Incorporating Fishery Cooperative Marketing Associations. – Fish & Oyst. Rep., XVII, 10, 2 & 19; 11, 2 & 19; 12, 2 & 19; XVIII, 1, 2 & 19. Tampa, Fla. (1936).

( — ) U. S. Dpt. Commerce, Bur. Fish., Fish. Circ. No. 22, 38 pp. Washington (1936). b - 1576

Aims and principles of Fishery cooperative Associations. Fishermen's Associations in general. Characteristics of cooperative marketing Associations. Types of Associations. Functions which a fishery cooperative may perform. Conditions or circumstances that may prompt the formation of Fishery cooperative marketing Associations. Necessity of determining basis for establishing an association. Cooperating agencies. Procedure for organizing an association - preliminary meetings - committees. Work of the committee on surveys, and on organization. Formal steps in forming the association. Filing the articles of incorporation. Organizing the Board of Directors. Adopting bylaws - obtaining members. Beginning operations. Operation methods and policies management.

**Schütte W.** - Havarien auf Fischgründen, ihre Ursachen und Vorschlag zu ihrer Vermeidung. – Dtsch. Fisch.-Rundschau, 5, 93-94. Bremerhaven (1936). b - 1577

Zur Ergänzung seines im vorigen Jahre unter der obigen Ueberschrift veröffentlichten Artikels, bespricht Vf. die Gründe der häufigen Unfälle bei Andenes an der norwegischen Küste und macht einige praktische Vorschläge zur Vermeidung derselben.

**Sterner E.** - Die Fischhändler-Fachschule und das Lehrlingswesen in Hamburg. – Dtsch. Fischwirt., III, 13, 194-196. Berlin (1936). b - 1578

Entstehung der Schule. Unterricht. Allgemeine Regelung des Lehrlingswesens.

**Struve K.** - Verbesserung der Arbeitsweise in der Fischindustrie. – Dtsch. Fisch.-Rundschau, 7, 148-150. Bremerhaven (1936). b - 1579

Dem « Reichsarbeitsblatt » entnommene Ausführungen über die Ergebnisse der vom Institut für Seefischerei Wesermünde unternommenen Versuche mit Hilfe aufgehaltener Unterrichtskurse eine Verbesserung der Arbeitsweise in zahlreichen fischindustriellen Betrieben einzuführen.

**Tricoche G. N.** - Fishermen's Supplies in Newfoundland. – Canad. Fisherm., XXIII, 4, 17-18. Gardenvale, Que. (1936). b - 1580

The object of the present article is to explain the change of attitude of the Canadian Government towards the Newfoundland's fishermen, to whom the Government would not more advance money for fisheries supplies.

**Winter J.** - Die Unfälle in der Fischerei. Anregungen zu ihrer Verhütung. – 2 Tab., Dtsch. Fischwirt., III, 1, 4-6. Berlin (1936). b - 1581

Kurze Uebersicht der Arten der tödlichen Unfälle in der Fischerei Deutschlands und Vergleich mit den Unfällen in den anderen Länderen, mit besonderer Berücksichtigung Japans. Einige Unfallsverhütungvorschriften für Fischdampfer und Heringslogger betreffend Bootszustand, Rettungsgeräte, allgemeine Ausrüstung, Motor, Radioempfangsgeräte, Reichsverordnungen, Arznei- und Verbandskasten, Positionslanternen.

**“ Quibbon „.** - Herring Propaganda: Instruction for Fishermen: Research in Russia. – Fish Trad. Gaz., LIV, 2767, 41. London (1936). b - 1582

Instructional courses for fishermen at the Atlantic Fisheries Experimental Station at Halifax, N. S. Research in the Russian Arctic, especially on plankton.

**An.** - Federal Government Votes $ 500,000 to Aid Fishing Industry. – Canad. Fisherm., XXIII, 5, 7-8. Gardenvale, Que. (1936). **b - 1583**

Information on the voting by the Federal Government of half-a-million dollars to assist the Canadian Fishing Industry; discussion of some reforms to be taken for this scope.

**An.** - Die Fortbildung und Schulung für den Fischeinzelhandel beginnt. Das Haus für Berufsgestaltung in Neuwied ist eröffnet. – Dtsch. Fischwirt., III, 44, 745-746. Berlin (1936). **b - 1584**

Ueber die Eröffnung und Ziele der Schule.

**An.** - « Fishermen's University » for Fleetwood. – Fish Trad. Gaz., LIII, 2751, 17. London (1936). **b - 1585**

Some information on a new nautical school to be opened at Fleetwood.

**An.** - Five-Point Program to safeguard Washington Fisheries outlined by Director Brennan. – Pacif. Fisherm., XXXIV, 3, 16. Seattle, Wash. (1936). **b - 1586**

Account of the program for correction of conditions which have arisen as result of abuses in the past expressed in Fisheries Bulletin No. 35.

## *Leges productionis et commercii Praescripta et decreta – Pactiones.*

**Cerquetelli L.** - Diritto esclusivo di pesca del tonno spettante al Comune di Gallipoli. – Boll. Pesca, Piscicolt. & Idrobiol., XII, 5, 401-414. Roma (1936). **b - 1587**

Studio storico giuridico del decreto del 1895 confermante un diritto che risale al 1327. Contestazioni sorte e conclusioni tratte in base all'applicazione del Regolamento di pesca.

**Denmead T.** - A Summary of Game Fish Laws for 1936-37 with special Reference to Black Bass. – U. S. Dpt. Commerce, Bur. Fish., Fish. Circ. 24, 1-49. Washington D. C. (1936). **b - 1588**

This is the fourth summary published by the Department of Commerce for the convenience of State Game and fish authorities, anglers and others, concerning seasons, licenses, limits, interstate transportation, sale, prohibited methods, propagation and pollution.

**Gellhorn W.** - Social Security Legislation and its Relation to the Fishing Industry. – Fish. Gaz., LIII, 12, 8-9, 30. New York (1936). **b - 1589**

Taxes, treasury regulations; explanation given by the Committee of the House of Representatives concerning the taxes to pay by seamen. Regulations of New York and Wisconsin.

**Groening A. M.** - Die Verwertung der eingeführten Frischheringe geregelt. Verteilung zwischen Fischindustrie und Grünhandel. Importeure müssen Verkäufe und Preise melden. – Dtsch. Fischwirt., III, 40, 633-634. Berlin (1936). **b - 1590**

Erläuterung der Anordnung Nr 33 der Hauptvereinigung der deutschen Fischwirtschaft.

**Merres E.** - Fischindustrielle Erzeugnisse im Spiegel des Lebensmittelrechts. – Dtsch. Fischwirt., III, 6, 82-83. Berlin (1936). **b - 1591**

Kommentar der vom 5. Juli 1927 bis zum 31. Juli 1930 herausgegebenen Gesetzvorschriften betreffend die Lebensmittel, mit besonderer Berücksichtigung ihrer Auswirkung auf die fischindustriellen Erzeugnisse.

**Pryce-Tannatt T. E.** - Laws and Regulations in Summary Concerning Salmon and Trout Fisheries. – Cons. Expl. Mer, Rapp. & Pr.-Verb., XCVI, 5-37. Copenhague (1936). **b - 1592**

The laws concern: Denmark, England and Wales, Finland, France, Germany, Irish Free State, Latvia, Netherlands, Norway, Poland, Portugal, Scotland, and Sweden represented in the Conseil Permanent International pour l'Exploration de la Mer.

**Rémy D.** - Aperçu sur la réglementation de la pêche maritime en France. – Mém. Off. Pêches Marit., 12, Man. Pêches Marit. franç., 4, 173-183. Paris (1936). **b - 1593**

Base et caractère de la réglementation. Dispositions et textes principaux actuellement en vigueur. Essai de mise en concordance de la réglementation française avec les principes de la réglementation internationale.

**Sefrin A.** - Die Schiedsgerichtsbarkeit in der Marktordnung. Das Schiedsgericht der Hauptvereinigung der deutschen Fischwirtschaft, seine Zuständigkeit und das Verfahren. – Dtsch. Fischwirt., III, 21, 329-332. Berlin (1936). **b - 1594**

Unter Beachtung der Anordnung des Reichsbauernführers vom 16. April 1936 bestehen nunmehr innerhalb der Ernährungswirtschaft folgende Schiedsgerichte für Marktregelungsstreitigkeiten: I. Instanz. *a*) Schiedsgerichte bei dem Zusammenschlüssen (Marktverbänden) am Sitz derselben, *b*) Schiedsgerichte des Reichsnährstandes bei den Landesbauernschaften. Berufungsinstanz: Oberschiedsgericht beim Reichsnährsstand, Berlin.

**Sefrin A.** - Marktrechtliche Entscheidungen auf dem Gebiete der Fischwirtschaft. – Dtsch. Fischwirt., III, 43, 715-716. Berlin (1936). **b - 1595**

Klärung von Mitgliedschaftsstreitigkeiten, Beitragsstreitigkeiten, Einsprüche gegen die Festsetzung von Ordnungsstrafen und Klärung von betriebsrechtlichen und verfahrensrechtlichen Fragen.

**Tillessen** - Regelung des Marktes für Schollen. Die Hauptvereinigung verwirklicht Reichsnährstandsgrundsätze auf dem Ernährungssektor Fisch. – Dtsch. Fischwirt., III, 13, 194. Berlin (1936). **b - 1596**

Schutz dem Erzeuger. Schutz dem Verbraucher. Geordnete Warenbewegung.

**Hauptvereinigung der Deutschen Fischwirtschaft** - Anordnung Nr. 10 betreffend Seefischausfuhr nach Oesterreich. usw. – Dtsch. Fischwirt., II, 49, 909-910. Berlin (1935). **b - 1597**

Wortlaut der Verordnung betreffend die Seefischausfuhr aus Deutschland nach Oesterreich und die Verteilung und Verwertung der Herings-, Sprott- und Spitzenfänge der deutschen See- und Küstenfischerei in der Fangperiode 1935/36.

**Hauptvereinigung der Deutschen Fischwirtschaft** - Anordnung Nr. 12 u. 13- – Dtsch. Fischwirt. III, 9, 137–138 ; 10, 152–153. Berlin (1936). **b - 1598**

Wortlaut der Verordnung betreffend die Regelung der Einfuhr von frischen Heringen aus Norwegen, Belgien, Frankreich und Grossbritannien. (S. Kommentare zu derselben auf S. 147-148 n° 10 von « Dtsch. Fischwirt. »).

**Hauptvereinigung der Deutschen Fischwirtschaft** - Anordnung Nr. 16, Nr. 17, Nr. 18, Nr. 20, Nr. 24, Nr. 25. – Dtsch. Fisch.-Rundschau, 8, 175, 178-179; 9, 201; 11, 253; 15, 342-343. Bremerhaven (1936). **b - 1599**

Wortlaut der Verordnungen (16-18) betreffend die Regelung des Marktes für Schollen, die Regelung des Verkehrs mit den Erzeugnissen der Krabbenfischerei und das Verbot der Verwendung gebrauchter Fischkörbe beim Versand frischer Fische. - Nr. 20. Ueber die Erteilung des Gütestempels für Salzheringe. - Nr. 24 u. 25: Ueber die Regelung des Verkehrs mit den Erzeugnissen der Krabbenfischerei der Nordsee und die Belieferung der Fishmehlhersteller mit Rohware und Fischabfällen.

**Ministère des Travaux publics** - Décret portant révision de la réglementation de la Pêche, côtière en Algérie. – Stat. Aquic. et pêche Castiglione 1935, 1, 131-153. Alger (1936).
( — ) Journal Officiel, 18 Août (1936). **b - 1600**

Liste de 67 articles concernant la pêche côtière en Algérie avec un rapport sur la nécessité d'adapter la règlementation en vigueur aux conditions actuelles de l'exercice de la pêche et de codifier les différents règlements sur la police de la pêche en Algérie.

**Dr. Th.** - Pläne zur Regulierung des englischen Fischfanges und Fischmarktes. – Fischmarkt, N. F., IV, 9, 245-246. Cuxhaven (1936). **b - 1601**

Kurze Wiedergabe des Entwurfes der britischen Trawler- Vereinigung in Bezug auf Marktfragen, Anlandungen, Lizensen, Gewinnanteil der Fischer usw.

**Gr.** - Regelung der Frischheringseinfuhr. – Dtsch. Fischwirt., III, 10, 147-148. Berlin (1936). **b - 1602**

Kommentare der Anordnungen n° 12 und n° 13 vom 21. 1. 1936 der Hauptvereinigung der Deutschen Fischwirtschaft, welche die Frishheringseinfuhrhändler *a*) für Norwegen und 2) für Belgien. Frankreich und Grossbritannien zu Bezugsgemeinschaften zusammenschliesst. Der Text der Anordnung n° 13 ist an S. 152 der « Dtsch. Fischwirt. », n° 10, 1936 veröffentlicht.

**Gr.** - Ordnung des Miesmuschelmarktes hilft den Küstenfischern. – Dtsch. Fischwirt., III, 35, 554. Berlin (1936). **b - 1603**

Anordnungen betreffs Hygiene und Preise (S. Wortlaut, S. 557.) Folgende Besserstellung der Muschelfischer: Möglichkeit neuer Muschelkulturen nach holländischem Muster.

**Gr.** - Erweiterung von Betrieben der Küstenfischerei genehmigungspflichtig. Schutz des kleinen selbständigen Fischers. – Dtsch. Fischwirt., III, 37, 588. Berlin (1936). **b - 1604**

Anordnung Nr. 30 im Reichsnährstandsverkündungsblatt Nr. 84 vom 5. September 1936. Notwendigkeit einer Genehmigung für Erweiterung und Aenderung der Fahrzeuge.

**Gr. & -z.** - Keine weitere Uebersetzung in der Küstenfischerei und im Fischgrosshandel. Zwei neue Anordnungen der Hauptvereinigung der Deutschen Fischwirtschaft. – Dtsch. Fischwirt., III, 11, 161-162, 166. Berlin (1936). **b - 1605**

Mit Anordnung Nr. 14 soll verhindert werden, dass etwa in einer gewissen Anlaufszeit Betriebserrichtungen vorgenommen werden, die den marktordnerischen Bestrebungen der Hauptvereinigung zuwiderlaufen. Die Anordnung Nr. 15 enthält zwei kurze Paragraphen über die Genehmigungspflicht neuzuerrichtender Betriebe des Seefischgrosshandels. Wortlaut der Anordungen auf S. 166.

**An.** - Views Differ on Sockeye Salmon Treaty. – Canad. Fisherm., XXIII, 3, 19. Gardenvale, Que. (1936). **b - 1606**

Brief account of the considerable divergence of opinion existing on the Pacific coast in connection with the sockeye-salmon treaty between Canada and the United States.

**An.** - Eine neue Verordnung über das Schlachten und Aufbewahren lebender Fische. – Dtsch. Fischwirt., III, 4, 51-52. Berlin (1936). **b - 1607**

Wortlaut und Kommentar zur Verordnung über das Schlachten und Aufbewahren von lebenden Fischen und anderen kaltblütigen Tieren vom 14. Januar 1936, welche eine wesentliche Erleichterung für den Einzelhandel in sich bringt.

**An.** - Dekret des polnischen Staatspräsidenten über die Regelung des Fanges von Seefischen. – Dtsch. Fischwirt., III, 50, 844-845. Berlin (1936). **b - 1608**

Kurze Notiz über den im Dziennik Ustav Nr. 84 vom 5. November 1936 unter Position 586 veröffentlichten Rahmendekret in Bezug auf Fänge polnischer oder Danziger Fischer.

**An.** - New Deal Legislation at Washington. – Fish. Gaz., LIII, 2, 14 & 21. New York (1935). **b - 1609**

Information on a bill introducing tarif for scallops and on legislation providing measures of control over fishing of sardines of the coast of California.

**An.** - Fight This Legislation. – Fish & Oyst. Rep., XVII, 3, 4-5. Tampa, Fla. (1936). **b - 1610**

Critical examination of Bills before Congress which, if passed, would seriously affect the southern fishing industry of the United States and particularly the shrimp, sponge, snapper and oyster industries.

**An.** - Norwegian fresh Fish. 1936 Regulation of Exports to Great Britain. – Fish Trad. Gaz., LIV, 2746, 21. London (1936). **b - 1611**

**An.** - British Trawlers' Federation prepares its own White-Fish Regulation Scheme. – Fish Trad. Gaz., LIV, 2775, 20-21. London (1936). **b - 1612**

A Committee of the B.T.F. has prepared for the consideration of its members a draft scheme for regulating the marketing of white fish under new legislation similar in principle to the Agricultural Marketing Acts, 1931 and 1933.

**An.** - Code Status of Pacific Fisheries. – Pacif. Fisherm., Yearbook 1935, 114. Seattle, Wash. (1935). **b - 1613**

Development of Codes of fair competition in 1934: Tuna industry under canning code. Oyster industry is codified early. Sardine processing first to get code. Many divisional codes are delayed. Miscellaneous branches gathered into four general groupings.

### *Naves praesidiariae.*

**Siegmund D. P.** - Mit Fischereischutzboot « Elbe » auf Kontroll- und Übungsfahrten in der Nordsee. – 3 Abb., Dtsch. Fischwirt., III, 15, 336-338. Bremerhaven (1936). **b - 1614**

Kurzer Bericht über die Fahrten der « Elbe » von 600 t., deren Hauptziel ausser der Erprobung aller technischen Einrichtungen die kriegsfisherische Aus- und Durchbildung der Besatzung ist.

**An.** - Grand Manan New Life Boats. – Canad. Fisherm., XXIII, 3, 15. Gardenvale, Que (1936). **b - 1615**

Critical note on the organization of the life service at Grand Manan district, which is generally recognized as being one of the most dangerous places on the Atlantic coast of Canada for fishermen and sailors.

**An.** - Kreuzer « Köln » auf Fischereischutzfahrt. – Dtsch. Fisch. -Rundschau, 9, 194-196. Bremerhaven (1936). **b - 1616**

Originalbericht des Kommandanten des Kreuzers « Köln », welcher eine Fischereischutzfahrt an die norwegische Küste ausgeführt hat. Im vorliegenden Berichte sind der zeitliche Verlauf der Fahrt, die Fischereiangelegenheiten und der Funkverkehr besprochen.

**An.** - Evolution of Naval Trawlers. – 1 fig., Fish Trad. Gaz., LIII, 2749, 19. London (1936). **b - 1617**

Past, present and future of the auxiliary patrol.

## BIOLOGIA PISCATUI APPLICATA

### *Hydrographia et Hydrologia piscatui applicatae. Studia.*

**Bell F. T.** - Fishery Management in Alaska based on Scientific Research. – 1 fig., Pacif. Fisherm., XXXIII, 5, 20-22. Seattle, Wash. (1935). **b - 1618**

Management based on economics; purpose of fishery regulation; regulations based on natural laws; red salmon investigations; pink salmon investigations; herring investigations.

**Bückmann A.** - Aus der Arbeit der Internationalen Meeresforschung im Bereich der Nordsee. – Dtsch. Fischwirt., III, 31, 491-492; 35, 555-557; 36, 575-577. Berlin (1936). **b - 1619**

Einleitende Bemerkungen über die Notwendigkeit wissenschaftlicher Forschungen für die Fischerei und die damit geknüpften Schwierigkeiten.

1. Schwankungen in der Stärke des Nachwuchses. 2. Wachstumsverhältnisse. 3. Verteilung der Fische. 4. Ergänzende allgemeine Untersuchungen. 5. Die Befischung der Nutzfischbestände.

**Hawke E. L.** - Weather and Fisheries. – Quart. Journ. R. Meteorol. Soc., LXII, 263, 147-149. London (1936). **b - 1620**

Brief report on the results obtained and communicated by Dr. Carruthers, of the Fisheries Laboratory, Lowestoft, from measurements of the flow of water through the Strait of Dover as gauged by continuous current meter observations at the Varne Light-vessel (Lat. 50° 56′ N., Long. 1° 17′ E.) and of applying of the data obtained to fishery problems, showing the influence of weather and wind on the piscine tribes.

**Iversen T.** - Sydøstgrønland. Fiskeforsøkene. (In Norv.). – 1 Map, 4 figs., Fiskerid. Skr., Ser. Havunders. (Rep. Norw. Fish. & Marine Invest.), V, I, 29-39. Bergen (1936). **b - 1621**

Risultati delle ricerche effettuate sui banchi di sabbia nelle acque dello Stretto di Danimarca e del Groenland sudorientale. Condizioni di temperatura e salinità e specie di pesce trovate.

**Lawson Hart J.** - Pilchards and Herring present different Problems to the Biologist. – Pacif. Fisherm., XXXIII, 9, 79-80. Seattle, Wash. (1935). **b - 1622**

Catch records studied. Effect of weather. Origins studied. Herring investigations. Age studies important.

**Lepin A. T.** - Biological Work on Novaja Zemlja in 1934-1935. (In Russ. & Engl.). – Bull. Arct. Inst., V, 12, 446-447, 468; VI, 2, 77-79; 100-101. Leningrad (1935 & 1936). **b - 1623**

Results of the study of the fauna of the Novaja Zemlja during the wintering. The study has been made in order to organize fisheries and hunting in the region for trading purposes.

**Lundbeck J.** - Woher kommen die Ertragsschwankungen in der Hochseefischerei ? – Dtsch. Fischwirt., III, 39, 617-618. Berlin (1936). **b - 1624**

Erörterung der zwei wichtigsten Ursachen, der Veränderungen im Nutzfischbestande und des Wechsels der Verbreitung des Fischbestandes. Ein Beispiel des Nutzens von Statistik und Marktuntersuchung.

**Schou G.** - Eksisterer det lovmessighet mellem fiske og nedbørmengde ? (In Norv.). – 3 figs., 4 tav., Naturen, LX, 7/8, 230-239. Bergen (1936).

(—) Meteorol. Ztschr., Bioklim. Beibl., 3, 66-68. Braunschweig (1936). **b - 1625**

È stato dimostrato che esiste un rapporto fra la quantità di pesci catturati e la quantità di pioggia caduta nel mese nel quale avviene la pesca o in quello precedente, nel Mare del Nord lungo la costa norvegese. Questo rapporto può quindi servire come prognostico del rendimento della pesca.

**Uda M. & Okamoto G.** - Effect of Oceanographic Conditions on « Iwasi » (Sardine) (*Amblygaster melanosticta*) Fishing in the Japan Sea. (In Jap., Engl. Rés.). – Journ. Imp. Fish. Exp. Stat., VII, 19-49. Tokyo (1936). **b - 1626**

Report based on records collected from 1918 to 1934 concerning periods, localities and depths of fishing, temperature and salt content of water; different size generations of fish; fluctuations of yield; migrations and forecast of fishing.

**Willer A.** - Um die Trockenlegung des Frischen Haffes. – 2 Abb., Dtsch. Fischwirt., III, 8, 115-119; 9, 134-136. Berlin (1936). **b - 1627**

Zusammenfassende Wiedergabe verschiedener Standpunkte betreffend das Problem der Trockenlegung des Frischen Haffes und die Auswirkungen einer solchen Massnahme auf die Fischerei, mit besonderer Berücksichtigung der Haffischerei, der Ostseefischerei und der Binnenfischerei.

**An.** - Grundsätzliches über die Seefischerei-Forschung. – Dtsch. Fisch.- Rundschau, 18, 408-409. Bremerhaven (1936). **b - 1628**

Die mit dieser Forschung verbundenen Schwierigkeiten. Notwendigkeit eigene Methoden zu entwickeln. Ratschläge für die Forschung.

**An.** - Die Bedeutung der Strömungsveränderungen durch die Strasse von Dover für die Fischerei. – Fischmarkt, IV, 6, 163-164. Cuxhaven (1936). **b - 1629**

An Hand der in « Fisheries Investigations », Ser. II, B. XIV, n° 4 von Carruthers veröffentlichten Ergebnisse seiner Strömungsuntersuchungen am Varne-Feuerschiff, wird ein Zusammenhang zwischen den Strömungsverhältnissen in der Strasse von Dover und der Herings- und Schellfischfischerei, festgestellt.

**An.** - New Method of Studying Herring devised by Alaska Investigators. – Pacif. Fisherm., XXXIII, 9, 81. Seattle, Wash. (1935). **b - 1630**

The most notable of the new methods is the marking of the herring on the spawning grounds described here. District races found.

## *Influentia temperaturae in piscaturam.*

**Enros B.** - Vad förorsakar växlingarna i strömmings-fiskets avkastning under olika år? (In Sved.). – Fisk.-tidskr. f. Finl., XLIII, 2, 23-26 Helsinki (1936). **b - 1631**

Apart from some general factors as tide phenomena, oscillations in food conditions and of year-classes A. claims that for the fishery of *Clupea sprattus* in the waters surrounding the Åland Islands the temperature of the water is the most important factor to take into consideration. It has been ascertained that *Clupea sprattus* does not dwell in a temperature above 14° C.

**Kida T.** - On the Surface Temperature of Water in the Tunny Fishing Grounds off Kusiro and Urakawa in Summer. (In Jap., Engl. Rés.). – 1 graph. fig., 2 tabl., Bull. Jap. Soc. Scient. Fish., V, 2, 87-90. Tokyo (1936). **b - 1632**

Data obtained from investigations during the summer of 1935 concerning the most favourable temperature, the fishing ground, the size of fish and the connexion between tunny fishery and shoals of other species of fishes.

**Takayama I., Uda M. & Tukusi Z.** - A Study of « Saba » (*Scomber japonicus* Houttuyn). Fishing in 1930 and 1931. (In Jap., Engl. Rés.). – 7 figs., tabl., Journ. Imp. Fish. Exp. Stat., VII, 1-18. Tokyo (1936) **b - 1633**

The investigations concern principally the influence of temperature on the catch.

**Thompson H.** - Relationship between Catch of Cod and Water Temperature. – Rep. Newfoundland Fish. Res. Lab. 1935, Div. Fish. Res., Dpt. Natur. Resources, Newfoundland, II, 5, 34-35. Cardiff (1936). **b - 1634**

1. On the Fishing Banks. Average number of quintals per haul during four voyages in the spring of 1935. Comparison with conditions in 1934 and 1935. 2. Inshore: Labrador fishery, on the east and south- west coast.

**Uda M.** - Locality of Fishing Centre and Shoals of « Katuwo » *Euthynnus vagans* (Lesson), Correlated with the Contact Zone of Cold and Warm Currents. (In Jap., Engl. Rés.). – 4 figs., Bull. Jap. Soc. Scient. Fish., IV, 6, 385-390. Tokyo (1936). **b - 1635**

The shoals of *Euthynnus vagans* are at first introduced by the invasion of warm current in the region and accumulated mechanically by the cyclonic convergent vortex produced between warm and cold current in consequence of the said invasion. Results of the last marking experiments which show that migration keeps pace with the movement of fishing centre.

## *Piscicultura.*

**Faouzi H.** - Successful Stocking of Lake Qaroun with Mullets (*Mugil cephalus* L. and *M. capito* Cuv.) from the Mediterranean. – 1 fig., tabl., Int. Rev. ges. Hydrobiol. u. Hydrogr., XXXIII, 5/6, 434-439. Leipzig (1936). **b - 1636**

Referring to a previous notice on the breeding of *M. capito* in Lake Qaroun in Nature, June 22, 1935, A. here gives a more detailed account of the stocking operations undertaken from 1931 in this lake. Thus, possibility has been offered to fish spawning at sea to lay its eggs in the lake of Qaroun without the agency of a marine milieu.

**Ikematsu W.** - Observations of Temperature, pH, and Dissolved Oxygen in Culture Ponds for Eel. – Journ. Fish. Culture, V, 1/2, 1-12. Tokyo (1935). **b - 1637**

**Kimura K.** - Further Note on the Death of Sardines in Confinement. (In Jap., Engl., Rés.). – Tabl., diagr., Journ. Imp. Fish. Exp. Stat., VI, 239-280. Tokyo (1935). **b - 1638**

Report on experiments undertaken by the Station during the summer of 1932. It results that *Sardinia melanosticta* is more resistant to injuries and irritation than *Engraulis japonica* but less resistant to asphyxiation. The latter seems to be more readily acclimatized to low oxygen concentration.

**Krauss D.** - Ueber die Wirkung verschiedener gelöster Düngemittel von K- Na- und Ca- Salzen auf Haut und Kiemen von Fischen. – 17 Abb., Ztschr. f. Fisch., XXXIV, 5, 787-817. Neudamm & Berlin (1936). **b - 1639**

Die tödliche Wirkung von Düngemitteln (Kali- und Ammonsalzen und Harnstoff) auf Fische beruht in einer Zerstörung des Kiemenepithels und Unterbindung des Gasaustausches. Die Wirkung auf die Haut ist im Prinzip die gleiche wie auf die Kiemenepithelien, jedoch sind dazu bedeutend höhere Konzentrationen erforderlich. Die histologischen Veränderungen treten in den Lösungen der Elektrolyte und Elektrolytgemische auf. Die Gewebsschädigungen beginnen jeweils an den Kiemenblättchenspitzen und bei der Haut an der obersten Deckschicht. (Aus Vf. Zus.)

**Needham P. R.** - The Hot Creek Rearing Ponds. – 4 figs., 2 tabl., Calif. Fish & Game, XXII, 2, 118-125. Sacramento (1936). **b - 1640**

Three separate springs in the Owens Valley, eastern California, with a temperature from 52° F. to 68° F. have been used by the California Trout Investigations from 1932. Report on the work.

**Roule L.** - Les Poissons et le monde vivant des eaux. La culture des eaux et l'économie aquicole. – 16 pl., 43 figs., IX, 348 pp. Libr. Delagrave. Paris (1936). **b - 1641**

Biologie économique du monde vivant. Le tribut alimentaire des eaux. L'élevage piscicole: piscicultures intégrales, assistées, surveillées et les piscicultures ornamentales. Hygiène aquicole. L'œuvre est accomplie par l'exploitation halieutique sur: la biologie de la pêche à la ligne, l'artisanat et les grandes industries de pêche; poissons migrateurs, le dépeuplement, la pollution, la bonification aquicole et les repeuplements. La conquête des eaux.

**Shaw P. A.** - Hatchery through Aerators. – 1 fig., 3 graphs, 3 tabl., Calif. Fish & Game, XXII, 2, 126-136. Sacramento (1936). **b - 1642**

Report on a study carried out in 1935 to determine the efficiency of aerators in use in hatchery troughs and to develop a simple and practical aerator of higher efficiency.

**Strodtmann S.** - Die dänischen Schollenverpflanzungen von der Nordsee in die Ostsee. – 1 Tab., Fischmarkt, IV, 2, 41-48. Cuxhaven (1936). **b - 1643**

Zusammenfassende Wiedergabe eines Berichtes des Leiters der Dänischen Biologischen Station Dr. Blegvad über die dänischen Schollenverpflanzungen in den Jahren 1928 bis 1933 und ihre Ergebnisse.

**Suyehiro Y.** - On the Various Causes of Mortality of Sardines. (In Jap., Engl. Rés.). – 2 pls. o. t., Journ. Imp. Fish. Exp. Stat., VII, 51-90. Tokyo (1936). **b - 1644**

Results of experiments undertaken since 1932 on *Sardinia melanosticta* and *Engraulis japonicus* concerning the resistance of the fish in the bait-tanks to external conditions, as for instance, want of oxygen, wounds etc.

**Taft A. C.** - The Waddell Creek Experimental Station for Trout and Salmon Studies. – 3 figs., 1 table, Calif. Fish & Game, XXII, 2, 99-104. Sacramento (1936). **b - 1645**

Description of the station dam and trap in operation since 1933.

**Comité Provincial de Pesca y Caza de Vizcaya** - Memoria del año 1935. – 27 pp., Com. Prov. Pesce y Caza de Vizcaya. Bilbao (1936). **b - 1646**

La repoblación piscicola.

**Imperial Fisheries Experimental Station (Japan)** - On Artificial Food in Fish Culture. (In Jap.). – Fish. Invest., Suppl. Rep., 3, Paper No. 38, 54-55. Tokyo (1936). **b. - 1647**

**Imperial Fisheries Experimental Station (Japan)** - The Culture of young « Ayu » (*Plecoglossus altivelis*, T. & S.) in their colourless Fry Stage. (In Jap.). – Tabl., figs., Fish. Invest., Suppl. Rep., 3, Paper No. 40. 78-100. Tokyo (1936). **b - 1648**

**Imperial Fisheries Experimental Station (Japan)** - Experiment in Trout Culture. (In Jap.). – Tabl., diagr., Fish. Invest., Suppl. Rep., 3, Paper No. 41, 101-139. Tokyo (1936). **b - 1649**

**“Quibbon„** - Laboratory Fertilisations of Fish Eggs. – Fish Trad. Gaz., LIII, 2752, 19. London (1936). **b - 1650**

Short note on the investigations conducted at the Marine Station at Keppel Pier, Millport, Buteshire during 1934–1935.

## *Praevisiones de piscatione – Tutela Piscium juvenum.*

**Altnöder K.** - Massnahmen zur Förderung des Plattfischbestandes in der Ostsee. Nur eine haushälterische Fischerei kann nachhaltige Fangerträge sichern. – Dtsch. Fischwirt., III, 48, 805-808. Berlin (1936). **b - 1651**

Die in der Ostsee vorkommenden 4 Plattfischarten. Statistische Angaben der Fangmenge während der letzten 10 Jahre. Schonmassnahmen: Schonzeit, Mindestmass und geregelte Maschenweite. Verpflanzung: zwei Möglichkeiten, die Verpflanzung von Nordseeschollen in die westliche Ostsee und die Aussetzung von Schollen der mittleren Ostsee in die westliche Ostsee; die Technik der Verpflanzung, schon ausgeführte Versuche; Massnahmen für die Flunder; Erhöhung des jetzigen Mindestmasses der Netze, Notwendigkeit internationaler Zusammenarbeit; Schulung der Fischer.

**Berg A.** - Warum geht der Flundernfang in der Ostsee zurück ? Betrachtungen eines Praktikers und Vorschläge zur Besserung. – Dtsch. Fischwirt., III, 23, 361–363. Berlin (1936). **b - 1652**

Die allzu starke Abfischung der schon bekannten fischreichen Gründe muss zum fortgesetzten Suchen nach neuen Fischgründen führen, worüber Vf. hier Auskunft gibt.

**Bretthofer F.** - Erzwungene Schongebiete in der Nordsee. – Dtsch. Fischwirt., III, 9, 133-134. Berlin (1936). **b - 1653**

Vf. beschreibt einige erzwungene Schongebiete in der südlichen Nordsee und ihre Bedeutung für die Erhaltung der Fischerei.

**Dixon C. A.** - Small Lobsters should be left to Grow. Decline forecasted unless Laws are changed. – Canad. Fisherm., XXIII, 11, 91. Gardenvale, Que. (1936). **b - 1654**

On the depletion of the industry of *Homarus americanus* at New Brunswick. Suggestion of minimum of size-limit.

**Fick H.** - Die Ueberfischung der Nordsee. – Fischmarkt, N. F., IV, 9, 237-241. Cuxhaven (1936). **b - 1655**

Kritik gegen die jetzt, besonders in der Deutschen Bucht von englischen und holländischen Fahrzeugen, ausgeübte Fischerei. Notwendigkeit internationaler Massnahmen.

**Fischer E.** - Eine wichtige Schutzmassnahme für die Ostseefischerei zur Erhöhung des Schollenmindestmasses in der mittleren Ostsee. – Dtsch. Fischwirt., III, 38, 601-603. Berlin (1936). **b - 1656**

Anlässlich der am 10. September 1936 veröffentlichten Polizeiverordnung für das Mindestmass der Scholle (*Pleuronectes platessa*) in der Ostsee gibt Vf. einen Ueberblick des Ertrages der Schollenfischerei während der letzten 9-10 Jahre. Notwendigkeit einer Schonung.

**Ghio B. A.** - Conservation in the California Trawl Fishery. – 4 figs., Fish. Gaz., LIII, 5, 34-35. New York (1936). **b - 1657**

Brief account of the measures elaborated and taken in the California trawl fishery in the effort to conserve the species of commercial fish, furnishing valuable information to the trawl operators the world over.

**Gilson G.** - Recherches sur la destruction du jeune poisson par la pêche crevettière sur les côtes de Belgique. – Ann. Inst. Etud. Marit. Belgique. Mém. 3, 1-72. Lierre (1935). **b - 1658**

Continuation des recherches sur la pêche des côtes de Belgique pendant 1906-1926 dont les résultats principaux ont été publiés dans Rapp. et Proc.-Verb. LI en 1928. Les nouvelles recherches comprennent le temps du Mai 1932-Août 1933, après la motorisation de la flotte belge de pêche crevettière: La pêche crevettière en général; écologie et faune des régions de pêche; méthodes de recherche et la protection des petits poissons, nécessité d'augmenter la grandeur des mailles du filet de 18 à 24 cm.

**Herrington W. C.** - Decline in Haddock Abundance on Georges Bank and a practical Remedy. – 15 figs., U. S. Dpt. Commerce, Bur. Fish., Fish. Circ. No. 23, 22 pp. Washington (1936). **b - 1659**

Decline in the stock noticed during the past five years. Cause of the decline. Future of Georges Bank. Remedial measures: increasing the size of the mesh used in commercial trawls (report on tests); minimum market size.

**Higgins E.** - Progress in Biological Inquiries 1934. – U. S. Dpt. Comm., Bur. Fish., Admin. Rep. 21, 332-399. Washington D. C. (1936). **b - 1660**

Investigations in order to determine which species of fish are showing depletion as a result of man's exploitation, what methods may be applied toward their conservation through the management of supplies on the basis of sustained yield, and the development of improved methods of cultivating aquatic animals. Research projects were organized in 1934 under three major branches: commercial fishery investigations in marine and fresh waters, aquicultural investigations, and shellfishery investigations for the development of oyster farming and the control of shellfish pests.

**Jenkins T.** - Müssen untermässige Schollen geschont werden? (Mit Nachwort v. A. Bückmann). – 3 Tab., Fischmarkt, IV, 8, 200-207. Cuxhaven (1936). **b - 1661**

Betrachtungen über die Notwendigkeit die untermässigen Schollen in den Gewässern der Nordsee zu schützen und Kritik der Auffassung Kyles, der behauptet, dass man die Jungschollenbestände lichten müsste um dadurch Ernährungs- und Wachstumverhältnisse zu verbessern. Stellungsnahme der Sachverständigen der Internationalen Meeresforschung in Bezug auf den Jungschollenschutz.

**Le Gall J.** - Prévisions de Pêche. – Pêche Marit., Pêche Fluv. et Piscic., XIX, 327-328. Paris (1936). **b - 1662**

**Marchand J. M. & Taylor W.** - Savings-Trawl Investigations in South African Waters during 1935. – 4 tabl., 10 pls., Union S. Africa. Dpt. Commerce & Ind., Fish. & Mar. Biol. Survey Div., Invest. Rep., 8, 43 pp. Pretoria (1936). **b - 1663**

The investigations begun in 1932 concern the saving of immature and unmarketable soles. Description of the savings-gear used. Account of the expeditions to the Agulhas Bank Sole-Grounds and to the Cape West Coast for the Stockfish fishery. Methods, tests and recommendations.

**Miles R. I.** - Norfolk Should Have Banner Oyster Season in 1937. – 3 figs., Fish & Oyst. Rep., XVII, 4, 3, 10-11. Tampa, Fla. (1936). **b - 1664**

Some predictions concerning the development and yield of the oyster season in Norfolk in 1937.

**Quinn A. H.** - Conservators of Three States Launch Drive to Protect Blue Crab. – Fish & Oyster Rep., XVII, 8, 6-7. Tampa, Fla. (1936). **b - 1665**

Conference held at Old Point Comfort, Va. in July 1936.

**N.** - Die Gefahr einer Uebersetzung in der westlichen Ostsee. – Dtsch. Fischwirt., III, 49, 825-827. Berlin (1936). **b - 1666**

Mit « Uebersetzung » versteht Vf. nicht « Ueberfischung » sondern eine zu grosse Zahl von Fangbetrieben, von Fahrzeugen und Geräten, was zu einer ungesunden Konkurrenz zwischen grösseren und kleineren Booten führt. Verschlag zur Besserung durch die « Neubildung deutschen Fischertums »: eventuelle Umsiedlungen von Fischerfamilien, neue Vorschriften für die Ausstattungen fischereilicher Betriebsgegenstände; Feststellung von Maximumstärke für Motoren usw.

**"Quibbon"** - The Lesson and the Warning of the Pacific Halibut Fishery. Our Atlantic Halibut Stocks are being decimated. – Fish Trad. Gaz., LIV, 2771, 19. London (1936). **b - 1667**

Some statistics indicating the serious state and some measures of protection to be taken.

**"Quibbon"** - The Fluctuation in Fish Stocks. – Fish Trad. Gaz., LIV, 2783, 20. London (1936). **b - 1668**

Cod, Haddock, Herring, Hake, Halibut and Salmon

**An.** - Bewegliche Schonzeiten. Wichtige Massnahmen für die Küstenfischerei. Gesetz zur Änderung der Gesetze der Nordsee-schollenfischerei der Flundern- und der Sprottenfischerei in der Ostsee. – Dtsch. Fischwirt., III, 28, 444-446. Berlin (1936). **b - 1669**

Änderung der in 1934 erlassenen Gesetze. Unter Berücksichtigung der nach der Temperatur (z. B. ungewöhnlich warme oder kalte Winter) sich ändernden Laichverhältnisse kann der Reichsminister für Ernährung und Landwirtschaft die Schonzeit verlängern oder abkürzen.

**An.** - Destroying the Fishing Grounds. – Fish. News., XII (10, X, 26). Aberdeen (1936). **b - 1670**

**An.** - Der deutsche Fischereischutz im Jahre 1935. – Fischmarkt, IV, 2, 50-51. Cuxhaven (1936). **b - 1671**

Kurzer Bericht über zwei Fischereischutzfahrten des Vermessungsschiffes « Meteor » vom 19. Februar bis 30. März 1935 und vom 1. Oktober bis 16. November 1935, und fünf Fischereischutzfahrten des Fischereischutzbootes « Weser ».

**An.** - Preserving our Commercial Fishing Interests. – Fish & Oyster Rep., XVII, 10, 13 & 17. Tampa, Fla. (1936). **b - 1672**

Some considerations with regard to a bulletin issued by the Bureau of Fisheries, prepared by W. C. Herrington, Aquatic Biologist of the Bureau for the preservation of the haddock industry. Necessity of changing fishing methods.

## *Aquarum pollutio et sanatio hydrica – Substantiae et organisma Piscibus obnoxia.*

**Fisk H.** - Die Schlechtwasserverhältnisse und die Auswirkungen auf den Fang in der Niederelbe. – Fischmarkt, 9, 231-232. Cuxhaven. (1934). **b - 1673**

Bedeutung des niedrigen Wasserstandes und des darauf folgenden Schlechtwassers für die niederelbische Fischerei. Massnahmen, die zur Bekämpfung dessen Auswirkungen dienen.

**Galtsoff P. S., Prytherch F., Smith R. O. & Koehring V.** - Effects of Crude Oil Pollution on Oysters in Louisiana Waters. – U. S. Dpt. Comm., Bull. Bur. Fish., XLVIII, 18, 143-210. Washington (1935). **b - 1674**

Report on the investigations undertaken to study the causes of the great mortality of oysters observed during 1932-33 in Louisiana Waters. It results that crude oil discharged in the sea whether floating on the surface or deposited on the bottom yields water- soluble substances which narcotize the ciliated epithelium of the gills thus causing a gradual starvation and weakening of the oyster. The chemical nature of these substances is however not yet determined.

**Poteriayev E. A.** - A Review of the Sanitary-Biological Investigations in the Black Sea. (In Russ., Engl., Rés.). – Works Arnoldi Biol. Stat., II, 1, 131-148. Novorossyisk (1936). **b - 1675**

Rate of intermixing of the sewage with the sea water in horizontal and vertical directions and factors concerned. Rate of oxidation of organic matter dissolved in the sewage. Experiments. Marine organisms as indicators. Factors concerned with the biological analysis of the sea-water.

**An.** - Fishery Scientists prove that Oil Pollution is Detrimental to Oyster on Gulf Coast. – Fish. & Oyst. Rep., XVI, 7, 5. Tampa, Fla. (1935) **b - 1676**

Short note on investigations sponsored by the U. S. Bureau of Fisheries, proving that the dumping of crude oils and brine from the wells into the bays of Louisiana will be increasingly disastrous to the oyster fishery of that region.

## PORTUS AD PISCANDUM

**Belloc G.** - Les ports de pêche du littoral français de l'Atlantique: La côte de Vendée et de Gascogne. – 22 fig., Mém. Off. Pêches Marit., Man. Pêches Marit. franç., 11, 3, 122-138. Paris (1936). **b - 1677**

Sur cette côte les ports sont nombreux: Pornic, Herbaudière, Port Joinville, et Les Sables-d'Olonne, qui est un port des plus importants de la côte Ouest ainsi que le port de La Rochelle, qui est devenu aussi le plus grand marché au poisson frais du littoral atlantique. La flotte de pêche, le port et l'écoulement des produits de la pêche.

Le port d'escale de La Pallice, Fouras et les établissements ostréicoles de La Tremblade et de Marennes. Sur la côte de Gascogne: Bordeaux, centre principal d'exploitation de l'industrie morutière française; Arcachon, qui a acquis importance grâce à l'ostréiculture et à la pêche à la Sardine; Biarritz et les ports de Saint Jean-de-Luz et de Socoa qui arment à la pêche de la Sardine et de l'Anchois.

**Croker R. S.** - What is the World's greatest Fishing Port ? – 2 graphs, 1 tabl., Calif. Fish & Game, XXII, 1, 40-42. Sacramento (1936). **b - 1678**

Statistical information on 12 of the word's leading fishing ports, of which Hull and Grimsby come in the first line.

**Desbrosses P.** - Les ports de pêche du littoral français de l'Atlantique: La côte sud de Bretagne. – 25 fig., Mém. Off. Pêches Marit., Man. Pêches Marit. franç., 11, 3, 100-121. Paris (1936). **b - 1679**

Sur la côte sud de la Bretagne, de Camaret au Croisic c'est un chapelet serré de ports de pêche: environ 35.000 pêcheurs sont concentrés sur cette côte. La pêche principale est la pêche de la Sardine et puis celle à congres, à raies, à langouste et aussi aux maqueraux. Douarnenez, Audierne, Concarneau. Le port de Lorient-Kéroman, entré en service en 1927 et exploité par une société concessionaire: outillage et fonctionnement du port; les bateaux de pêche; les équipages; la pêche et les apports; l'écoulement des produits de la pêche. Les petits ports qui gravitent autour de Lorient sont: Kerroch, Port Luis, Gâvrais, Groix avec ses 225 thonniers et Etel, Quiberon, Turballe et Saint-Nazaire.

**Göhring H.** - Die Beteiligung der deutschen Seehäfen am Walfang vergangener Tage. – Dtsch. Fisch- Rundschau, 16, 364-365; 17, 386-387. Bremerhaven (1936). **b - 1680**

Die Bedeutung der deutschen Hansestädte für den Walfang. Wetteiferung unter England, Holland und Dänemark. Deutsche Walfänger im fremden Dienst. Das Jahr 1723 Gipfelpunkt in der deutschen Grönlandfahrt. Rückgang.

**Le Gall J.** - Les ports de pêche du littoral français de la Mer du Nord et de la Manche. – 36 fig., Mém. Off. Pêches Marit., Man. Pêches Marit. franç., 11, 3, 69-100. Paris (1936). **b - 1681**

Les ports sur la côte de la Mer du Nord sont rares et n'ont pu s'établir qu'à l'embouchure des petits fleuves côtiers comme Gravelines, Dunkerque et Calais. Description détaillée du port de Boulogne-sur-Mer; le tonnage de la flottille de pêche et la production des différents pêches; la halle au poisson; le transport par chemin de fer; l'enseignement technique et professionel des Pêches. Au sud de l'embouchure de la Somme jusqu'à l'estuaire de la Seine: Le Tréport, Dieppe, Saint-Valéry-en-Caux et Fécamp. Sur la côte Normande: Honfleur, Trouville, Port-en-Bessin, Grandcamp et Barfleur. Sur la presqu'île du Cotentin: Cherbourg et Granville. Sur la côte Nord de Bretagne: Caucale, Saint-Malo et Saint-Servan.

**Mühleissen E.** – Der Fischmarkt Cuxhaven. – Dtsch. Fischwirt., II, 36, 690–692. Berlin. (1935). **b - 1682**

Günstigkeit der geographischen Lage Cuxhavens vom Standpunkte der Entwicklung der Fischerei und des Fischhandels. Entwicklung seines Hafens und seines Marktes seit 1908, statistische Angaben über ihre Leistungen und über ihren weiter zunehmenden Verkehr.

**An.** - Grosszügiger Ausbau des Altonaer Fischereihafens. – Dtsch. Fisch.-Rundschau, 19, 429. Bremerhaven. (1936). **b - 1683**

Einige Einzelheiten des Bauprojektes.

**An.** – Milford Haven. Greater Landings, More locally-owned Boats. – Fish Trad. Gaz., LIV, 2796, 19–20. London. (1936). **b -1684**

Optimistic prospect. New methods adopted. Landings up: Values down. Herring fishing revived. Landings of soles.

**An.** - Billingsgate. A Year of Trial and Triumph. – Fish Trad. Gaz., LIV, 2796, 21. London (1936). **b - 1685**

Salmon trade. Extension proposals. Danish supplies. (See also ibidem, 2773, 14-16, 1936).

**An.** - Grimsby. Triumph of the Big Ship: Heavier Catches: Smaller Values. – Fish Trad. Gaz., LIV, 2796, 29 & 33. London (1936). **b - 1686**

Improved quality. Working profit to owners. Regular supplies. The Herring fishery. Herring landings by trawlers. Modern oil refinery. Market extensions. Sea-fish commission's report. Insurance fund.

## METHODUS ET INSTRUMENTA PISCATIONIS

### *Retia et instrumenta.*

**Arcidiacono F.** - Per una maggiore conoscenza della pesca con i consi (palamiti, palangresi) nel golfo di Squillace. – Boll. Pesca, Piscicult. Idrobiol., XII, 1, 35-50. Roma (1936). b - 1687

Risultati di saggi di pesca eseguiti dai pescatori di Riposto sotto la direzione dell'A.: zone per la pesca dei merluzzi giovani e merluzzi grossi nel Golfo di Squillace e pesca delle lampughe con i consi galleggianti. Vantaggio di applicare alla barca il sistema di motore interno con le eliche laterali.

**Atkins W. R. G.** - The Preservation of Fishing Nets by Treatment with Copper Soaps and other Substances. Part III. – 6 tabl., Journ. Mar. Biol. Ass., XX, 3, 627-641. Plymouth (1936). b - 1688

Report on trials with different preservatives for silk plankton nets, trawl nets, fishing lines.

**Atkins W. R. G. & Purser J.** - The Preservation of Fibre Ropes for Use in Sea–Water. – 11 tabl., Journ. Mar. Biol. Ass., XX, 9, 643-654. Plymouth (1936). b - 1689

Report on 11 tests carried out for one year in sea-water near Plymouth.

**Bretthofer W.** - Worauf kommt es beim Herings-Trawl an ?. – 1 Abb., Dtsch. Fischwirt., III, 33, 526-527. Berlin (1936). b - 1690

Entstehung und Entwicklung der Trawlheringsfischerei. Erträge während 1908-1913. Skizze des modernsten Trawlfanggerätes.

**Bretthofer W.** - Es war ein langer Weg bis zum leistungsfähigen Fischdampfer-Fanggeschirr. – Dtsch. Fischwirt., III, 43, 685, 686 & 689. Berlin (1936). b - 1691

Historische Uebersicht der Entwicklung der wichtigsten Fanggeräte der Fischdampfer.

**Bull H.** - En oversikt over fremskrittene i konservering av fiskegarn. (Norv., tabl. en franç.). – 6 tabl., Stat. Fiskerifors. stasj. virks. 1934, Årsber. v. Norg. Fisk. 1934, 3, 22-66. Bergen (1936). b - 1692

Sur la destruction des filets de pêche: facteurs mécaniques et chimiques, bactéries. Conservation avec des tanins, différentes méthodes avec des composés cuivreux et autres. (Cunningham, Lindeman, Olie, Fillon).

**Deed W. J.** - The Technical Section. – 16 figs., Fish. Gaz., LIII, 13-18. New York (1936). b - 1693

Some information as to the principles of practical net-mending, the necessity of severe engine's tests to prove its worth: rope, its size and terms; electricity and its use in the fishing fleet and some other interesting items concerning the fishing industry.

**Forsell Fr.** - Impregnering av fiskredskap (In Sved.). – Fisk.-tidskr. f. Finl., XLIII, 2, 36-39. Helsinki (1936). b - 1694

Uebersicht der gewöhnlichst vorkommenden Imprägnierungsmittel und ihrer Anwendung; Empfehlung des sogen. « Weibull's Cutch ».

**Gavrilov N.** - La pêche au chalut dans l'URSS. (En russe). – Rybn. Khoz. USSR (Econ. Pêche URSS), 1, 13-16. Moskva (1936). b - 1695

**Kondo Yasusi** - Influence of the Difference in Size of Cotton Yarns Composing the Netting Cord on the Breaking Strength and the Flexibility of the Cord. (In Jap., Engl. Rés.). – 4 tabl., Bull. Jap. Soc. Scient. Fish., IV, 5, 315-317. Tokyo (1936). b - 1696

When the linear density of cords is nearly the same: i) the number of twists at which the cord shows the maximum strength is less numerous when it is composed of finer yarns; ii) the cord with that or less number of twists is more flexible and stronger when it is composed of finer yarns. (A.).

**McGrath H. G.** - A Water-Glass. – 1 fig., Canad. Fisherm., XXIII, 1, 14. Gardenvale, Que. (1936). b - 1697

Description of a glass-bottomed bucket for peering down into the water to see if there is any fish in the nets.

**Miyamoto H.** - The Model Experiments on Sailing Trawl Net used in Mikawa Bay. (In Jap., Engl. Rés.). – 3 figs., 5 tabl., Bull. Jap. Soc. Scient. Fish., IV, 6, 391-396. Tokyo (1936). b - 1698

The tension of the net according to various pulling speeds is measured on the fishing ground where the tidal currents prevail and is found to have a constant value of 35 kgs due to the slip on the sea- bottom. Determination of the coefficient of tensions.

**Miyamoto H.** - Model Experiments on Trawl Nets. (In Jap., Engl. Summ.). – 5 figs., 3 tabls., Bull. Jap. Soc. Scient. Fish., V, 1, 19-24. Tokyo (1936). b - 1699

Results of experiments on the efficiency of keeping the mouth of trawl net open, made with Otter bord of suitable shape and width attached to a kind of drag nets used in Japan.

**Miyamoto H.** - Model Experiments on Sea Fixed Nets for fishing Amber-fish, *Seriola*. I. Ettyû Keddle Net and Ordinary Keddle Nets. II. Trap Nets on the Fishing Grounds under Strong Tidal Currents. (In Jap., Engl. Rés.). – 4 figs., 4 pls., 6 tabl., Bull. Jap. Soc. Scient. Fish., V, 3, 158-170; 4, 227-232. Tokyo (1936). b - 1700

Experiments with three models of amber-fish keddle nets for the study of the deformation of various currents. The deformation of the nets under various currents examined with two models and shown in reproduced photographs.

**Police G.** - Manuale pratico sugli attrezzi per la pesca. – 40 fig., 153 pp., Manuali Diana. Tip. Giannini & Giovannelli. Firenze (1936). b - 1701

Elenco descrittivo delle varie reti a sacco o a strascico, con speciale riguardo alla manovra della « lampara », delle reti verticali, delle reti quadre o reti orizzontali. Gli ami, le lenze, i palangresi e le varie esche più in uso. Le nasse per Crostacei, Molluschi e Cefali. I grossi arnesi a punta: fiocina, ganci, grumbolle, pala.

**Puustinen W.** - Tanning Gillnets. How one Fisherman gets long Life from his Web. – Pacif. Fisherm., XXXIII, 1, 32-33. Seattle, Wash. (1935). **b - 1702**

Preparation of tan. Hot solution damaging. Second treatment important. A Nine- year Net. Regular bluestoning necessary. Sunlight ruinous to nets.

**Sugano S.** - The Model Experiments on Fixed Nets for Fishing Salmons in Kamtchatka. (In Jap., Engl. Rés.). – 4 figs., 6 tabl., Bull. Jap. Soc. Scient. Fish., IV, 6, 397-406. Tokyo (1936). **b - 1703**

Experiments undertaken on two models of the original nets, made according to Tauti's principles of model net construction, show that, when the velocity of current excedes a critical value, i. e. 2 $^{2}/_{5}$ mile/hour the sinkers and the nets float away.

**Sugano S.** - Experiments with Models of a Surface Trawl Net for Fishing Salmons. (In Jap., Engl. Summ.). – 6 figs., 5 tabls., Bull. Jap. Soc. Scient. Fish., V, 1, 12-18. Tokyo (1936). **b - 1704**

The best form for fishing salmons of a surface trawl net to be used with two boats was searched for with models constructed according to Tauti's principle. After various improvements, a form was obtained, with which the net assumes special shapes, described in detail in the present article. (from A: s abstr.).

**Tibby R. B.** - The Construction of the Purse Seine as used in the San Pedro Sardine Fishery, 1935-1936 Season. – 1 fig., Calif. Fish & Game, XXII, 4, 310-313. Sacramento (1936). **b - 1705**

The net described here (also shown in diagram) is the third type developed since the earliest days of sardine fishery in California.

**Yasuda H.** - Change in Length and Diameter of a Netting Cord at the Breaking. (In Jap., Engl. Rés.). – Bull. Jap. Soc. Scient. Fish., V, 2, 85-86. Tokyo (1936). **b - 1706**

Report on experiments with 3-ply cotton cord, of which each thread consists of 20's yarns.

**Imperial Fisheries Experimental Station (Japan).** - Meshes Experiments for towing Nets (In Jap.). – 3 pls., tabl., diagr., Fish. Invest., Suppl. Rep. 3, Paper No. 30, 1-13. Tokyo (1936). **b - 1707**

**H. P.** - Neues Gerät zum Fang von Besteckfischen. – Dtsch. Fischwirt., III, 41, 657. Berlin (1936). **b - 1708**

Ein 90 Fuss langes Schleppnetz zum Fang von Suttern zum Besteck der Dorschangeln benutzt seit einiger Zeit von den Neukuhren Fischern. Weitere Beschreibung.

**“Quibbon „** - Size Limits and Mesh Regulations. – Fish Trad. Gaz., LIV, 2778, 21. London (1936). **b - 1709**

Review of the size limits now in force in Germany, Denmark, Finland, France, Holland, Sweden.

**An.** - Larger Size Trawl Mesh will save small Fish. – 1 fig., Fish. Gaz., LIII, 12, 11 & 34. New York (1936). **b - 1710**

Experts advocate a four and three-quarter inch mesh to prevent destruction of small fish.

**An.** - International Conference on Mesh of Fishing Nets. – Fish Trad. Gaz., LIV, 2792, 14. London (1936). **b - 1711**

Short account of an international conference of twelve Nations assembled in London in November 1936.

**An.** - Trawling in British Columbia Waters. – 4 figs., Pacif. Fisherm., XXXIV, 1, 25-26. Seattle, Wash. (1936). **b - 1712**

Temporary development at Rupert. Varieties of fish taken. Types of boats and gear used.

## *Piscatus hamatilis, litoranea et in altum.*

**Fick H.** - Die Finkenwärder und die Hochseefischerei. – 6 Abb., Fischmarkt, IV, 6, 144-151. Cuxhaven (1936). **b - 1713**

Kurzer geschichtlicher Bericht über die Bildung der Finkenwärder Insel, welche in 1236 durch eine Sturmflut von Gorieswärder abgetrennt worden ist, und über die Entwicklung und Bildung ihrer Fischereibetriebe, mit besonderer Berücksichtigung der Hochseefischerei.

**Kemp A.** - Handlining on the Grand Banks. – 1 photo, Fish. Gaz., LIII, 4, 9. New York (1936). **b - 1714**

A veteran fisherman tells us about the old days of handlining of the Great Banks describing the vessels and the campaign on the Banks during the old days when fishing on the Banks was salt-fishing and all hand lining.

**Lundbeck J.** - Die geographischen Grundlagen der deutschen Hochseefischerei. – Dtsch. Fischwirt., II, 52, 958-959. Berlin (1935). **b - 1715**

Kurze zusammenfassende Wiedergabe des Inhaltes der Dissertation 1935 von Gerd Wichmann: « Die geographischen Grundlagen der deutschen Hochseefisherei und ihre Entwicklung nach dem Weltkrieg », welche eine knappe, prägnante Darstellung der deutschen Seefischerei und ihrer natürlichen Grundlagen enthält.

**Lundbeck J.** - Die Erträge der Hochseefischerei im Jahre 1935. – Dtsch. Fisch.-Rundschau, 3, 54-55. Bremerhaven (1936).

( — ) Dtsch. Fischwirt., III, 5, 65-66. Berlin (1936). **b - 1716**

Kurze Uebersicht über das Jahr 1935 als ganzes Jahr und Besonderheiten der Ertragsverhältnisse in der deutschen Hochseefischerei in Jahre 1935. Die Fischereierträge unter Island, in der Barentssee, unter den Bäreninseln, an der norwegischen Küste, in der Nordsee, im Kattegat und in der Heringsschleppnetzfischerei.

**Ulrich E.** - Volkswirtschaftliche Bedeutung der Hochseefischerei. – Fischmarkt, IV, 8, 216-218. Cuxhaven (1936). **b - 1717**

Anlässlich des am 25-28. September gefeierten 50-jährigen Jubileums werden kurz die Entwicklung der deutschen Hochseefischerei, die Aufwärtsbewegung des gesamten Hochseefischereigewerbes, die vielseitige Verwendung des Seefisches, und die Beteiligung der Hochseefischerei an der Volksernährung in Deutschland besprochen.

**Marktverwaltung des Staatlichen Fischereihafens Wesermünde-B'Hvn.** - Die Wirtschaftslage des Hochseefischereigewerbes an der Unterweser. – 4 Tab., Dtsch. Fisch.-Rundschau, 8, 165-169. Bremerhaven (1936). **b - 1718**

Umfassender Bericht über die Entwicklung der Fischwirtschaft zum Schluss des Geschäftsjahres 1935, aus welchem es klar hervorkommt, dass gegenüber dem Vorjahre das Hochseefischereigewerbe, in seiner Gesamtheit gesehen, einen beachtenswerten Aufschwung genommen hat.

**Seefischmarkt A. G.** - Die Hochseefischerei im Jahre 1935. Die Aufwärtsentwicklung hielt weiter an. – Dtsch. Fischwirt., III, 1, 1-3. Berlin (1936). **b - 1719**

Schilderung des Aufschwunges der deutschen Hochseefischerei nach 1934, wo die langjährige Krise überwunden worden ist, und der weiteren Entwicklung derselben in den nachfolgenden Jahren, mit besonderer Berücksichtigung des Fischdampferreedereigewerbes, der Schleppnetzfischerei, des Seefischgrosshandels, der Fischkonserven-Industrie, usw.

## *Classiculae piscatoriae.*

**Brenning O.** - Die Zukunft der « Zukunft ». – Dtsch. Fisch.-Rundschau, 7, 143-144. Bremerhaven (1936). **b - 1720**

Stellungsnahme des Vf., welcher einer der Hauptverfechter des neuen Fischereifahrzeugtyps ist, zum Bausystem des neuen Fischkutters « Zukunft ». über dessen Probefahrt in einem anderen Hefte des « Dtsch. Fisch.-Rundschau » kürzlich berichtet worden ist.

**Bretthofer W.** - Grössere Fänge und bessere Qualität. Antriebskraft und Wirtschaftlichkeit in der Hochseefischerei. – Dtsch. Fischwirt., III, 22, 346-347. Berlin (1936). **b - 1721**

Ueber die absolute Ueberlegenheit der neuen Dampfer mit hoher Antriebskraft, womit ein grösserer Aktionsradius der Fischerei erreicht wird.

**Bretthofer W.** - Wirtschaftliche Betriebsformen und Fahrzeuge in der kleinen Hochseefischerei. Der stabile und solide Hochseekutter hat sich bewährt. – Dtsch. Fischwirt., III, 30, 475-476. Berlin. (1936). **b - 1722**

Beispiele einiger veränderten Betriebsformen in der Ostsee. Verbesserungen der Schleppnetzfischerei. Neubautätigkeit während der nationalsozialistischen Regierung.

**Clark G. H.** - San Francisco's Paranzella Trawling., – 2 figs. Pacif. Fisherm., XXXIII, 9, 27-28. Seattle, Wash. (1935). **b - 1723**

Historical notes on this fishery. The paranzella gear. Operation methods. The species taken. Recent changes in fishery. Statistics.

**Fick H.** - Ueber die technische Entwicklung der Fischdampfer. – Fischmarkt, N. F., IV, 1, 9-13. Cuxhaven. (1936). **b -1724**

Rückblick auf die technische Entwicklung der deutschen Fischdampfer während der 50 Jahre, welche seit der Indienststellung des ersten deutschen Fischdampfers verflossen sind.

**Fischer E.** - Kleinfischerei und Dampferfischerei Konkurrenz oder gegenseitige Ergänzung ? – Dtsch. Fischwirt., III, 43, 709-710. Berlin (1936). **b - 1725**

Der kleine Fischdampfer war eine schwere Konkurrenz für den Kutter. Heute überschneiden sich die Arbeitsgebiete nicht mehr. Die grossen Fischdampfer liefern den Massenfisch, die Kutter ergänzend den Edelfisch. (Vf.).

**Hilker C.** - Die Verjüngung der deutschen Fischereiflotte. Seit der Machtübernahme bis Ende 1935 wurden 53 Logger und 21 Fischdampfer neu in Dienst gestellt. – Dtsch. Fischwirt., III, 14, 209-210. Berlin (1936). **b - 1726**

Die Entwicklung der deutschen Fischereiflotte ist zu keiner Zeit so schnell vorangeschritten wie jetzt. Verzeichnis der sich im Bau befindenden Schiffe.

**Hübbenet (von) A. K.** - Schönheit der Arbeit auf deutschen Seeschiffen. – 4 Abb., Dtsch. Fisch.-Rundschau, 23, 538-540. Bremerhaven (1936). **b - 1727**

Neue moderne Einrichtungen für die Besatzung.

**Mikhajlov S.** - Sur le problème des « normes » du régime de travail d'un trawler (chalutier) dans la Mer de Barents (En ordre de discussion). (En russe). – Tabl., Rybn. Khoz. URSS, 2, 41-45. Moskva (1935). **b - 1728**

**Noghid L. M.** - Les bateaux de pêche. (En russe). – 80 fig., 41 tabl., 134 pp., Glavn. Red. Soudostr. Literat. Leningrad-Moskva (1935). **b - 1729**

**Petrich H. M.** - Development of the Purse Seiner. – 3 figs., Pacif. Fisherm., XXXIV, 1, 18-19. Seattle, Wash. (1936). **b - 1730**

The origin of seine fishing is to be sought in the coasts bordering the Adriatic Sea. Further development until today when there are many hundreds of purse seiners operating in Alaska, B. C., Washington, Oregon, California and Mexico.

**br.** - Worin bestehen die Besonderheiten der neuen Fischdampfer ? – Dtsch. Fischwirt., III, 47, 797. Berlin (1936). **b - 1731**

Ueber die gewaltige Leistungsfähigkeit der neuen Fischdampfer. Beschreibung eines Prototypus, des Schiffes « Wilhelm Michaelsen », neulich erbaut.

**F.** - Die Finkenwärder Hochseefischereiflotte im Jahre 1935. – Fischmarkt, IV, 2, 48-49. Cuxhaven (1936). **b - 1732**

Kurzer Bericht über die Ergebnisse der Finkenwärder Hochseefischerei, welche in Januar 1935 von etwa 25 Fahrzeugen im Kattegat betrieben worden ist. Angabe der Fischereiergebnisse pro Monat und Rückblick auf die gesamte Tätigkeit der Fischereiflotte.

**W. Br.** - Leistungsfähigkeit und altersmässige Zusammensetzung der deutschen Fischdampferflotte. – Dtsch. Fischwirt., III, 24, 378-379. Berlin (1936). **b - 1733**

Umfang der Fischdampferflotte vom 1. Januar 1936: Angabe von Tons und Zeit, wo sie gebaut worden sind. Änderung des Fischdampfertypus mit der eintretenden Fischerei um Island und in der Barentssee nach 1925.

**Wu C. Y.** - The Fishing Vessels of Chekiang. (In Chin., Engl. Summ.). – 5 figs., 3 tabls., 3 pls., Bull. Chekiang Prov. Fish. Exp. Station, II, 4, 1-10. Tinghai, Chek., China (1936). **b - 1734**

Description containing technical details of the structural features of the different types of fishing vessels, completed by a list of the estimated number, fishing methods, fishing season, and catch of the types of vessels described.

**An.** - Nickel Lined Fish Holds in Boston Trawlers. Designed to Save Fish Spoilage in Hot Weather. – Canad. Fisherm., XXIII, 12, 14-15. Gardenvale, Que. (1936). **b - 1735**

Description of the new forty fathom fisheries trawler « Storm » the hold of which is lined with pure nickel with a special air-cooling installation.

**An.** - « Zukunft . ». – 5 Aufn., 1 Schema. Dtsch. Fisch.-Rundschau, 4, 69-72. Bremerhaven (1936). **b - 1736**

Beschreibung des neuen deutschen Hochseemotorkutters « Zukunft ! », der am 15. Dezember 1935 vom Stapel gelaufen ist und am 4. Februar 1936 seine erfolgreiche Probefahrt bestanden hat.

**An.** - Manöverier- und See- Eigenschaften der Fischdampfer. – 1 Skizze, Dtsch. Fisch.-Rundschau, 23, 540-541. Bremerhaven (1936). **b - 1737**

Kurzer Bericht über einen Vortrag gehalten von Kapitän Bretthofer in einer Sitzung des Nautischen Vereins zu Hamburg. Schwierigkeiten des Fischdampfers, Beispiele von verschiedenen Manövrieren; Hinweisung auf wertvolle und anschauliche Ausführungen über das Manövrieren der Fischdampfer.

**An.** - Die norwegischen Fischer und die neuen norwegischen Fischdampfer. – Dtsch. Fischwirt., III, 5, 68-69. Berlin (1936). **b - 1738**

Betrachtungen der beteiligten norwegischen Kreise über die Auswirkung der Einführung von Fischdampfern in die norwegische Fischereiflotte.

**An.** - Eastern Trawler Building Program Starts. – 1 photo, Fish. Gaz., LIII, 1, 5 & 14. New York (1936). **b - 1739**

Brief account of the building of three new ultramodern trawlers for the Bay State Fishing Co. of Boston; brief illustration of the design of the vessels.

**An.** - All Sections of the Fisheries Report Increased Boat Building. – 2 figs., Fish. Gaz., LIII, 3, 5-6 & 31. New York (1936). **b - 1740**

Brief report of a greatly increased building program in every section of the United States where commercial fisheries are to be found in spring 1936.

**An.** - Tuna Clipper Modernization. – 2 figs., Pacif. Fisherm., XXXIII, 4, 18-19. Seattle, Wash. (1935). **b - 1741**

Diesel auxiliaries installed, many vessels improved; bait wells removed; power skiffs carried; the new cooling systems; the « May-flower's » system (concerned with brine cooling). See also ibid., 6, 22-25.

**An.** - 24 New Northern Seiners. – 7 figs., Pacif. Fisherm., XXXIII, 7, 11-13. Seattle, Wash. (1935). **b - 1742**

These new purse seine boats fall into two classes, those ranging upward from 70-ft and those from 50-ft, constructed respectively for fishing sardines, tuna, herring and salmon in the Pacific and for salmon seining in Alaska. Descriptions.

**An.** - New Wrinkles in Purse Seining. Capt. Dick Suryan tries out Transom Stern, Linen Web and Power Net Spool. – 2 figs., Pacif. Fisherm., XXXIII, 8, 21-22. Seattle, Wash. (1935). **b - 1743**

Description of the « Rio de Oro » the first modern transom stern seine boat.

**An.** - The New Fleet of 1934-35. – 13 figs., Pacif. Fisherm., Yearbook 1935, 148-152. Seattle, Wash. (1935). **b - 1744**

New trends. Steel construction. New clippers. Modernization program. Versatile craft. 1934 tenders. Seine boat construction. The Halibut fleet. Outlook for 1935 shows continued building activity. Crack craft of 1934.

## *Naviculae earumque constructio – Instrumenta – Motores – Radioapparatus.*

**Bähr O.** - Schiffsbodenfarben. – 3 Tab., Dtsch. Fisch.-Rundschau, 12, 269-270. Bremerhaven (1936). **b - 1745**

Wiedergabe eines die Reederei und die Schiffswerften speziell interessierenden Artikels aus der « Chemikerzeitung », 1936, 397, über den Anstrich der eisernen Schiffsböden zum Schutz gegen Rost und Ansatz von tierischen und pflanzlichen Meeresorganismen.

**Bretthofer W.** - Das Echolot unentbehrlich, aber seiner Verwendung sind Grenzen gezogen. Lassen sich mit dem Echolot in der Hochseefischerei die Fischschwärme und Fangverhältnisse näher bestimmen ? – Dtsch. Fischwirt., III, 36, 573-574. Berlin (1936). **b - 1746**

Die mit der Verwendung des Echolots verbundenen Schwierigkeiten. Seine Bedeutung als nautisches Hilfsmittel.

**Bucci Galardini R.** - Problemi tecnici e tecnologici della pesca italiana. Elementi, temi, sviluppi. – Boll. Pesca, Piscicolt. Idrobiol., XII, 6, 472-501. Roma (1936). **b - 1747**

Valore della tecnica italiana. Autarchia e tecnica nella pesca. Psicologia peschereccia. Il problema statistico ed analisi quantitativa e qualitativa della pesca meccanica. Elementi ed analisi della motorizzazione e suo sviluppo. Macchinari e motori ausiliari di bordo. Brevetti esteri. Il battello sperimentale-tipo. Tavole statistiche delle installazioni dei motori in battelli pescherecci.

**Deed W. J.** - The Technical Section. – 7 phot., Fish. Gaz., LIII, 1, 15-18; 2, 15-18; 4, 15-18; 8, 14. New York (1936). **b - 1748**

Information on winter fishing, marine batteries, the importance of lubrication oils (by H. M. Wesson); splicing ropes, new types of direction finders; new English patent trawling gear, propellers, a new type steel trawl float, electric wedded steel fishing tug and « Everyday » dry cell batteries for lights and ignition.

**Deed W. J.** - Development of the Diesel. (To be continued). – Fish. Gaz., LIII, 8, 14. New York (1936). **b - 1749**

Brief outline of the main types.

**De Medici L.** - Le moderne applicazioni radio sulle navi da pesca. – Boll. Pesca Piscicult. Idrobiol., XII, 2, 113-117. Roma (1936). **b - 1750**

L'impiego del radiotelefono, del radiogoniometro e del l'ecometro Marconi e i vantaggi arrecati nella pratica da tali apparati.

**Forssell F.** - Fiskemotorbåten, dess utrustning och manövrering. (In Sved.). – Fiskeritidskr. f. Finl., XLIII, 12, 196-199. Helsinki (1936). **b - 1751**

Indicazioni generali per la costruzione, attrezzatura e manovra delle barche da pesca a motore.

**The Spare Hand** - Proper Equipment Saves Money. – 1 fig., Canad. Fisherm., XXIII, 10, 17-18. Gardenvale, Que. (1936). **b - 1752**

Some hints to repairing defects of the engines.

**The Spare Hand** - Boats, Engines and Gear. Engines for Fishing Craft. – Canad. Fisherm., XXIII, 12, 12-13. Gardenvale, Que. (1936). **b - 1753**

Description of some new types of engines.

**An.** - Die Maschinenanlage des Hochseekutters « Zukunft . ». – 5 Abb., Dtsch. Fisch.-Rundschau, 122-125. Bremerhaven (1936). **b - 1754**

Technische Einzelheiten und Beschreibung der Motoranlagen des Hochseekutters « Zukunft ». (S. über den Bau des Kutters: Dtsch. Fisch.-Rundschau, 4, 69-72, 1936).

**An.** - Vom Segellogger zum Dampflogger. – Fischmarkt, IV, 8, 218-219. Cuxhaven (1936). **b - 1755**

(Aus « Blatt der Ostfriesen », Emden). Schilderung des Ueberganges vom Segel- zum Dampflogger und der Bedeutung von Emden in den Loggerbauten Deutschlands.

**An.** - Radio's Place in the Fisheries. – 1 fig., Fish. Gaz., LIII, 12, 16. New York (1936). **b - 1756**

Radio equipped vessels now essential to industry as boats fish distant banks.

**An.** - Boat Building Gets Under Way in Full Speed for 1936. – 1 fig., Fish & Oyst. Rep., XVII, 2. Tampa, Fla. (1936). **b - 1757**

Description of the last fishing boats built along the North Florida Coast in view to prepare the fleet to the 1936 spring fishing season.

**An.** - What the Fishing Industry Will Be Using in 1936. – 6 figs., Fish & Oyst. Rep., XVII, 2, 5, 9, 12-13, 16. Tampa, Fla. (1936). **b - 1758**

Brief description of some new engine designs of interest for the fishing industry, exhibited at the Thirty-First Annual Motor Boat Show at the Great Central Palace in New York, January 1936.

# LOCA AD PISCANDUM

## *Fundi et loca piscosa eorumque inventio – Variatio Piscium turmarum.*

**Beaugé L.** - La Grande pêche: Islande, Terreneuve, Groenland. – Mém. Off. Pêches Marit., Man. Pêches Marit. franç. (sér. spéc.), 11, 3, 48-67. Paris (1936). **b - 1759**

La pêche française en Islande et les espèces des poissons rapportés: Gadidés, Clupéidés, Pleuronectes et autres espèces comestibles; principalement recherchés sont la Morue et l'Eglefin. Conditions hydrologiques et influence de la transgression chaude des eaux sur la pêche. Les bancs de pêche de Terre-Neuve et de Nouvelle-Ecosse et la pêche à la Morue. La pêche au Groenland et les bancs « Fiskaerness », « Fylla », « Lille Hellefiske » et « Store Hellefiske ».

**Behning A. L.** - Die Materialien zu einer Fischereikarte des Aralsees. (In Russ.). – 12 Abb., Rep. Aral-Sea Div. Inst. Mar. Fish., IV, 139-195. Aralsk (1935). **b - 1760**

Die zu Grunde der Untersuchungen liegenden Expeditionen und Publikationen. Tiefenverhältnisse. Temperatur des Wassers; vertikale Verteilung von t°, Cl ‰, $O_2$ cm³, $O_2$ %; Salzgehalt; Säuregehalt; Bodenverhältnisse; Plankton (Verzeichnis der Arten, horizontale und vertikale Verteilung, jahreszeitliche Veränderungen des Planktonbestands) Rolle des Planktons. Benthos; Bibl.

**Belloc G.** - Le plateau continental atlantique de l'Écosse au Sénégal. – Mém. Off. Pêches Marit., Man. Pêches Marit. franç. (sér. spéc.), 11, 3, 26-44. Paris (1936). **b - 1761**

Les pêcheries au large des côtes de France, d'Espagne, du Portugal et de la Côte occidentale d'Afrique (Sénégal, Mauritanie, Rio de Oro, Maroc) et les chalutiers français qui fréquentent ces lieux de pêche. Les bancs de pêche, les fonds et les produits de la pêche.

**Krämer H. I.** - Die pommersche Küstenfischerei. Ein Beitrag zur wirtschaftlichen Lage der Ostseefischer. – Dtsch. Fischwirt., III, 29, 457-459. Berlin (1936). **b - 1762**

Heutiger Stand dieser Fischerei nach der Staatsunterstützung. Vorteile und Nachteile der Motorkutter. Fahrzeuge und Fanggeräte. Fischsorten. Gesamtfang. Die Gefahr einer uneingeschränkten Schleppnetzfischerei.

**Le Gall J.** - Les fonds de pêche de la Mer du Nord et de la Manche. – Mem. Off. Pêches Marit., Man. Pêches Marit. franç., 11, 3, 17-26. Paris (1936). **b - 1763**

La Mer du Nord a toujours été beaucoup pêchée et elle fournit la moitié de la consommation des pays du Nord-Europe. Indication des fonds et des bancs « Dogger », « Long Forties », « Turbot Bank », « Great and Little Fisher Bank », « Jutland Bank », « Viking Bank », « Hague » ,« La Chapelle », « La Fosse centrale de la Manche ». Hydrologie; La faune ichthyologique et sa répartition: espèces pélagiques et poissons de fond.

**Lundbeck J.** - Die Deutsche Fischerei im Barentsmeer, bei der Bäreninsel und an der norweg. Küste in der Fangzeit 1935/36. II. – 4 Abb., Dtsch. Fisch.-Rundschau, 21, 486-488. Bremerhaven (1936). **b - 1764**

Vergleich der Erträge. Verjüngung der Fischbestände. Fangvoraussagen. Kaltwasser in der östl. Barents-see. Die norweg. Küste.

**Maslov N. A.** - Kratki obzor yslovni ljetnevo i osennevo promysla v judznoj ciasti Barentsova Morja i na Medvjedzinskoj banke. (In russo). – Za rybn. Ind. Sev., 9, 22-24. Murmansk (1935). **b - 1765**

Breve rivista delle condizioni dell'industria peschereccia nella parte meridionale del Mar di Barents e sui banchi di pesca dell'Isola degli Orsi.

**Pilwat H.** - Die Fischersiedlungen der ostpreussischen Küste: I. Neukuhren und seine Nachbarschaften. II. Gross- und Klein-Kuhren. – 1 Karte, Tab., Dtsch. Fischwirt., III, 27, 427-431; 39, 620-622. Berlin (1936). **b - 1766**

1. Ergänzung des in 1928 (Mitt. dtsch. Seef. Ver., XLIV, 1 u. 2) von J. Lundbeck abgegebenen Berichtes über die Neukuhrener Fischerei. Der Bezirk Neukuhren und die dazu gehörenden Fischer. Boote. Fanggeräte und Methoden, Fanggründe (Karte). 2. Lage. Die Fischerbevölkerung. Boote und Methoden. Administration.

**Russo A.** - Concentramento delle acciughe e pesca dei Clupeidi nel golfo di Catania nel 1935-1936 in confronto agli anni decorsi dal 1912 al 1934-35. – Boll. Pesca, Piscicolt. Idrobiol., XII, 3, 189-216. Roma (1936). **b - 1767**

L'A. riferisce su due zone di concentramento di acciughe con caratteri diversi e riporta i dati riassuntivi sul prodotto della pesca luminosa ricavati dai dati giornalieri raccolti nel 1912, nel 1933-34, 1934-35 e 1935-36.

**Schnakenbeck W.** - Die Verwendung des Echolots zum Aufsuchen von Fischschwärmen. – 2 Abb., Fischmarkt, IV, 5, 130-132. Cuxhaven (1936). **b - 1768**

Kurzer Bericht über Versuche in Norwegen und Erprobungen in der Nordsee von englischer Seite, sowie über Vorversuche im Laboratorium und praktische in Deutschland ausgeführte Versuche.

**Thompson H.** - The Relative Productivity of Fishing Grounds. – Rep. Newfoundl. Fish. Res. Lab. 1935, Div. Fish. Res. Dpt. Natur. Resources, Newfoundland, II, 5, 32-33. Cardiff (1936). **b - 1769**

Conclusions drawn after a five years' survey of the Newfoundland fishing grounds, comparison between the yield they give and that currently given by other fishing areas.

**O. S.** - Die Notwendigkeit zuverlässiger Fischereikarten. Der Deutsche Nautische Verein befürwortet die Wünsche der Hochseefischerei. – Dtsch. Fischwirt., III, 51, 856-857. Berlin (1936). **b - 1770**

Kritik der jetzigen Fischereikarte der Nordsee D 112, Notwendigkeit neuer Karten für die Fischgründe der isländischen Küsten, Nordnorwegens, der Bäreninsel und der Barentsee.

**T. Pd.** - Echo-Lot, eine wertvolle Einrichtung für die Fischerei. – 3 Abb., Dtsch. Fisch.-Rundschau, 3, 49-51. Bremerhaven (1936). **b - 1771**

Beschreibung des von der Firma « Deutsche Betriebsgesellschaft für drahtlose Telegraphie » (Debeg) hergestellten Radiolots: seine Arbeitsweise und seine Bedeutung für die Hochsee-Fischerei für das Aufsuchen von Fischbänken auf den Weltemeergründen.

**T. Pd.** - Ultraschallwellen im Dienste der Hochseefischerei. – Dtsch. Fischwirt., III, 4, 52-53. Berlin (1936). **b - 1772**

Nach einigen einleitenden Bemerkungen über den Gebrauch von Ultraschallwellen zur genauen Bestimmung der Entfernung des Schiffskiels vom Meeresboden berichtet Vf. über das von der Deutschen Betriebsgesellschaft für drahtlose Telegraphie m. b. H. (Debeg) entwickelte Radiolot, das auch bei den Fischereiflotten erprobt worden ist und es zunächst möglich macht festzustellen, ob Fischschwärme vorhanden sind oder nicht.

**An.** - Sound Waves Now Used to Locate Fish. – Fish & Oyst. Rep., XVII, 4, 5. Tampa. Fla. (1936). **b - 1773**

Brief information concerning the fact that sound waves are being used in Germany to locate schools of fish by means of a little device called « ultra sound wave echolot ».

**An.** - La pêche dans les mers Arctiques. (En russe). – Khoz. Sev., 12, 49-50. Arkhangheljsk (1935). **b - 1774**

## *Tabulae et statisticae ad fundos piscosos pertinentes.*

**Altnöder K.** - Die Ostseefischerei im Jahre 1935. Die Fangerträge der Hauptfischarten gestiegen. – Dtsch. Fischwirt., III, 41, 650-651. Berlin (1936). **b - 1775**

Die Verteilung des Gesamtfanges auf die verschiedenen Gebiete der Ostsee. Anteil der wichtigsten Fische. Zahl der Fahrzeuge und beschäftigten Leute.

**Eichelbaum E.** - Erhöhter Einsatz der deutschen Fischwirtschaft. Statistik für 1935 beweist die Verbreiterung der Fischversorgung bei steigendem Anteil der Eigenproduktion. – Tab., Dtsch. Fischwirt., III, 15, 225-229. Berlin (1936). **b - 1776**

Statistische Angaben über den Gesamtfang der deutschen Seefischerei, Wert der Einfuhr und Verbrauch an Seefischen 1913, 1928-29, 1932-1935; deutsche Salzheringsproduktion 1934 und 1935; Ergebnisse der deutschen Dampfhochseefischerei 1934 und 1935; Heringstreibnetzfischerei; Kutterhochseefischerei; Küstenfischerei.

**Lundbeck J.** - Biologisch- statistische Untersuchungen über die deutsche Hochseefischerei. I. Die Zusammensetzung der Anlandungen. – 4 Abb., 2 Beil., Tab., Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VIII, 2, 37-128. Stuttgart (1936). **b - 1777**

Allgemeiner Teil: Die Behandlung der Fänge. Die Statistik. Marktauslese und Marktsortierung. Die Marktmessungen. Die Verbindung der Marktmessungen mit der Statistik. Die einzelnen Fischarten (25 Arten).

**Maurice H. G.** - Sea Fisheries Statistic Tables 1935. – 28 tabl., H. M. Stat. Off., Min. Agric. & Fish., 53 pp. London (1936). **b - 1778**

Statistical tables relating to British sea fisheries for the year 1935. Fish landed - year 1935 only; Fish landed - each year, usually 1913 and 1926-1935. Fishermen and fishing vessels. Imports and exports (United Kingdom).

**Nellemose W.** - A Review of Fishery Statistics in Relation to Wholesale-Index. – 31 figs., 30 tables, Cons. Expl. Mer, Rapp. & Pr.-Verb., XCVIII, 72 pp. Copenhague (1936). **b - 1779**

Attempt to examine the possibility of employing the wholesale-index in compiling records of values for international comparison, in order to eliminate the influence upon the data obtained by the fluctuation in currency since 1913, the departure of certain currencies from the gold standard since 1935, and the difficulties thereby created in comparing values of the fisheries when converted into shillings from one country to another and from year to year.

**Zander** - Die deutsche Fischwirtschaft im Spiegel der letzten Betriebszählung. Nun auch Statistik des Fisch-Einzelhandels. – 2 Tab., Dtsch. Fischwirt., III, 18, 277-280. Berlin (1936). **b - 1780**

Gesamtzahl der Betriebe und der Beschäftigten. Die Dampfhochseefischerei und grosse Heringsfischerei. Küstenfischerei, Haffischerei und kleine Hochseefischerei: ihre Betriebe nach der gewerblichen Betriebszählung vom 16. 6. 1933. Die Fischindustrie. Der Einzelhandel mit Fischen.

**Conseil Permanent International pour l'Exploration de la Mer** - Bulletin Statistique des Pêches Maritimes des Pays du Nord et de l'Ouest de l'Europe. – 47 pp., nombr. tabl., fig., XXIV (1934). Andr. Fred. Høst & Fils. Copenhague (1936). **b - 1781**

Charts of statistical areas. Part I: A brief summary of statistical tables concerning fish landed, value, total catch. North Sea Fisheries: landings, shares of different countries, total quantities of different species of fish, yield of different fishing methods etc. « Small Fish » in the North Sea catch: percentage quantity. The fisheries of the Skagerak and Kattegat: total quantities of fish caught. The Herring fishery: monthly landings. Part II. General tables concerning total value. Shellfish 1934. II. Special tables: Value and quantity of the most important fishes, Number, type and tonnage of fishing vessels, fish landed in England, Scotland and Holland in 1934. III. Monthly Tables: quantities landed. Names of fishes.

**Det Norske Hvalråd** - International Whaling Statistics. VII. – Norsk. Hvalråd Statist. Publ. Oslo (1936). b - 1782

**Fishery Board for Scotland** - Sea Fisheries Statistical Tables, 1935. – 30 tabls., H. M. Stat. Off. Fish. Scotl., 2-63. Edinburgh (1936). b - 1783

Statistical tables relating to sea fisheries of Scotland for the year 1935 and concerning: means of capture, maximum activity in herring fishing, personnel, fish landed, means of capture and fish landed, treatment of catch, cured fish branded, fish exported. Summary tables, 1913 and 1927-35.

**Institut für Seefischerei Wesermünde** - Die Erträge der Hochseefischerei, 1936. – Tab., Dtsch. Fisch. Rundschau, 4, 79-80; 6, 126; 8, 178-174; 10, 228-229; 14, 220; 17, 393. Bremerhaven (1936). (—) Dtsch. Fischwirt., III, 8, 124; 16, 251-252; 20, 317; 24, 386; 29, 465; 34, 547; 49, 831-832. Berlin (1936). b - 1784

Statistische Angaben über die Fangergebnisse in Island, in der Barentsee, an der norwegischen Küste und in der Nordsee für die Monate Januar-Juli 1936. S. auch ibid. 24, 569 und 26, 612 « Die Lage auf den Fangplätzen der Hochseefischerei, Oktober und November 1936 ».

**Ministère de la marine Marchande. Direction pêches maritimes** - Statistique des Pêches maritimes. Année 1934. – Graph., tables. Min. Marine March., Docum. 6006, 176 pp., Impr. Nat. Paris (1936). b - 1785

I. Renseignements généraux. II. Armement. III. Personnel. IV. Production: Production de la grande pêche, de la pêche en bateau, de la pêche à pied et indication du nombre des pêcheurs y prenant part. Ostréiculture, mytiliculture et autres coquillages, réservoirs à poissons et à crustacés. V. Industries connexes.

**Ministère des Travaux publics. Direction pêches maritimes** - Statistiques des Pêches Maritimes Année 1935. – Plus. tab., Min. Trav. Publ., Docum. 6006, 178 pp. Impr. Nat. Paris (1936). b - 1786

Rapport au Ministre de la Marine Marchande avec des tableaux comparatifs des résultats de la pêche et de l'ostréiculture. Nombre des bateaux armés en pêche et renseignement sur leur tonnage. Personnel pratiquant la pêche en bateau et à pied. Production de la grande pêche à Terre-Neuve, Groenland et Islande; production générale de la pêche en bateau et à pied; l'ostréiculture, la mytiliculture et réservoirs à poissons et à crustacés. Industries connexes à la pêche.

**Office Scientifique et Technique des Pêches maritimes** - Statistique des Régions de pêche. Année 1935 (1er et 2ème Semestre). – 3 cartes, plus. tab., Rev. Trav. Off. Pêches Marit., IX, 1, 33, 118-127; 3, 35, 323-333. Paris (1936). b - 1787

Nouvelle répartition des régions de pêche adoptée par le Cons. Int. des Pêcheries de l'Amérique du Nord pour la côte orientale du continent américain. Désignation des produits pêchés (*Gadidae, Pleuronectidae, Scomberidae, Clupeidae* et Crustacées divers) et des régions de pêche. Distribution des lieux de pêche selon la Convention Internationale.

**Dr. M.** - See-und Küstenfischerei in Preussen und Mecklenburg im 3. u. 4. Vierteljahr 1935. – Dtsch. Fischwirt., II, 52, 956-958; III, 6, 85-87. Berlin (1935 & 1936). b - 1788

Kurze Schilderung, von einigen statistischen Angaben ergänzt, der See- und Küstenfischerei im Nordseegebiet (Altona), im Ostseegebiet (Kiel, Stralsund, Swinemünde, Kolberg, Pillau, Labjau), und in Mecklenburg.

**Dr. M.** - See- und Küstenfischerei in Preussen und Mecklenburg im 1. u. 2. Vierteljahr 1936. – Dtsch. Fischwirt., III, 22, 348-351; 34, 540-542. Berlin (1936). b - 1789

Bericht über die Ergebnisse der verschiedenen Zweige von Fischerei im: Nordseegebiet, Ostseegebiet, Mecklenburg.

**"Quibbon"** - More Cod and Haddocks, less Hake and Plaice. – Fish Trad. Gaz., LIII, 2752, 19. London (1936). b - 1790

Features of the 1935 yield on the basis of official statements of the « Monthly Statistical Return of Sea-Fisheries for England and Wales ».

**An.** - Canadian Lobster and Salmon Catches Show Marked Rise. – 1 photo, Fish. Gaz., III, 4, 9. New York (1935). b - 1791

Statistical statements, showing the important increase in volume and in value of the sea fisheries of Canada in 1934.

**An.** - Die Seefischerei Nordwesteuropas im Jahre 1933. – 5 Tab., Fischmarkt, IV, 2, 51-52. Cuxhaven (1936). b - 1792

Zusammenfassende Wiedergabe der in der regelmässig durch das Büro der Internationalen Meeresforschung herausgegebenen Statistik enthaltenen Angaben über die Gesamterträge, die Fangergebnisse, die Hauptnutzfische, die Erträge einzelner Fischereigebiete, und die Erträge der Schleppnetzfischerei in den Gewässern Nordwesteuropas.

**An.** - Internationale Walfangstatistik für die Fangzeit 1934-35 und Sommer 1935. – 4 Tab., Fischmarkt, IV, 7, 173-174. Cuxhaven (1936). b - 1793

Statistische Angaben den « International Whaling Statistics », VII, Oslo 1936, entnommen.

**An.** - Landings and Exports of Fish in 1935. Increased Values in Scotland but not in England and Wales. – Fish Trad. Gaz., LIII, 2748, 16. London (1936). b - 1794

Extract from the statistics of the Ministry of Agriculture and Fisheries.

**An.** - Fishing in European Waters. – Fish Trad. Gaz., LIII, 2750, 21. London (1936). b - 1795

Some statistic information taken from the « Bulletin statistique » of the Int. Council for the Exploration of the Sea in which is observed the striking rise in the quantity of herring landed by Germany.

### *Piscatus in aquis finitimis.*

**Poulsen E. M.** - The Herring Stocks of the Transition Area. – 2 maps, Cons. Expl. Mer, Rapp. & Pr.- Verb., C, 2ème partie, 20-22. Copenhague (1936). b - 1796

Survey of the principal races and their spawning-places. Variations of the vertebrae.

**F. W. W.** - Japanese Invasion of Pacific Coast Fisheries. – Canad. Fisherm., XXIII, 12, 7-8. Gardenvale, Que. (1936). b - 1797

In view of the increasing Japanese invasion in Canadian and American waters, A. claims for a definite proprietary right to any species of fish for Canada and U. S. A. See also this number pp. 31-32.

**Pl.** - Darf ein Fischerfahrzeug, das fischend in fremden Hoheitsgewässern angetroffen wird, auf die hohe See hin verfolgt werden ? – Fischmarkt, IV, 8, 214-215. Cuxhaven (1936). **b - 1798**

Der französichen Zeitschrift « La Pêche Maritime » entnommene Besprechung dieser Frage, an Hand zweier entgegengesetzter Entscheidungen.

**An.** - Die neuen Ansprüche Norwegens auf die Fischereirechte vor der norwegischen Küste. – 1 Karte, Fischmarkt, III, 9, 230-231. Cuxhaven (1935). **b - 1799**

Kurzer Bericht über die von Norwegen in der letzten Zeit erhobenen Ansprüche betreffs der Rechte zur Ausübung der Fischerei in den Gewässern vor den norwegischen Küsten, welche starke Erregung in den Fischereikreisen Deutschlands und Englands gemacht haben.

**An.** - Schärfere Massnahmen Islands bei Verletzung der Hoheitsgrenze. – Fischmarkt, IV, 7, 174. Cuxhaven (1936). **b - 1800**

Ueber den Entschluss fremde Fischereifahrzeuge, die in isländischen Hoheitsgewässern fischen und der Aufforderung aufzuhören nicht nachkommen, zu beschiessen.

**An.** - Problems of Aliens in Fisheries receives wide Attention. – Pacif. Fisherm., XXXIII, 5, 27. Seattle, Wash. (1935). **b - 1801**

Discussion at the Congress of U. S. A. Aliens may land fish. Excise tax proposed.

# FRUCTUS PISCATIONIS

## Species edules et commerciales: piscatio et industria.

### *Selachii.*

**Thiel H.** - Haifische und Haifischprodukte. – 7 Abb., Tab., Fischmarkt, n. F., IV, 10, 257-263; 11, 285-291; 12, 313-319. Cuxhaven (1936), **b - 1802**

I. Methoden des Haifischfanges. II. Biologische Eigenarten der Haie. III. Die wirtschaftlich wichtigen Haie. IV. Aus der Statistik des Haifischfanges. V. Haifischprodukte: *a*) Haifischhaut und- leder; *b*) Haifischflossen; *c*) Haifischfleisch; *d*) Haifischmehl; *e*) Haifischleberöl (Tran.)

**An.** - Shark Industry Promises to be Thriving Florida Industry. – Fish & Oyst. Rep., XVII, 4, 8-9. Tampa, Fla. (1936). **b - 1803**

Oil and skin of shark are being successfully marketed.

**An.** - Establishing of Shark Industry Proposed as Advertising of Florida Fishing Industry. – Fish & Oyst. Rep., XVII, 6, 7 & 14. Tampa, Fla. (1936). **b - 1804**

On the establishment of a Mobile State-Operated Shark factory as a means of removing one of the major obstacles of the industry in Florida. The report of the Survey on this account urges persistent fishing as a means of driving sharks from any locality and advocates serious considerations to be given to the feasibility of establishing the above mentioned factory as a conservation measure.

### *Anguillae.*

**Järvi T. H.** - Om Ålfisket vid Kuusankoski. (Testo svedese). – 1 carta, 4 fig., Fiskeritidskr. f. Finl., XLIII, 10, 148-154. Helsinki (1936). **b - 1805**

L'A. descrive un metodo per catturare le anguille migranti verso il mare, adoperato a Kuusankoski, Finlandia.

**Ladiges W.** - Untersuchungen über den Aalbestand im hamburgischen Hafengebiet. – 1 Abb., 7 Tab., Ztschr. f. Fisch., XXXIV, 1, 23-34. Neudamm & Berlin (1936). **b - 1806**

Aufenthaltsorte der Aale, Grössen-Zusammensetzung, Nahrungsverhältnisse (Untersuchung des Mageninhalts, Tab. über Nahrungstiere), ökologische Verhältnisse, allgemeine Lebensverhältnisse.

**Schiemenz P.** - Untersuchungen über den Aal. – Ztschr. f. Fisch., XXXIII, 615-680. Neudamm & Berlin (1935). **b - 1807**

Versuche bei Seddin in der Mark. Die äussere Erscheinung des Aales. Die Geschlechtsverhältnisse. Bassin-Aale. Satz-Aale. Brut. Besatzstärke. Ernährung. Sollen Aale in Teiche eingesetzt werden ? Winterschlaf und Aalfang im Winter. Auswanderung. Abwanderung. Bibl.

### *Pleuronectidae.*

**Bedford R. H.** - The Catching and Marketing of Halibut. Extreme Care ensures a Quality Fish. (In Engl. & French). – 5 figs., Canad. Fisherm., XXIII, 11, 39-45. Gardenvale, Que. (1936). **b - 1808**

Some remarks on the change of shape from young to adult. Account of the catch and unloading of one of the Canadian halibut schooners. Sterilizing and refrigeration.

**Bückmann A.** - Scholle (*Pleuronectes platessa*). Die relative Stärke der einzelnen Jahrgänge in verschiedenen Meeresteilen. – Diagr., Cons. Expl. Mer, Rapp. & Pr.-Verb., CI, 3ème partie, 7, 1-12. Copenhague (1936). **b - 1809**

Uebersichtliche und vergleichbare Zusammenstellung der seit 1905 veröffentlichten Arbeiten mit ergänzenden Bemerkungen. Die Aufschlüsse über die Stärke der Jahrgänge 1914-1935 in den isländischen Meeresteilen, der nördl. und südl. Nordsee, Skagerak, Kattegatt und Ostsee sind in Tabellen graphisch wiedergegeben.

**Heinemann E.** - Flunderfischerei an der ostpreussischen Küste. – Dtsch. Fischwirt., III, 18, 275. Berlin (1936). **b - 1810**

Zeit und Ort. Geräte. Boote. Räuchern.

**Jespersen P.** - Investigations on the Stock of Halibut in the North Atlantic. – 13 figs., 15 tabl., 4 tables o. t., Cons. Expl. Mer, Rapp. & Pr.–Verb., XCIX, 1933-35, 2, 1-27. Copenhague (1936). **b - 1811**

Investigations on age, growth, size and age composition in the waters round Faroes, Iceland and West Greenland.

**Jespersen P.** - Fluctuations in Year-Classes of Halibut. – Cons. Expl. Mer, Rapp. & Pr.–Verb., CI, 3ème partie, 6, 1 p. Copenhague (1936). **b - 1812**

Short information on the questionnaire sent in the subject of which most replies were negative. Sufficient material only in Icelandic waters. Reference to other works.

**Roberts W. A.** - The History and Progress of the Halibut Fisheries. – 1 fig., Fish. Gaz., LIII, 4, 12 & 25. New York (1936). **b - 1813**

Description of the species *Hippoglossus hippoglossus* found extensively in the North Atlantic and North Pacific Oceans giving rise to one of the most important fisheries. Appearance and life-habits, properties of its flesh, white and gray halibut; its spawning periods; the depletion of the stock; type of bait used. Pacific halibut fisheries.

**Schmidt U.** - Untersuchungen über die Schollenlandungen der deutschen Hochseekutter aus der Nordsee im Jahre 1935. – 1 Abb., 7 Tab., Fischmarkt, IV, 4, 88-89. Cuxhaven (1936). **b - 1814**

Zusammensetzung der Gesamtanlandungen. Die örtliche Verteilung der Fischerei. Die Fangaussichten für 1936.

## *Gadidae.*

**Hickling C. F.** - Fluctuations in Year-Classes of Hake (*Merluccius merluccius*, Linn.). – Cons. Expl. Mer, Rapp. & Pr.–Verb., CI, 3ème partie, 8, 1 p. Copenhague (1936). **b - 1815**

Short note on the « small hake » in the regions south and west of Ireland during 1921-1925.

**Sund O.** - The Fluctuations in the European Stocks of Cod. With a Note on the Fluctuations in the North-Western Area by Dr. Å. V. Tåning, Copenhagen. – 7 figs., tabl., Cons. Expl. Mer, Rapp. & Pr.–Verb., CI, 3ème partie, 1, 1-21. Copenhague (1936). **b - 1816**

The results of the calculations are expressed graphically in several figures concentrated in a simplified view of the fluctuations of the brood in the areas of Greenland and Iceland, Barents Sea, Finnmark Coast, Lofoten, Faroe, Skagerak, Danish waters, North Sea and Midd. Baltic for 1897-1935. Appendix by Å. V. Taning concerning Greenland, Iceland and Danish Waters. Bibl.

**Thompson H.** - Haddock Investigations. – Rep. Newfoundl. Fish. Res. Lab. 1935, Div. Fish. Res., Dpt. Natur. Resources, Newfoundland, II, 5, 29-32. Cardiff (1936). **b - 1817**

1. Quantities of Haddock available. 2. Sizes and age-composition of the shoals.

**Thompson H.** - Sizes of Cod and Distribution of the Age-Classes in 1935. Racial Groups of Cod. – 1 Map, Rep. Newfoundl. Fish. Res. Lab. 1935, Div. Fish. Res., Dpt. Natur. Resources, Newfoundland, II, 5, 36-40. Cardiff (1936). **b - 1818**

Two principal factors for good supply to the fishery: suitable water conditions and the satisfactory existence of year-classes of cod. Comparative proportions of various age-classes for Bay Bulls, Grand Bank and Fortune during 1922-1932. Some difference in growth noticed in the direction from south-west to north-east. Other similarities of the average recorded. Vertebral counts on Cod.

## *Clupeidae.*

**Altnöder K.** - Die deutsche Heringsfischerei in der Ostsee. – Dtsch. Fischwirt., III, 25, 395-397. Berlin (1936). **b - 1819**

Der Hering als Nutzfisch. Fangmenge und Wert. Gesamtproduktion Deutschlands. Hauptlandegebiete und Fangzeit. Verschiedene Heringssorten. Fanggeräte.

**Andersson K. A.** - The Herring Groups in the Skagerak, the Kattegat and the Baltic. – Cons. Expl. Mer, Rapp. & Pr.–Verb., C, 2ème partie, II, 11. Copenhague (1936). **b - 1820**

Report on the stock for the Swedish fishery. Characterization of autumn spawners and spring spawners.

**Chambré Ch.** - Shad Fishing in New Brunswick. – 2 figs., Canad. Fisherm., XXIII, 4, 14-15. Gardenvale, Que (1936). **b - 1821**

The morphological and ecological characteristics of *Alosa sapidissima*; its life history; migrations, gears used in New Brunswick, price fluctuations.

**Dierks** - Steigende deutsche Salzheringproduktion. – 2 Tab., Dtsch. Fischwirt., II, 2, 20. Berlin (1935). **b - 1822**

Statistische Angaben über die Entwicklung der Heringsfangflotte, Steigung der Erzeugung deutscher Salzhering und Rückgang der Einfuhr ausländischer Heringe.

**Erdmann W.** - Die deutsche grosse Herings-Fischerei in den Jahren 1931-1934. – 14 Karten, 2 Anh., Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VIII, 1, 1-23. Stuttgart (1936). **b - 1823**

Die Entwicklung der deutschen Heringsflotte für die grosse Fischerei und ihre Fangergebnisse. Monatskarten der Fangerträge für 1931-1934.

**Erdmann W.** - Die Deutsche Grosse Heringsfischerei im Jahre 1935. – 1 Abb., 5 Tab. a. T., 9 Kart., Ber. Dtsch. Wiss. Komm. Meeresf., N. F., VIII, 2, 25-36. Stuttgart (1936). **b - 1824**

Die Flotte und die Fangergebnisse. Die Monatskarten 1935. Die Jahreskarten 1934-1935.

**Furnestin J.** - Observations diverses sur les concentrations de Harengs du « Fladen » (Mer du Nord). – 5 fig., Rev. Trav. Off. Pêches Marit., IX, 1, 33, 47-55. Paris (1936). **b - 1825**

Répartition quant à l'âge des Harengs pendant les mois de juillet, août, septembre 1929-1935. Polygones des variations du nombre des vertèbres et la moyenne vertébrale. Age: composition du stock qui est constitué par au moins deux populations distinctes: une population de hareng de printemps, se rapportant au type Atlantoscandinave et une population de hareng d'automne rapprochée du type Mer du Nord.

**Le Gall J.** - Hareng. Sur l'abondance relative des « Classes annuelles » dans les différentes concentrations de Harengs de l'Atlantique Nord-Est. – 1 graph., 1 table, Cons. Expl. Mer, Rapp. & Pr.–Verb., CI, 3ème partie, 3, 1-11. Copenhague (1936). **b - 1826**

Remarques générales sur les méthodes et leur valeur. Résultats: Norvège, Sud de la Mer du Nord et Manche Orientale, Manche Occidentale, Nord de l'Irlande, Mer d'Irlande. Côtes d'Ecosse; harengs dont la ponte a lieu en automne et en printemps. Interprétation des résultats. Conclusion.

**Le Gall J.** - Statistiques biologiques et considérations sur les populations de Harengs de la Manche Orientale et du Sud de la Mer du Nord. – 2 fig., Rev. Trav. Off. Pêches Marit., IX, 1, 33, 37-46. Paris (1936). **b - 1827**

Les déplacements de la pêcherie harenguière pendant la saison d'hiver 1935-1936. Taille, âge et moyenne vertébrale des échantillons de hareng prélevés sur les différentes pêcheries. Les harengs de 6 ans, de 4 ans et de 3 ans ont constitué plus de 80 p. 100 de la population présente; l'étude de la moyenne vertébrale montre une forte pénétration des harengs du type de la Mer du Nord.

**Marquard O.** - Die Ostpommersche Sprottfischerei. – Dtsch. Fischwirt., III, 33, 523-526. Berlin (1936). **b - 1828**

Im Anbetracht der ausserordentlichen Entwicklung dieser Fischerei während der letzten 6-7 Jahre wird hier eine eingehende Darstellung derselben gegeben. Verschiedene Zubereitungsmethoden. Geräte. Einfluss der erhöhten Sprottfischerei auf den Fang von Schollen und Flundern in der mittleren Ostsee. Kontingentierung der Fänge.

**Russo A.** - Zone di concentramento, migrazioni e pesca dell'Acciuga *Engraulis encrasicholus* L. con sorgenti luminose nel golfo di Catania. – 6 fig., Atti Acc. Goenia Sc. Natur., Ser. 6, I, 1-16, Catania (1936). **b - 1829**

Zone di concentramento. Varietà costiere di Acciughe. Migrazioni. Prodotto della pesca delle Acciughe con sorgenti luminose in relazione ai fondali. Reti adoperate per la pesca luminosa a Catania, loro adattamento per la cattura dei Clupeidi. Dati statistici. Tabelle.

**Russo A.** - Prodotto della pesca dei Clupeidi (acciuga, sardina) nel golfo di Catania nel 1934-1935. Dati riassuntivi e dati giornalieri. – num. tab., Boll. Pesca, Piscicolt. & Idrobiol., XII, 1, 5-28. Roma (1936). **b - 1830**

In numerose tabelle vengono riportati i dati relativi alla pesca dei clupeidi fatta nel Golfo di Catania con qualunque attrezzo di pesca, di giorno e di notte. Il prodotto è in aumento rispetto all'anno precedente per il contributo apportato dalla pesca luminosa fatta con la pulica e la menaida negli alti fondali del golfo.

**Schmidt U.** - Ueber den Heringsfang bei Helgoland. – 2 Phot., 3 Tab., Fischmarkt, IV, 2, 36-41. Cuxhaven (1936). **b - 1831**

Nach einer kurzen Einleitung über die Schwankungen der Heringsfischerei an den deutschen Küsten bespricht Vf. eingehender die ziemlich reiche Heringsfischerei bei Helgoland in 1935-1936. Uebersicht über die seit 1928 angelandeten Küstenheringe und die erzielten Durchschnittspreise, Vergleich zwischen den Längen der bei Helgoland und in der Süderpiep gefangenen Heringe. Über die Herkunft der Heringe.

**Schnakenbeck W.** - Die europäische Heringsfischerei. – 1 Karte, Tab., Fischmarkt, N. F., IV, 9, 229-237. Cuxhaven (1936). **b - 1832**

Geschichtliche Uebersicht der Heringsfischerei seit dem 10. und 11. Jahrhundert: Schwankungen und lokale Verschiebungen. Jetziges Hauptgebiet. Möglichkeit einer künftigen Steigerung der Heringsfischerei und damit zusammenhängende noch unerforschte Faktoren.

**Takayama J. & Sakai M.** - An Investigation of the Present Position of Important Fisheries: III. On the Sardine Fishery. (In Jap., Engl. Rés.). – Journ. Imp. Fish. Exp. Stat., VII, 287-334. Tokyo (1936). **b - 1833**

Results of investigations undertaken by the Imperial Fisheries Experimental Station in collaboration with other similar stations during 1931 showing the increase of this most important branch of fishing industry in Japan; total area and total catch of 1931.

**Wendt R.** - Die deutsche Heringsfischerei mit Treibnetzen im Jahre 1935. – 5 Tab., Fischmarkt, IV, 2, 32-35. Cuxhaven (1936). **b - 1834**

Statistische Angaben über die Flotte der deutschen Loggerfischereien. Qualität der Fänge, ihr Verkauf, das finanzielle Ergebnis der Loggerfischerei und ihre Entwicklung in 1934 und 1935. Statistik der deutschen Logger-Heringsfischerei im Nordseegebiet für 1935. Vergleich zwischen den Fangergebnissen von 1907 bis 1935.

**F.** - Reiche Heringsfänge der Motorkutter. – Fischmarkt, IV, 2, 50. Cuxhaven (1936). **b - 1835**

Kurzer Bericht über die Sprott- und Heringsfischerei zwischen Helgoland und der Düne sowie bei der Süderpiep.

**Hi.** - Auftakt zur Heringssaison 1936. Die deutsche Loggerflotte auf der Ausreise. – Dtsch. Fischwirt., III, 21, 333-334. Berlin (1936). **b - 1836**

Zusammensetzung der Flotte. Kurze historische Uebersicht über die Heringsfischerei seit den vom 10. bis zum 16. Jahrhundert stattgefundenen Schonenmärkten. Geburtsstätte der deutschen Heringsfischerei an der Nordsee. Statistische Uebersicht über die Entwicklung der deutschen Treibnetzheringsfischerei seit dem Jahre 1930.

**S-E.** - Abschliessende Zahlen über die Heringssaison. – Dtsch. Fischwirt., III, 2, 20-21. Berlin (1936). **b - 1837**

Aus den statistischen Angaben über den Verlauf der Heringssaison 1934 kommt hervor, dass sowohl die deutsche Schleppnetzheringsfischerei wie auch die deutsche Treibnetzheringsfischerei in dieser Saison ihre Produktion vorwärts getrieben haben.

**An.** - Kritik an der letzten norwegischen Heringssaison. – 2 Tab., Dtsch. Fisch.– Rundschau, 12, 265-267. Bremerhaven (1936). **b - 1838**

Über die reiche Heringssaison von 1935. Aussichten über den Absatz der Heringe, die Herabsinkung der Preise und die Bedingungen von Angebot und Nachfrage.

**An.** - Hochsaison in Ostsee-Heringen. Der Fangbetrieb ist in vollem Gange. – Dtsch. Fischwirt., III, 14, 210-211. Berlin (1936). **b - 1839**

Die Hauptfanggebiete. Verschiedene Fangmethoden, Entwicklung der Fangtechnik. Verwertung. Schwierigkeiten bei dem Fang.

**An.** - Shad Season in South Carolina to Be Changed. – Fish & Oyst. Rep., XVII, 3, 8 & 13. Tampa, Fla. (1936). **b - 1840**

Measures and laws to be introduced in order to prevent yearly depletion of the shad *Alosa sapidissima* during the spawning season in South Carolina waters.

## *Scomberidae.*

**Coceani R.** - L'industria delle tonnare e il mercato del tonno sott'olio. – Boll. Pesca, Piscicolt. & Idrobiol., XI, 5, 727-732. Roma (1935). **b - 1841**

Problemi attuali concernenti la produzione industriale del tonno in Sicilia e in Sardegna; consumi nazionali e condizioni del mercato di questo importante prodotto della pesca italiana.

**Legendre R.** - La pêche du Germon, son intérêt scientifique. – 11 fig., Rev. Scient., LXXIV, 9, 266-273. Paris (1936). **b - 1842**

Notes historiques sur la pêche de ce poisson qui est connu depuis fort longtemps. Bateaux et équipages de pêche. Méthodes; industrie; pêcheurs. Biologie du germon.

**Priol G. P.** - La pêche du thon blanc ou Germon en Bretagne. – Pêche Marit. Pêche fluv. et Piscicolt., XIX, 249-250. Paris (1936). **b - 1843**

**Ramalho A.** - Abondance relative des classes annuelles de Maquereau. – Cons. Expl. Mer, Rapp. & Pr.-Verb., CI, 3ème partie, 5, 1. Copenhague (1936). **b - 1844**

Impossibilité de préparer un rapport à cause des indications très peux précises et certaines.

**Sirovatski I.** - The Mackerel of the Black Sea and the Development of its Fishery. (In Russ.). – Fish. Ind. U. S. S. R., 10. (?) (1935). **b - 1845**

**Winkler Ch. A.** - Problems of Tuna Industry dealt with by Association. – 1 fig., Pacif. Fisherm., Yearbook 1935, 125. Seattle, Wash. (1935). **b - 1846**

General conditions for 1934. Packers participate actively. Futile conferences held with Japanese. Pack standards are proposed. Mackerel canning is given attention.

**An.** - Maine Tuna Fisheries. – 2 photos, Fish. Gaz., LIII, 3, 7, New York (1936). **b - 1847**

Last development of this fishery illustrated by some statistical statements, craft and methods employed; the trade.

**An.** - We're going swordfishing'. – 1 fig., Fish. Gaz., LIII, 8, 10-11. New York (1936). **b - 1848**

The fishery of *Xiphias gladius* one of the most highly prized fish of the North Atlantic.

## *Salmonidae.*

**Brandtner P.** - Die Neukuhrener Lachsfischerei in den Fangzeiten der letzten Jahre. – 2 graph. Fig., Tab., Dtsch. Fischwirt., III, 47, 791-793. Berlin (1936). **b - 1849**

Gesamtgewicht, Anzahl durchschnittliches Gewicht, Fangtage und Fahrzeuge für die Fangperioden 1931/32 bis 1935/36. Graphische Darstellung des Fanges. Allgemeines Urteil: Ursachen für den schlechten Ausfall der Lachsfischerei 1934/35.

**Chaytor A. H.** - Letters to a Salmon Fisher's Sons. 4th Ed. – xxviii + 316 pp., 8 pls. J. Murray. London (1936). **b - 1850**

**Dahl K. & Sømme J. D.** - Hardangerviddas Ørret og Ørretfiske. (In Norv.) – 185 pp., Norsk Jaeg. - o. Fisk. - Foren. Unders. 1931-1934. Oslo (1936). **b - 1851**

This fishery in olden times and now; causes of depletion.

**Dixon B.** - The Age and Growth of Salmon Caught in the Polish Baltic in the Years 1931-1933. – 2 figs., tables, Journ. Cons. Expl. Mer, IX, 66-78. (Trav. Stat. Marit. Hel). Copenhague (1935). **b - 1852**

Results of examination of salmon caught with driftnets and lines in further analysis of the composition of the stock.

**Foerster R. E.** - Artificial Spawning Methods for Sockeye Salmon. – Biol. Bd. Canada, Bull., L, 1-13. Ottawa (1936). **b - 1853**

Stripping, expression or hand pressure, fertilization, rinsing, steeping, congealing. Results of the experiments.

**Huntsman A. G.** - Report of the Margaree Salmon and Trout Investigations. – Ann. Rep. Biol. Bd. Canada 1935, Appendix V, 47-48. Ottawa (1936). **b - 1854**

Seven different points of the river system have been studied and some conclusions drawn as to the movements, scarcity and repopulation of salmons in connection with tide conditions as well as spawning.

**Sánchez de Piña P. L.** - El Salmón del Pacífico. I, II. – Bol. Pesca y Caza, VIII, 1, 11-12; 2, 16-20. Madrid (1936). **b - 1855**

Variedades del salmon. Hábitat y extension. Peso anual y valor de la pesca. Las especies: coho, chum, humpback, sockeye, chinook; epocas de inmigración; Tentativas para aclimatar al salmon del Pacifico en otras partes del mundo.

**Siedlecki M.** - Fluctuations in the Number of Individuals belonging to different Age-groups in the Catches of European Salmon (*Salmo salar* L.). – 6 diagr., Cons. Expl. Mer, Rapp. & Pr.-Verb., CI, 3ème partie, 9, 7 pp. Copenhague (1936). **b - 1856**

Statistics concerning salmon fishery from seven European countries. Fluctuations of the year-classes according to several investigators for 1928-1933. Conclusions as to the composition of salmon populations of different countries, general character and biological differences.

**Thompson H.** - Salmon Investigations. – Rep. Newfoundl. Fish. Res. Lab. 1935, Div. Fish. Res., Dpt. Natur. Resources, Newfoundland, II, 5, 43-46. Cardiff (1936). **b - 1857**

Preliminary report: rate of regeneration, measures of conservation. Development of industry. Percentage of grilse at the coast and following success of salmon fishery in succeeding year. Tentative predictions. Water conditions. Correlation of runs in the rivers with facts which have been determined for the sea phase of the life of the salmon.

## *Mammalia.*

**Cunningham J. C.** - The Navy's Part in the Fur Seal Industry. – 8 pls., U. S. Nav. Inst. Proc., LXII, 396, 236-240. Annapolis, Md. (1936). **b - 1858**

Approximately 80 per cent of the fur seals of the world are found in the Pribilofs, in the Bering Sea: Catches and biological notes: sexual maturity and mortality.

**Dorofeew S. W. & Arsenev V. A.** - Indicazioni informative sull'industria baleniera nell'Estremo Oriente. (In russo). – Trans. Inst. Fish. & Oceanogr. USSR (VNIRO), III, 49-52. Moscow & Leningrad (1936). **b - 1859**

Tavole statistiche sulla quantità totale dei *Delphinapterus leucas* catturati dalle varie organizzazioni nel 1929-30. Informazioni particolari sui colori, media dei pesi della pelle; rendimento del grasso; rapporti dei pesi fra le varie materie prime, ecc.

**Drukker G. F. & Gakitschko S. I.** - Der Weisswal des Stillen Ozeans als industrieller Rohstoff (In Russ., Dtsch. Rés.). – 23 Abb., zahlr. Tab., Trans. Inst. Fish. & Oceanogr. USSR (VNIRO), III, 53-130. Moscow & Leningrad (1936). **b - 1860**

Bericht über die während 1929-1930 unternommenen chemischen Untersuchungen von Weisswalen aus den Sachalin umgebenden Meeresteilen. Anweisung der angewandten Methoden, Analyse der verschiedenen Körperteile: Haut, Speck, Fleisch, Knochen, Intestina, Flossen, ihre chemische Zusammensetzung. Produkte.

**Freiman C. J.** - Industria caratteristica (*Mammalia marina*) nella parte settentr. del mare di Ochotsk. (In russo). – 2 carte, tav., Trans. Int. Fish. & Oceanogr. USSR (VNIRO), III, 204-212. Moscow & Leningrad (1936). **b - 1861**

Rapporti di ciascuna regione: dati sul rendimento della cattura delle balene, calcoli su gli animali uccisi; parti del corpo, grasso, etc.

**Gakitschko S. I. & Dorofeev S. W.** - Informazioni sull'industria dell'utilizzazione delle pelli di *Delphinapterus leucas*. (In russo). – Trans. Inst. Fish. & Oceanogr. USSR (VNIRO), III, 131-134. Moscow & Leningrad (1936). **b - 1862**

**Gakitschko S. I. & Surchin S. N.** - Die Seerobben der Tatarischen Wasserstrasse und der Amur- Mündung als industrielle Rohstoffstiere. (In Russ., Dtsch. Rés.). – 10 Abb., Tab., Trans. Inst. Fish. & Oceanogr. USSR (VNIRO), III, 238-272. Moscow & Leningrad (1936). **b - 1863**

*Phoca vitulina largha* Pall., *Erignathus barbatus* Fabr., *Phoca hispida* Schr. und *Histriophoca fasciata* Zimm. Chemische Zusammensetzung der einzeinen Körperteile und ihre Verwertung; Wertangaben.

**Golentchenko A.** - Les ressources inutilisées de graisse de l'océan: les dauphins. (En russe). – 4 fig., Za Rybn. Ind. Sev., 3, 22-24. Leningrad (1936). **b - 1864**

**Gottberg G.** - Sälfångsten år 1935. (In Sved.). – 3 tav., Fiskeritidskr. f. Finl., XLIII, 8/9, 133-136. Helsinki (1936). **b - 1865**

Tavole statistiche sulla quantità di balene uccise nel Golfo Botnico e nel Golfo Finnico; metodi di cattura, località.

**Koschkine V. N.** - Reprise de la chasse sur l'Ile Beghitchef. (En russe). – 2 fig., Bull. Arct. Inst., VI, 2, 58-61. Leningrad (1936). **b - 1866**

Reprise de la chasse après une longue interruption; référence spéciale à la chasse aux phoques, aux mesures nécessaires pour conserver leur stock à l'avenir et au rendement de cette chasse dans la région considérée.

**Lynge E.** - Der Walfang. Beiträge zur Weltwirtschaft der Fettstoffe. – Wandl. i. d. Weltwirt., 7. Leipzig (1936). **b - 1867**

**Malm E. N.** - An Essay of Mathematical Determination of the Stock of Dolphins of the Black Sea. (In Russ., Engl. Rés.). – Works Arnoldi Biol. Stat., II, 1, 69-86. Novorossiysk (1936). **b - 1868**

The probable dimensions of the stock of dolphins in the Black Sea may be calculated as the average between the maximal and minimal dimensions of the stock which is suppositively 779.310 specimens. Immigration of Dolphins from neighbouring seas. (From A.).

**Minejev A. I.** - L'industrie du morse sur l'Ile Wrangel. (En russe). – 3 photos, Sovjet. Arkt., 2, 49-52. Leningrad (1935). **b - 1869**

**Schnakenbeck W.** - Der Walfang. – Der Biologe, IV, 10, 311-318. München (1935). **b - 1870**

Anlässlich einer vorgeschlagenen Beteiligung Deutschlands am Walfang macht Vf. hier an Hand statistischer Angaben eine eingehende Untersuchung, ob der Walbestand bedroht ist: Gesamtzahl der gefangenen Wale 1868-1932; Tranerzeugung 1924-1933; verschiedene Arten gefangen; durchschnittliche Grösse der erlegten Wale, Altersbestimmung und Geschlechtsverhältnisse.

**Sergheev M.** - L'industrie baleinière de l'URSS. (En russe). – 4 fig., Vestn. Znan., 8, 603-609. Leningrad (1935). **b - 1871**

**Sivertsen E.** - Det biologiske grunnlag for den arktiske selfangst. (In Norv.). – 7 fig., Naturen, LX, 7/8, 193-210. Bergen (1936). **b - 1872**

Necessità di una conoscenza biologica della foca per salvare lo stock dall'esaurimento per eccessiva caccia. Descrizione di 5 specie dell'Atlantico, il loro modo di vita; riproduzione; lo sviluppo dei piccoli; muta; migrazioni.

**Sosinovitch P.** - Sur le développement de la chasse aux animaux marins dans les estuaires des fleuves sibériens. (En russe). – 3 fig., Za Rybn. Ind. Sev., 3, 13-17. Leningrad (1936). **b - 1873**

**Tomiline A. G.** - Les baleines et la chasse des baleines dans l'URSS. (En russe). – Sov. Arkt. 5, 48-54. Leningrad (1935).

(—) Fish. Ind. U. S. S. R., 10 (?) (1935). **b - 1874**

**Tschapsky K.** - A Study of the Beluga or White Whale in the Northern Part of the Gulf of Obj and of the Beluga Fisheries. (In Russ., Engl. Summ.). – 1 fig., Bull. Arct. Inst., V, 12, 442-445, 446-447. Leningrad (1935). **b - 1875**

Results of an expedition sent out by the Arctic Institute in 1934 for the purpose of studying the stock of *Delphinapterus leucas* in this area with a view to organize the fisheries. Special attention has been made to the migrations of this species.

**Tschapsky K.** - The Study of the White Sea Herd of the Greenland Seal. (In Russ., Engl. Summ.). – Bull. Arct. Inst., VI, 3, 122-124, 148. Leningrad (1936). **b - 1876**

Information on investigation to be carried out during three years on the stock of Greenland seal in the White sea; their migrations, their amount, the quantitative and qualitative composition of the herd, etc.

**Valikov N.** - La pêche de *Delphinapterus leucas* Pall. en 1935 au Nord de l'Obj. (En russe). – Za Rybn. Ind. Sev., 3, 18-20. Leningrad (1936). **b - 1877**

**Zenkovitch B. A.** - Matériaux pour la connaissance des Cétacés des mers de l'Extrême-Orient (la baleine grise californienne- *Rhachianectes glaucus* Cope). (En russe, rés. angl.). – 2 fig., 1 carte. Vestn. Daljnevost. Fil. Acad. Naouk URSS (Bull. Fil. Estr.-Orient Acad. Sc. URSS), 10, 9–25, 27. Vladivostok (1934). **b - 1878**

**Zhilinskij A. A.** - Objectifs de l'industrie de la chasse marine au Nord. (En russe). – Khoz. Sev., 9, 5-13. Arkhangheljsk (1935). **b - 1879**

**Zhilinskij A. A.** - Sur le développement de la chasse à la baleine dans le Nord. (En russe). – Khoz. Sev., 3, 30-38. Arkhangheljsk (1936). **b - 1880**

**Zoubkov A.** - Résultats de l'industrie de la chasse et de la pêche sur les îles de l'Océan Arctique en 1934/35. (En russe). – 1 tabl., Bull. Inst. Arct., VI,2, 56-58. Leningrad (1936). **b - 1881**

Compte-rendu des résultats des campagnes de pêche et de chasse sur les îles Novaja Zemlja, Kolgoujev et Vajdatsch; quelques informations concernant le montant des stocks de poissons et d'animaux marins et terrestres.

**Eh.** - Deutschland fängt wieder Wale. – 6 Abb., Dtsch. Fisch.-Rundschau, 19, 431-432. Bremerhaven (1936). **b - 1882**

Die erste deutsche Walkocherei « Jan Wellem » und sechs Fangfahrzeuge werden jetzt auf eine Fang-Expedition ausgehen. Näheres über die Dampfer.

**J. O. B.** - Antarctic Whaling. – Polar Rec., 11, 105-108; 12, 173-174. Cambridge (1936). **b - 1883**

Norwegian whaling investigations 1935-36. Antarctic whaling 1935-36, the whaling fleet; number of fin whales taken; change in the locus of fishing; efforts of conservation legislation; research work.

**An.** - Die Grösse der gefangenen Whale nimmt ab. Nur etwa 71 % geschlechtsreife Tiere. – Dtsch. Fisch.-Rundschau, 17, 388. Bremerhaven (1936). **b - 1884**

Angaben über die während der antarktischen Expeditionen 1934-35 ausgeführten Messungen von 15876 Tieren.

**An.** - Der pelagische Walfang in der Antarktis 1934/35. – 4 Tab., Fischmarkt, N. F., IV, 1, 17-18. Cuxhaven (1936). **b - 1885**

Statistischer Bericht über die Ergebnisse des pelagischen Walfanges in der Antarktis während der Fangzeit 1934/35 and Hand der in « Hvalraadets Skrifter », n. 12, 1935, veröffentlichten Uebersicht.

**An.** - La chasse aux animaux marins. (En russe). – Khoz. Sev., 6, 79. Arkhangheljsk (1935). **b - 1886**

## *Crustacea et Crustaceorum cultura.*

**Dannevig A.** - Hummer og Hummerkultur. (In Norv.). – 16 fig., tab. 60 pp., Norw. Fish. & Marine Invest. (Fiskerid. Skr.), IV, 12, Bergen (1936). **b - 1887**

Insieme delle principali notizie sugli *Homarus*, sulla loro ecologia, sulla adattabilità a condizioni di temperature molto varie, comprese fra 0°-22° C, sui diversi stadi dello sviluppo embrionale fino alla maturità sessuale, sulla nutrizione, ed in particolare sulle migrazioni: appositi esperimenti di marcatura sono stati eseguiti sulle coste della Norvegia. Esame dei fattori che influiscono sulla composizione dello stock e studio della grandezza e del peso degli esemplari catturati. L'allevamento degli *Homarus* nella stazione di Flødevigen e descrizione dello speciale metodo di allevamento adottato. (See Engl. review in Nature, 3505, 35-36. London, 1939).

**Le Gall J.** - Les dundëes bretons sur la côte occidentale d'Afrique. – Mem. Off. Pêches Marit., Man. Pêches Marit. franç. (sér. spéc.), 11, 3, 44-47. Paris (1936). **b - 1888**

La pêche de la Langouste verte (*Palinurus regius* Brito. Cap.) à côté du *P. vulgaris*. Depuis la guerre cette pêche s'est ralentie et Douarnenez est actuellement le seul port armant encore les langoustiers. La pêche de la sardine longue les côtes du Maroc pour occuper pendant une période creuse les bateaux Thonniers.

**Mantel P.** - La pêche de la langouste aux Antilles par les pêcheurs bretons, I, II, III, IV. – 2 fig., Bull. Soc. Océanogr. de France; XVI, 87, 1515-1520; 88, 1528-1530; 89, 1547-1552. Paris (1936). **b - 1889**

L'A. rappelle avec quelques détails les diverses expéditions des pêcheurs bretons aux Antilles et essaye d'en dégager quelques conclusions et renseignements utiles. I. Pêches aux Antilles (1923-26). II. Le voyage du « Bienheureux Michel Noblez ». III. Les dernières expéditions et la découverte du banc de Caïques. IV. Conditions et procédés de pêche. V. Enseignements des expériences sur matériel, personnel, période de pêche, vente, remèdes.

**Monk V. J.** - Shrimp Fishing Leads in Gulf Region. – Fish & Oyst. Rep., XVII, 6, 8–9. Tampa, Fla (1936). **b - 1890**

Development of the shrimp industry in the Gulf region; life history of the shrimp, species caught, fishermen, trawl, cannery, the shrimp as a reason of the absence of goitre in the states using the greatest amount of shrimp products.

**Oshima S. & Uematsu T.** - Pond Culture Experiments with the Prawn (*Penaeus japonicus* Bate) and the Blue Crab (*Portunus trituberculatus* Miers). (In Jap., Engl. Rés.). – Tabl., Journ. Imp. Fish. Exp. Stat., VII, 233-285. Tokyo (1936). **b - 1891**

These experiments show the possibility of this culture hitherto considered nearly impossible.

**Plagmann J.** - Ursachen und Wirkung des Rückganges der Garnelenfischerei. – Fischmarkt, IV, 8, 207-213. Cuxhaven (1936). **b - 1892**

Vf. berücksichtigt besonders den Einfluss der hydrographischen Verhältnisse und der Ueberfischung.

**Thiel H., Werner H., Schmalfuss H. & Peters N.** - Die chinesische Wollhandkrabbe in Europa. IV, V, VI. – 6 Abb., Fischmarkt, N. F., IV, 5, 116-130. Cuxhaven (1936). **b - 1893**

IV. Ist die Wollhandkrabbe ein Nahrungskonkurrent unserer Nutzfische? (H. Thiel). V. Stoffliche Untersuchungen zur Verwertung der Wollhandkrabbe (H. Werner & H. Schmalfuss). VI. Schädlichkeit, Bekämpfung und Verwertung der Wollhandkrabbe (N. Peters).

(S. für N. I, II, III: Fischmarkt, IV, n. 4).

**Whiteley G. C.** - Newfoundland Lobster Investigations. – 3 figs., 2 tables, Rep. Newfoundl. Fish. Res. Lab. 1935, Div. Fish. Res., Dpt. Natur. Resources, Newfoundland, II, 5, Appendix C, 75-88. Cardiff (1936). **b - 1894**

Comparative length of the Lobster with respect to first egg-extrusion. Breeding areas. Dates of egg extrusion, hatching and moulting. Percentages of male and female lobsters and number of lobsters at various sizes in the catches, berried females, length of season, returns on the base of catch per 100 traps.

**An.** - The Lobster Industry. – Canad. Fisherm., XXIII, 1, 15; 2, 18-19; 3, 14-15; 4, 19; 5, 14-15; 7, 14-15. Gardenvale, Que. (1936). **b - 1895**

Account of the condition of the lobster catch and industry in Nova Scotia and New Brunswick and 1936. Annual Meeting of the C. M. A. (Fish Canner Section) at Halifax in January 1936. Necessity of preservation methods to prevent reduction of the stock.

**An.** - The Lobster Fishery. A Conference necessary to go over the Situation. – Canad. Fisherm., XXIII, 12, 20-21. Gardenvale, Que. (1936). **b - 1896**

Information on some action to be taken by the Government to stem the reduction.

**An.** - Die Krabbenfischerei 1935/36. Nach dem Jahresbericht der « Deuko ». – Fischmarkt N. F. IV, 9, 242-243. Cuxhaven (1936). **b - 1897**

Festgestellter Rückgang an der Küste von Westholstein, Elbe-Weser, Oldenburg, Ostfriesland und mögliche Ursachen. Preise, Arbeits- und Marktordnung.

**An.** - Fishery Industry Investigates the Possibility of Shrimp in the Gulf of Main. – Fish & Oyst. Rep., XVII, 12, 9. Tampa, Fla. (1936). **b - 1898**

According to Dr. Joh. Hjort of the University of Norway shrimp of the same species as the Norwegian ones are present in commercial abundance in the Gulf of Maine.

**An.** - New England Shrimp. – Fish. Gaz., LIII, 12, 10. New York (1936). **b - 1899**

Some information on the newly discovered shrimp beds and the industry in development which is going forward to a new era of prosperity.

## *Ostreae et alia Mollusca – Molluschicultura.*

**Borde F.** - Observations sur la production du naissain dans le bassin d'Arcachon en 1935. – Rev. Trav. Off. Pêch. Marit., IX, 1, 33, 97-100. Paris (1936). **b - 1900**

Température, pluviosité, densité des eaux en rapport à la croissance, et à la dissémination des Larves; rendement de la récolte.

**Bouxin H.** - Technique d'élevage de deux Palourdes comestibles (*Tapes decussatus* L. et *Tapes pullastra* Wood). – 8 fig., Rev. Trav. Off. Pêches Marit., IX, 1, 33, 101-112. Paris (1936). **b - 1901**

Récolte et élevage habituel des Palourdes. Technique d'élevage normalisée à partir d'animaux beaucoup plus petits et au prix d'un déchet beaucoup plus faible. Conditions préliminaires à l'établissement d'un parc: choix de l'emplacement: protection contre les vagues; affouillements et dépôts; la nature du sol; le niveau; lutte contre les prédateurs; mise en service et exploitation des parcs.

**Chaux-Thevenin H.** - Les claires expérimentales de l'Office Scientifique et Technique des Pêches Maritimes à la Tremblade. – 11 fig., diagr., Rev. Trav. Off. Pêches Marit., IX, 1, 33, 83-95. Paris (1936). **b - 1902**

Analyse chimique et biologique de la vase des claires expérimentales pour l'étude de la pousse et du verdissement des huîtres. Il faut considérer le présent travail comme un apprentissage à l'usage des claires expérimentales puisque aucune conclusion ne peut encore être tirée des observations faites.

**Clark F. N. & Phillips J. B.** - Commercial Use of the Jumbo Squid, *Dosidicus gigas*. – Calif. Fish & Game, XXII, 2, 143-144. Sacramento (1936). **b - 1903**

This species was not known to the San Pedro fishermen until August 1934. Since August 1935 several records of occurrence have been made off Monterey Bay and Santa Cruz.

**Cranston-Thomas** - An Inspection Tour Through a Modern Southern Oyster Plant. – 1 fig., Fish. Gaz., LIII, 5, 18 & 20. New York (1936). **b - 1904**

Brief account of a visiting tour to Crystal River bordering on the Gulf of Mexico, where the oyster beds belonging to the Oyster Properties, Inc., are located.

**Dollfus R. Ph.** - Les huîtres comestibles sur la côte atlantique du Maroc, bancs naturels, perspectives ostréicoles. – Ass. franç. avanc. sc., 58ème session, 246-248. Paris (1935). **b - 1905**

**East F. F.** - The Oyster Situation. – Fish. Gaz., LII, 2, 27. New York (1935). **b - 1906**

Considerations as to the necessity of a change in the present day system of handling and doing business in the oyster industry in order to save it from destruction.

**Herman A.** - Rapport sur la reproduction des Huîtres indigènes dans le Morbihan et le Finistère en 1935. – 2 graph., Rev. Trav. Off. Pêches Marit., IX, 1, 33, 77-82. Paris (1936). **b - 1907**

Les collecteurs d'une façon générale sont en augmentation partout; l'émission des larves, repartie sur une période allant du 12 juin au 31 août, a dépassée de beaucoup celle de l'année dernière mais malgré cette abondance la fixation n'a pas été très bonne.

**Kändler R.** - Austernwirtschaft im Ausland und in Deutschland. – Fischmarkt, N. F., IV, 1, 4-9. Cuxhaven (1936). **b - 1908**

Die gegenwärtigen Aussichten der Bewirtschaftung der nordfriesischen Austernbänken: Ausgestaltung des Mastbetriebes und Wiederherstellung der natürlichen Fruchtbarkeit der Bänke. Gefahr durch Schädlinge. Bezugsquellen. Zuchtmethoden.

**Lambert L.** - La culture de la moule en Hollande. – 21 fig., 1 tabl., 11 tabl. en app., Rev. Trav. Off. Pêches Marit., VIII, 4, 431-480. Paris (1935). **b - 1909**

Historique. Centres de production. Le naissain. Elevage et engraissement. La pêche et la mytiliculture dans le Waddenzée. Maladies et ennemies de la moule. Matériel, outillage. Administration, surveillance et contrôle sanitaire. Production - débouchés.

**Lambert L.** - L'Ostréiculture, la Mytiliculture et la Conchyliculture. – 49 fig., Mém. Off. Pêches Marit. 12, Man. Pêches Marit. franç., 4, 91-147. Paris (1936). **b - 1910**

Les bancs d'*Ostrea edulis* sur les côtes de France: la récolte du naissain par collecteurs de terre cuite, l'élevage dans les caisses ostréophiles, l'affinage ou engraissement des huîtres de trois ans, l'éxpédition à la consommation de l'huître après avoir été dans un bassin ou elle dégorge ses impurités. La mytiliculture, les gisements naturelles de *Mytilus edulis* dans les côtes de la Mer du Nord et de *M. galloprovincialis* sur les côtes de la Méditerranée. La conchyliculture: liste des coquillages qui font l'objet de la pêche sur les côtes françaises: Mollusques, Crustacés, Tuniciers et Echinides.

**Matheson C.** - The Oyster Fishery at Mumbles, Glamorgan. – Trans. Cardiff Natur. Soc., LXVI, 81-86. Cardiff (1933). **b - 1911**

**Mathisen Sømme O.** - Østerskulturen i Norge og problemer som knytter sig til denne. (In Norw.) – 1 fig., Naturen, LX, 4, 111-123. Bergen (1936). **b - 1912**

Historical remarks on the oyster culture in Norway. Sexuality, reproduction and larvae, growth and factors concerned, parasites. Measures to remedy the oyster culture in Norway: Oyster-pools.

**Orton J. H.** - Shellfish and their Cultivation. – Fish. News, 26, (6-VII). Aberdeen (1935). **b - 1913**

**Quinn A. H.** - Oyster Planting Program To Begin in Maryland May 1. – Fish & Oyst. Rep., XVII, 5, 10-11. Tampa, Fla (1936). **b - 1914**

Brief account of the oyster shell planting program which has been advocated as a means of rehabilitating the barren bottoms in the Chesapeake Bay area.

**Quinn A. H.** - Maryland Oyster Planting in Full Swing as Japanese Competition Threatens State Industry. – Fish & Oyst. Rep., XVII, 7, 7; 11, 14-15. Tampa, Fla. (1936). **b - 1915**

Brief account of the activity of the Conservation Commission of Maryland and its policy in the matter of seed oyster distribution and in the realisation of a shell planting program. Some considerations regarding the Japanese competition.

**Ranson G.** - L'absence de naissains d'huîtres portugaises en 1934 et 1935, dans la Région de Marennes. Causes et conséquencés. – 6 fig., Rev. Trav. Off. Pêches Marit., IX, 1, 33, 67-75. Paris (1936). **b - 1916**

L'absence de naissains peut se rapporter à une insuffisante nourriture des Huîtres mères dont les produits n'ont pas été viables, qu'ils soient arrivés à l'état de larves ou non. Une longue période d'années sèches entraînerait la disparition momentanée et relative de *Gryphea angulata* Lmk par suite d'alimentation insuffisante, tandis qu'elle favoriserait le développement de *Ostrea edulis* L.

**Solis S.** - El Ostiòn y su Cultivo. – Bol. Dep. Forest. y Caza y Pesca, 1, 233-247. Mexico (1936). **b - 1917**

**Tabor J. M.** - The Oyster Trade in 1936. Increase in Supplies from the English Beds. – 1 photo, Fish Trad. Gaź., LIV, 2796, 47. London (1936). **b - 1918**

The main feature of the oyster industry in 1936 is the substantial falling off in supplies from Holland and the progressive increase in supplies from the English beds.

**Wright F. S.** - Report on Investigations into the Condition of Certain of the Oyster Beds in the South Wales Sea Fisheries District (June, 1934). - 3 figs., 10 tables, 4 maps o. t., Min. Agric. & Fish., Fish. Invest., Ser. 2, XIV, 5, 3-29. London (1936). **b - 1919**

A summarised account of the investigations and experimental work in the South Wales District towards the improvement of the local oyster fisheries. The investigations of the summer of 1934, and results of the experimental relaying of Portuguese oysters in Milford Haven and the River Cleddau, Recommendations as to future experimental work towards increasing the stocks of oysters in the South Wales natural oyster beds. (Bibl.).

**Wright F. S.** - Report on the Maldon (Essex) Periwinkle Fishery. – 6 figs., 8 tables. Min. Agric. & Fish., Fish. Invest., Ser. 2, XIV, 6, 1-37. London (1936). **b - 1920**

Results of an investigation carried out in order to discover the effect of dredging in reducing the stock of periwinkles in the main channel of the River Blackwater, completed by data on the natural history of *L. littorea* L. and allied species, summarized from literary sources; some recommendations are also made in regard to conservation of this species.

**F. T. G. Representative** - The Oyster Fishery at Whitstable carries on the Tradition of a Thousand Years. – Fish Trad. Gaz., LIV, 2779, 25 & 29. London (1936). **b - 1921**

History. Prospects for the season. Conditions of the beds.

**L. C. H.** - Oysters. – Fish Trad. Gaz., LIV, 2779, 23. London (1936). **b - 1922**

Rather popular article on fishing, research work, not British oysters, selling conditions and preparation.

**An.** - Die Speisemuschel. Ein noch zu wenig beachtetes Erzeugnis der deutschen Küstenfischerei. – Dtsch. Fischwirt., III, 48, 808-809. Berlin (1936). **b - 1923**

Es wird empfohlen im Handel die Bezeichnung Speisemuschel anstatt Miesmuschel zu gebrauchen. Ueberblick über das Vorkommen und den Fang dieser Muschel.

**An.** - Oyster Farming. – 1 photo, Fish. Gaz., LII, 10, 9. New York (1935). **b - 1924**

Account of a day spent at one of Long Island's large oyster farms and confirmation of report that oyster were never better than during the 1935 season.

**An.** - Continue Oyster Pest Control Work. – Fish. Gaz., LIII, 5, 20. New York (1936). **b - 1925**

Statement by Commissioner Bell released in order to urge private oyster planters and fishermen to continue the work of killing oyster pests if they wish to escape their ravages during the coming year, in spite of the fact that no government funds are more available for oyster pest control work after July Ist, 1936.

### *Species variae.*

**Behre A.** - Begriffsbestimmungen für Fische und Fischzubereitungen, einschliesslich Krebs- und Weichtiere (Schluss). – Dtsch. Fischwirt., II, 49, 907-908. Berlin (1935). **b - 1926**

Vollkonserven. Aufgüsse. (S. ibid. 20, 425-427 und 45, 843-846. 1935).

**Coupin H.** - Utilisation des Algues marines. – Rev. scient., LXXIV, 16, 489-497. Paris (1936). **b - 1927**

Utilisation agricole, chimique, pour la bactériologie, pour l'alimentation de l'homme, pour l'alimentation des animaux. Utilisations diverses.

**Le Gall J.** - L'utilisation des plantes marines. L'industrie des Algues. – 28 figs., Mém. Off. Pêches Marit., 12. Man. Pêches Marit. franç., 4, 65-88. Paris (1936). **b - 1928**

Les Cyanophycées, les Chlorophycées, les Phéophycées et les Floridées ou Rhodophycées des côtes de France. L'utilisation des goëmons d'épaves et des goëmons de rive en agriculture pour la fumure des terres; les goëmons de fond sont recherchés par l'industrie pour leur teneur en iode. La récolte du goëmon de coupe, l'incénération des goëmons, le traitement des soudes.

L'utilisation alimentaire des Algues marines. Les prairies sous-marines de *Zostera* ou « Crin végétal ».

**Mazzarelli G.** - Grande pesca di « cicerelli » (*Ammodytes cicerellus* Raf.) allo stato giovanile nello stretto di Messina e adiacenze tirreniche. – Boll. Pesca, Piscicolt. & Idrobiol., XII, 3, 217-221. Roma (1936). **b - 1929**

Viene dato conto dell'andamento generale della pesca, dell'itinerario dei pesci e delle dimensioni e peso dei singoli individui.

**Savatimskij** - Résultats de la pêche et de la chasse aux animaux marins. (En russe). – Sov. Arkt., 1, 78. Leningrad (1935). **b - 1930**

**Scatizzi I.** - La pesca del corallo. – 10 fig., Boll. Pesca Piscicolt. & Idrobiol., XI, 5, 706-726. Roma (1935). **b - 1931**

Sistemi e sviluppi della pesca del corallo nel Mediterraneo. Qualità del corallo e sua lavorazione nel bacino mediterraneo.

**Takayama I., Sakai M., & Ando S.** - An Investigation of the Present Position of Import Fisheries. II. On the « Sanma » (*Cololabis saira* Brev.) Fishery. (In Jap., Engl. Rés.). – tabl., figs., Journ. Imp. Fish. Exp. Stat., VI, 281-310. Tokyo (1935). **b - 1932**

Decrease in this important fishery on account of overfishing. The investigations concern number of boats used, area of fishing grounds and amount of the catch in 1931.

**Uda M.** - Fishing Centre of « Sanma » *Cololabis saira* (Brevoort), correlated with the Head of Oyasiwo Cold Current. (In Jap., Engl. Rés.). – 2 figs., Bull. Jap. Soc. Scient. Fish., V, 4, 236-238. Tokyo (1936). **b - 1933**

The fishing relatively grows or diminishes according to the fluctuation of the intensity of two branches of the cold current. The shoals of the sanma migrate in the direction of the maximum gradient of the surface temperature.

**Uno M.** - On the Constitution of Skipper, *Cololabis saira* Brev., Fished by Drift-Nets in the North-Eastern Waters of Japan. (In Jap., Engl. Summ.). – Bull. Jap. Soc. Scient. Fish., IV, 3, 158-160. Tokyo (1935). **b - 1934**

Results of comparative measurements of the body length of *C. saira* Brev. at three periods, when respectively the first, second, and third year-rings on the scale are formed, made in different localities where the species is fished. No local difference in the body-length was observed.

**Uno M.** - Drift–net Skipper in the North-eastern Waters of Japan (Preliminary Report III). (In Jap., Engl. Rés.). – 1 graph. fig., 2 tabl., Bull. Jap. Soc. Scient. Fish., V, 2, 91-92. Tokyo (1936). **b - 1935**

Report on analysis of samples.

**Velaz de Medrano L.** - Sobra la pesca del esturión. – Bol. Pesca y Caza, VIII, 5, 1-5. Madrid (1936). **b - 1936**

La existencia de esturiones en el Guadalquivir e la pesca excesiva y abusiva. Necesidad de proteger y implantar los esturiones.

**Zikulenko P. V.** - Zur Biologie des Schips und Massnahmen zu dessen Erhaltung in dem Syr-Darja. (In Russ., Dtsch. Rés.). – 3 Abb., Rep. Aral-Sea Div. Inst. Marine Fish., IV, 115-126. Aralsk (1935). **b - 1937**

Bericht über den Winterfang entlang den Nordwest-Ufer des Aralsees, wo dieser Fisch überwintert. Wanderungen, Hauptlaichgebiet. Vorschlag einer Regulierung des Fanges infolge der Gefahr von Ueberfischung.

## Fructus piscationis aestimatio alimentaris.

**Abderhalden E.** - Eiweiss von Seefischen als Nahrungsmittel. – 2 Tab., Dtsch. Fisch.-Rundschau, 9, 193-194. Bremerhaven (1936). **b - 1938**

Ein Beitrag zur Lösung der Frage der Deckung des Eiweissbedarfs im Inland. Vortrag gehalten in der Sitzung der Deutschen Akademie der Naturforscher vom 13. 12. 1935, (zuerst erschienen in « Nova Acta Leopoldina », N. F., III, 17). Es kommt klar aus der Betrachtungen des Vf. vor, dass das Fischmuskeleiweiss ein biologisch hochwertiges Produkt darstellt.

**Bailey B. E.** - The Nutritive Value of Marine Products. VII. The Vitamin A and D Potency of the Oils from British Columbia Canned Salmon. – Journ. Biol. Bd. Canada, II, 5, 431-437. Toronto (1936). **b - 1939**

In each species of canned *Oncorhynchus nerka* and *O. gorbuscha* the vitamin D potency of one of the samples was 50 international units per gm., and of two of the samples, 67 international units per gm. Two samples of sockeye salmon oil contained approximately 2.5 and 2.0 A. D. M. A. units of vitamin A per gm.

**Carere Comes O.** - Valore nutritivo della carne di pesce in confronto di quella di bue. – Quadr. Nutr., III, 5, 342-350. Napoli (1936). **b - 1940**

Nutrendo ratti albini soltanto con carne magra di bue oppure con sardelle (*Clupea pilchardus*) l'A. ha messo in evidenza che i primi hanno subito un netto arresto dell'accrescimento, mentre i secondi hanno continuato a crescere quasi quanto i controlli a dieta mista. Poichè la quantità di azoto ingerita, riferita all'unità di peso, è praticamente la stessa, risulta che la carne di pesce è assai superiore.

**Carter N. M.** - The Nutritive Value of Marine Products. VIII. Proximate Analysis of canned British Columbia Sockeye and Pink Salmon. – Tabl., Journ. Biol. Bd. Canada, II, 5, 439-455. Toronto (1936). **b - 1941**

The proximate compositions and calculated calorific values of individual and composite samples of *Oncorhynchus nerka* and *O. gorbuscha* caught in several localities on the British Columbia coast are compared. The resulting data are presented in such a way as to allow comparison of the composition and energy content of the various constituents in the can, some of which are frequently discarded in the utilization of canned salmon. (From A:s abstr.).

**Fielder R. H.** - Consider the Fishes. – Fish & Oyst. Rep., XVII, 12, 6-7. Tampa, Fla. (1936). **b - 1942**

General considerations on the alimentary value of fish with special regard to its content of minerals.

**Finzel** - Der Fisch in der Ernährung von heute. – Dtsch. Fischwirt., II, 51, 938-944. Berlin (1935). **b - 1943**

Kurzer Bericht über die heutige Lage in der Fischversorgung, im Fischhandel und -konsum im Dritten Reiche.

**Hoske H.** - Der Fisch in der Volksernährung. – Dtsch. Fisch.-Rundschau, 18, 410-411. Bremerhaven (1936). **b - 1944**

Statistische Angaben über den Verbrauch in England und Deutschland. Nahrungswert des Fisches. Zubereitung, Resteverwertung. Sättungsgrad der Fischspeise. Verschiedene Arten von Bereitung.

**Lundbeck J.** - Die natürliche Veränderlichkeit in der Körperverfassung der Fische. – Dtsch. Fischwirt., III, 43, 713-715. Berlin (1936). **b - 1945**

Verhältnisse, die auf den Stoffwechsel und den Wachstum einwirken. Charakteristik der Fett- und Magerfische: Veränderungen in der Konsistenz des Fleisches durch Wanderungen, Laichperioden, Temperatur- und Nahrungsverhältnisse. Beispiele. Vergleich zwischen Fett- und Magerfischen.

**Quagliariello G.** - Il valore nutritivo dei prodotti della pesca. – Boll. Pesca, Piscicolt. & Idrobiol., XII, 2, 82-104. Roma (1936). **b - 1946**

Nelle presenti ricerche sui prodotti della pesca viene riferito sul contenuto percentuale in protidi, glucidi, lipidi e sostanze minerali. Digeribilità, assorbimento e valore alimentare delle carni di pesce; il loro contenuto in vitamine.

**Riddell W. A.** - The nutritive Value of Marine Products. XI. Proximate Analysis of Canned British Columbia Coho (Blueback) Salmon. XII. Mineral Constituents of some Food Fishes of British Columbia. XIII. Mineral Constituents of the Flesh, Skin, Bone and free Liquor in Canned British Columbia Coho (Blueback) Salmon. – Tabl., Journ. Biol. Bd Canada, II, 5, 763-468; 469-472; 473-475. Toronto (1936). **b - 1947**

XI. The nutritive value of canned *Oncorhynchus kisutch* appears to be greatest when the fish are caught in July. XII. The magnesium content is very uniform from species to species, but the other constituents, Ca, Na, Ka, P, Cl, S, Cu and Mn show considerable variations. XIII. Presence of calcium and magnesium metaphosphates in the ash of the flesh, calcium metaphosphate in that from the skin and tribasic calcium orthophosphate in that from the bone.

**Rizzo L.** - I prodotti del mare nell'alimentazione. – 8 tab., 52 pp., Manuali « Diana ». Firenze (1936). **b - 1948**

Le richieste alimentari dell'organismo umano e le sostanze atte a soddisfarlo; le proteine e il loro valore biologico. Le carni di pesce ed il loro valore alimentare; importanza dell'alimentazione ittica in determinate condizioni patologiche quali l'uricemia, l'arteriosclerosi, la calcolosi biliare e le gastropatie.

**Schmidt E.** - The Food Value of Herrings. – 1 table, Fish Trad. Gaz., LIV, 2792, 43 & 45. London (1936). **b - 1949**

Herring supplies the three principal foodstuffs in a very high percentage and at a very low cost; it contains important mineral salts and vitamins of exceptional value. (From A:s rés.).

**Tully J. P.** - The nutritive Value of Marine Products. XIV. Proximate Analyses of Fresh British Colombia Oysters. – Tabl., Journ. Biol. Bd. Canada, II, 5, 477-484. Toronto (1936). **b - 1950**

The food value of the oysters in terms of available energy shows very little seasonal variation. The glycogen and protein values definitely associated with the sexual conditions show however marked seasonal variations. Conclusions as to the time for best marketable conditions for *Ostrea lurida*, *O. virginica* and *O. gigas*.

**Visco S.** - Il valore nutritivo dei pesci e la sua importanza per l'alimentazione nazionale. – 43 p., Atti del Conv. di Pesca, ecc. Tip. A. Manuzio. Roma (1936). **b - 1951**

Il testo della comunicazione manca: viene riportata solo la discussione.

**White F. D.** - The Nutritive Value of Marine Products. IX. Proximate Analysis of British Columbia canned Pilchard. – Tabl., Journ. Biol. Bd. Canada, II, 5, 457-460. Toronto (1936). **b - 1952**

The percentage of fat (18.5) in the late- caught fish was almost twice as great as that in the early-caught fish. Separate proximate analyses of the flesh, skin, and bone disclosed significant changes in the percentages of fat, protein, and minerals in these components between the beginning and end of the season. (A.).

**White F. D.** - The nutritive Value of Marine Products. X. Proximate Analysis of Ling Cod. – Tabl., Journ. Biol. Bd. Canada, II, 5, 461-462. Toronto (1936). **b - 1953**

Great nutritive value of the flesh and skin of *Ophiodon elongatus* due to protein content. Average composition of flesh and cod reported in tables. The skin has a protein content roughly 50% greater than that of the flesh.

**An.** - Die medizinische Wissenschaft setzt sich für den Fisch ein. – Dtsch. Fischwirt., III, 25, 393-395. Berlin (1936). **b - 1954**

Besprechung einiger in der « Deutschen Medizinischen Wochenschrift » Nr. 21 erschienenen Aufsätze über die Zusammensetzung und Verdaulichkeit des Fleisches der Seefische, seine Besonderheiten als Nahrungsmittel, Seefischkost für die Krankendiät, Volks- und Kindesernährung, Resteverwertung usw.

**An.** - Walfleisch, ein neues Nahrungsmittel. – Dtsch. Fischwirt., III, 44, 749. Berlin (1936). **b - 1955**

Kurze Notiz über das in Berlin veranstaltete Walfleischprobeessen.

**An.** - Der Fisch in der Ernährung. – Fischmarkt, IV, 6, 162-163. Cuxhaven (1936). **b - 1956**

Kurze Wiedergabe der unter der obigen Hauptüberschrift in der « Dtsch. Med. Wochenschr. », H. 21, v. 22 Mai 1936 veröffentlichten Aufsatzreihe, in der die Fischkost vom ernährungsphysiologischen, ärztlichen und hygienischen Gesichtspunkt beurteilt wird.

**An.** - Pacific Salmon. Canned Seafood Supreme. – 5 figs., Pacif. Fisherm., Yearbook 1935, 94-97. Seattle, Wash. (1935). **b - 1957**

« Grades » of Salmon are different species. Nature and habits. Catching and canning. Cans and labels. Nature and qualities of the various species. Red or Sockeye. Coho or silver. Pink salmon. Chum or Keta. The Steelhead. Canned Salmon high in food health value in vitamin potency. Jodine and minerals. A royal dish. An all- round food.

# MERCATUS

## *Provisiones, propaganda, venditio. Piscium consummatio.*

**Bahr K.** - Schutz und Förderung der Küstenfischerei durch Marktordnung. – Dtsch. Fischwirt., III, 44, 742-743. Berlin (1936). **b - 1958**

Ueber den Begriff Marktordnung. Erläuterung der Anordnungen Nr. 14 und 30 der Hauptvereinigung der Deutschen Fischwirtschaft über die Neuinbetriebsetzung von Fahrzeugen, die Wiederaufnahme nicht nur vorübergehend geschlossener Betriebe und die Vergrösserung eines Betriebes. Fangverwertung und – verteilung. Notwendigkeit enger Zusammenarbeit.

**Beach H. W. & Prytherch H. F.** - Two Leaders of the Oyster Industry Give Their Views. – 2 photos, Fish. Gaz., LIII, 5, 12-13. New York (1936). **b - 1959**

Considerations concerned with the decrease of oyster consumption in the United States and the means to promote the oyster industry.

**Beyerlein W.** - Brötchen mit Fischdelikatessen auf Volks- und Schützenfesten. Der reisende Fischspezialitätenhändler ein wichtiger Abnehmer der Fischindustrie. – Dtsch. Fischwirt., III, 22, 345-346. Berlin (1936). **b - 1960**

Ueber den allgemeinen propagandistischen Wert der hier beschriebenen Brötchen.

**Beyerlein W.** - Braune Messen und Ausstellungen rufen nach dem Einsatz des Fischspezialhandels. Erfahrungen und Winke aus der Praxis. – Dtsch. Fischwirt., III, 38, 604-606. Berlin (1936). **b - 1961**

Betrachtungen über die vom Institut für Deutsche Wirtschaftspropaganda veranstalteten Ausstellungen « braune Messen ». Wie der Ausstellungsstand einer Fischhandlung gemacht wird. Beispiele des Nutzens vom Propaganda.

**Brenning O.** - Zur gegenwärtigen Lage des Fischeinzelhandels. – Dtsch. Fischwirt., III, 20, 309-310. Berlin (1936). **b - 1962**

Verteidigung des Spezialfischhandels als Hauptträger der Fisch- und Fischwaren–Verteilung.

**Bretthofer W.** - Ein paar zeitgemässe Betrachtungen zur Förderung des Seefischabsatzes. – Dtsch. Fischwirt., III, 13, 199-200. Berlin (1936). **b - 1963**

Vf. betont die Notwendigkeit die in weiten Kreisen bestehende Voreingenommenheit gegen den Seefisch in zweckmässiger Weise zu überwinden und einen geschulten Fachhandel zu schaffen. Ratschläge für die Propaganda.

**Brüggemann R.** - Was muss in der See- und Küstenfischerei getan werden ? – Dtsch. Fischwirt., III, 44, 741-742. Berlin (1936). **b - 1964**

Notwendige Massnahmen: Absatzbeförderung der Massenfänge an Hering, Sprott, Dorsch, Bleifischen und Plötzen; Aufklärungs- und Schulungsarbeit unter den Fischern: Senkung der Unkosten der Fischerei, Darlehen für Fahrzeuge usw; Schonmassnahmen und Regelung.

**Buchler W.** - Round the World's Fish Markets. Antwerp, Second Call, 7.000 Square Metres of strictly supervised Market. – Fish Trad. Gaz., LIV, 2768, 27. London (1936). **b - 1965**

Transport possibilities from abroad. Taxes levied. Restrictions of sale. No colouring or painting. Statistics of sale during recent years.

**Eichelbaum E.** - Ueber die ernährungspolitische Aufgabe der deutschen Fischerei. – Dtsch. Fisch.-Rundschau, 22, 517-519. Bremerhaven (1936). **b - 1966**

Einige Massnahmen um den einzelnen Zweigen der deutschen Fischwirtschaft zu helfen: Dampfhochseefischerei, Loggerfischerei, Küstenfischerei, Binnenfischerei.

**Eichelbaum E.** - Welche Massnahmen müssen zur Lösung der ernährungspolitischen Aufgabe der Fischwirtschaft ergriffen werden ? – Dtsch. Fischwirt., III, 45, 757-760. Berlin (1936). **b - 1967**

Notwendigkeit eines starken Fischverbrauchs in Deutschland; Markt- und Preisregelung; Neubauten und Verwendungsmöglichkeit der Fischdampfer für die vermehrte Erzeugung von Fischmehl; Einschränkung der Einfuhr von Salzheringen; Erhaltung der Fischbestände und Lösung des Ueberfischungproblems.

**Fichte O.** - Kleinarbeit in der Fischpropaganda. Ratschläge aus der Praxis für den Einsatz des Fischeinzelhandels in der Fischwerbung. – Dtsch. Fischwirt., III, 19, 289-290. Berlin (1936). **b - 1968**

Praktische Anweisungen für die Bereitung von Fisch.

**Fichte O.** - Was hat der Fischspezialhandel jetzt zu tun ? Folgerungen aus der Praxis. – Dtsch. Fischwirt., III, 50, 837-838. Berlin (1936). **b - 1969**

Allgemeine Ratschläge um die Fischspezialhändler zu ermutigen, zu beraten und zu einer moderneren Geschäftsführung zu bringen..

**Fischer L.** - Lebendige Marktordnung in der Fischwirtschaft, Schlagkräftige Durchführung durch die Sonderbeauftragten. Umfassende Befugnisse. – Dtsch. Fischwirt., III, 49, 823-824. Berlin (1936). **b - 1970**

Gemäss Bekanntmachung der Hauptvereinigung der deutschen Fischwirtschaft vom 20. November 1936 ist für die Durchführung der Marktordnung je ein Sonderbeauftragter für das Nordseegebiet (Wesermünde, Cuxhaven, Hamburg-Altona) und die Ostsee ernannt, über deren Befugnisse hier berichtet wird. (Nach Vf.).

**Fuhrmann A.** - Die Wettbewerbsverhältnisse im Küstengrosshandel werden bereinigt. Früher Verfall – heute wieder Gesundung. – Dtsch. Fischwirt., III, 43, 694 & 697-698. Berlin (1936). **b - 1971**

Uebersicht der Verhältnisse seit den Nachkriegs – Jahren: besonders schwere Verhältnisse während 1929-1932, ungesunde Konkurrenz, Verschuldung; Umschwung 1933: Festsetzung der Mindestverkaufpreise; die Bedeutung der Hauptvereinigung der Deutschen Fischwirtschaft.

**Groening A. M. & Kersten W.** - Die Rohstoffgrundlagen der deutschen Fischindustrie. – Dtsch. Fischwirt., III, 43, 700-702. Berlin (1936). **b - 1972**

Die Bedeutung des Trawlherings für die deutsche Fischwirtschaft. Notwendigkeit der Versorgung der Binnenmärkte auch während der Trawlheringssaison (Anordn. 26 der Hauptvereinigung); der Frischheringsimport; Regelung der Weiterverteilung (Anordn. 33): Preisprüfung. (Anordn. 12 u. 13). Problem der Rohwarenbeschaffung durch Anfertigung von Halbfabrikaten.

**Hartwig H.** - Die Fischwirtschaft im Vierjahreplan vor einer Generalanordnung für den Seefischmarkt. – Dtsch. Fischwirt., III, 49, 821-823. Berlin (1936). **b - 1973**

Von der Arbeitstagung der Hauptabteilung III des Reichsnährstandes in Goslar. Bemerkbarer Aufschwung der Hochseefischerei seit 1933. Massnahmen: Preisregelung, Organischer Ausbau der Marktordnung, Ausbau des Absatzes und Propaganda, Neuordnung der Industrie, Regelung der Einfuhr.

**Heyer Fr.** - Die Sorgen des Spezial-Fischeinzelhandels sind auch die Sorgen des Küstengrosshandels. – Dtsch. Fischwirt., III, 8, 114-115. Berlin (1936). **b - 1974**

Stellungsnahme eines Fischgrosshändlers von der Küste zu den schwierigen Fragen der Seefischversorgung und - verteilung. Vf. schlägt einen Weg vor, auf dem nach seiner Ueberzeugung auf die Dauer allein das Ziel eines gesteigerten Fischabsatzes und des gleichmässigen Absatzes während des ganzen Jahres erreicht werden kann.

**Laurinat K.** - Erhöhte Fischversorgung – ein Qualitätsproblem. Die Qualität der deutschen Seefischereierzeugnisse muss planmässig gefördert werden. – Dtsch. Fischwirt., III, 43, 693-694. Berlin (1936). **b - 1975**

Notwendigkeit einer objektiven fachmännischen Kontrolle nicht nur für hygienische Zwecke sondern auch für die Absatzförderung: einwandfreie Einrichtung und Ausstattung des Produktions-, Verarbeitungs und Versandbetriebes, Beratungen und Aufklärungen.

**Leach G. C. & James M. C.** - Propagation and Distribution of Food Fishes, Fiscal Year 1935. – 7 tables, U.S. Dpt. Comm., Bur. Fish., Admin. Rep. 22, 401-427. Washington D. C. (1936). **b - 1976**

Species propagated. Production. Construction activities. Cooperation with other conservation agencies. Salvage operations. Assignments of fish eggs to States, Territories, and foreign countries. Transfer of eggs between stations. Station output. Egg collections. Notes on operations. Aquarium. Distribution operations.

**Leusner H.** - Die deutsche Schule muss der Fischwirtschaft helfen. Ein Propaganda-Weg, der noch weiter ausgebaut werden muss. – Dtsch. Fischwirt., III, 51, 853-854. Berlin (1936). **b - 1977**

Einige Ratschläge für einen eventuellen Lehrplan: fischereiwirtschaftlichen Unterricht in den Fächern Erdkunde bei der Volksschule, Geographie, Biologie und Chemie bei den mittleren und höheren Schulen und in Wirtschaftsgeographie und Volkswirtschaftslehre bei den Berufs – und Handelsschulen einzuführen.

**Mc Kay C.** - Consumption Fails to Meet Production in Fish. – Canad. Fisherm., XXIII, 5, 27-28. Gardenvale, Que. (1936). **b - 1978**

Author claims that the real problems of the Canadian Fishing Industry will not be solved by expansion of export trade, but by increasing domestic consumption and a very considerable improvement in the depressed living standard of the masses. The responsability on the situation of the Canadian public policy is discussed.

**Mühleissen E.** - Gau-Thüringen - ein Musterbeispiel für Seefischwerbung. – Fischmarkt, N. F., IV, 1, 19. Cuxhaven (1936). **b - 1979**

Kurzer Bericht über die Einwirkung auf den Fischkonsum in Thüringen der von Gau Thüringen geführten erfolgreichen Propaganda zur Vermehrung des Seefischverbrauchs.

**Radmann O.** - Der binnenländische Fischgrosshandel sorgt für mustergültige Fischversorgung. – Dtsch. Fischwirt., III, 43, 698-699. Berlin (1936). **b - 1980**

Die grosse Bedeutung des Fischeinzelhandels, für die Abgabe der Produkte. Kurzer Ueberblick der Entwicklung des Binnengrosshandels seit 1850. Berlin als Musterbeispiel für den Aufbau einer Absatzorganisation der Fischwirtschaft.

**Reinhold J.** - Zum Abschluss der Filet-Aktionen des Winterhilfswerkes. – Dtsch. Fischwirt., III, 14, 214-215. Berlin (1936). **b - 1981**

Während der Saison 1935/36 wurden in Berlin vom Winterhilfswerk 42000 Zentner Fische aufgenommen und durch den Gross- und Einzelhandel an die Betreuten verteilt. Näheres über die durchgeführte Aktion.

**Schiemenz K.** - Aufklärung und Propaganda auch in der Fischwirtschaft. – Dtsch. Fischwirt., III, 43, 691-692. Berlin (1936). **b - 1982**

Ratschläge für eine gesunde und zweckmässige Beförderung der Aufklärung und Propaganda mit besonderer Berücksichtigung der Fachpresse.

**Sefrin A.** - Zur Marktordnung in der deutschen Fischwirtschaft. Was lehren die bisherigen Erfahrungen? - Folgerungen für den organisatorischen Aufbau der Hauptvereinigung und die Durchführung der Verwaltungsarbeit. – Dtsch. Fischwirt., III, 18, 273-275. Berlin (1936). **b - 1983**

Die Hauptvereinigung der deutschen Fischwirtschaft. Die Fachschaften und Unterfachschaften. Die be- und verarbeitenden Betriebe. Die Aufgabe der Fachschafts – und Gruppenleiter. Notwendigkeit wegen der Kleinarbeit Aussenstellen der Hauptvereinigung einzurichten.

**Stock** - Verstärkte Propaganda für den Seefisch. – Dtsch. Fisch.-Rundschau, 4, 76-77. Bremerhaven (1936). **b - 1984**

Rundschreiben über die ergriffenen Propagandamassnahmen auf Veranlassung der Hauptvereinigung der Deutschen Fischwirtschaft vom Reichs-Seefischausschusse vorbereitet.

**Taylor H. F.** - Let us take Advantage of the National Trend in Diet. – 2 figs., Fish. Gaz., LIII, 11, 8-9. New York (1936). **b - 1985**

Stating that « there never was a time in history when opportunity shone so brightly for the fisherman than now ». A. speaks of the changed habits of modern life requiring another diet for which fish food seems to be expecially adapted.

**Tillessen** - Ohne leistungsfähigen Fischhandel keine Sicherung der Fischversorgung. Auch der verantwortungsbewusste Fischverteiler muss geschützt werden. – Massnahmen und Ziele der Hauptvereinigung zur Leistungsteigerung des Verteilerapparates. – Dtsch. Fischwirt., III, 26 409-413. Berlin (1936). **b - 1986**

Rede gehalten an der Sondertagung der Hauptvereinigung der deutschen Fischwirtschaft am 16. Juni 1936 über die Bedeutung und die Aufgaben des Fischhandels für die Fischwirtschaft und die Fischversorgung. Der Grosshandel. Die Regelung der Einfuhr. Regelung des Schollenmarktes. Das Geschäftsgebaren und der Wettbewerb. Ausbau des Fisch- und Fischwarenspezialhandels.

**Wiese E.** - Fördert den Absatz der deutschen Eisscholle. – Dtsch. Fischwirt., II, 52, 953-954. Berlin (1935). **b - 1987**

Stellungsnahme gegen den Vorurteil der Fischverbraucher in bezug auf die Eisscholle, welche heutzutage auf dem deutschen Fischmarkt verkauft wird.

**Willer A.** - Gleichartige Aufgaben der Binnen- und Küstenfischerei. – Dtsch. Fischwirt., III, 44, 739-741. Berlin (1936). **b - 1988**

Der Ausbau einer möglichst genauen Statistik, die Absatzfrage für Massenfische, die Erschliessung neuer Fanggründe, die Umstellung der Betriebe, die Förderung der hochwertigen Fische auf Kosten der minderwertigen und die Erhaltung des Fischers in seinem Beruf. (Nach Vf.).

**Fischereidirektion Cuxhaven** - Der Fischmarkt Cuxhaven im Jahre 1935. – 5 Tab., Dtsch. Fisch.-Rundschau, 10, 221-224. Bremerhaven (1936). **b - 1989**

Dem Bericht der Fischereidirektion Cuxhaven entnommene Ausführungen über Umsatz, Landungen, Versteigerungumsätze auf dem Fischmarkte Cuxhaven mit besonderer Berücksichtigung der Dampferhochseefischerei, der Schleppnetz-Heringsfischerei, der Hochseesegel- und Küstenfischerei, der Krabbenfischerei, des Fischgrosshandels und der Fischindustrie.

**Fischereidirektion der Vereinigten Märkte** - Die vereinigten Fischmärkte Altona und Hamburg im Jahre 1935. – 3 Tab., Dtsch. Fisch.-Rundschau, 10, 217-221. Bremerhaven (1936). **b - 1990**

Bericht der Fischereidirektion der vereinigten Fischmärkte Altona und Hamburg über den Verlauf ihrer Tätigkeit während 1935: Aktionsumsatz, Belieferung des Marktes, Durchschnittspreise, Preisbildung, Frischfischzufuhr, ausländische Einsendungen, usw.

**B. C. P.** - The World's Herring Markets. – Fish Trad. Gaz., LIV, 2774, 18. London (1936). **b - 1991**

Norway. Sweden. Iceland. Denmark. Holland. Poland. Belgium. Australia.

**E. K.** - Aufschwung auch am Fischmarkt Altona-Hamburg. Der Jahresbericht der Vereinigten Fischmärkte Altona und Hamburg für das Jahr 1935. – Dtsch. Fischwirt., III, 19, 297-298. Berlin (1936). **b - 1992**

Ursachen des Aufschwunges. Der gesamte Auktionsumsatz. Anlandungen. Preise. Einsendungen. Gesamtumsatz. Qualität der Ware.

**E. K. & S.** - Fachmännische Berufsausbildung des Fischhändler-Nachwuchses. – 1 Abb., Dtsch. Fischwirt., III, 10, 145-147. Berlin (1936). **b - 1993**

Bericht über die Abschlussprüfung in der Hamburger Fischhändler-Schule, welche vor Jahren aus der Iniziative des Hamburger Fischeinzelhandels geschaffen worden ist, und einige Betrachtungen über die Wichtigkeit einer fachmännischen Berufsausbildung des Fischhändler-Nachwuchses.

**F. T. G.** - Liverpool, its Fish Markets have Turnover of L. 1.000.000 per Annum yet Accomodation insufficient ? – Figs., Fish Trad. Gaz., LIV, 2775, 33, 35, 39, 41, 43-44. London (1936). **b - 1994**

Account of the present state in front of the proposal to transfer the markets to another site.

**F. T. G.** - B. T. F. Reorganisation Scheme & Sea-Fish Commission's Report. – Fish Trad. Gaz., LIV, 2776, 18-19. London (1936). **b - 1995**

The scheme concerns the regulation of the marketing of white Fish. The proposed development commission. The central Board Marketing powers suggested by B. T. F. On lines of Marketing Boards.

**Ps.** - Der ostpreussische Fischmarkt. – Dtsch. Fisch.-Rundschau, 15, 340. Bremerhaven (1936). **b - 1996**

Kurzer Bericht über den Zustand des preussischen Fischmarktes und über die in Ostpreussen verbrauchten Fischereierzeugnisse.

**S.** - Berlin - der grösste Fischmarkt des Binnenlandes. – Dtsch. Fischwirt., III, 9, 129-133; 10, 149-153. Berlin (1936). **b - 1997**

Ein Einblick in die Fischversorgung der Millionenstadt.

**An.** - Separate Fish from Friday. – Canad. Fisherm., XXIII, 1, 7-8. Gardenvale, Que. (1936). **b - 1998**

Author shows that the habit to eat fish only on Friday constitutes a real handicap of the fish industry, transforming it in a one-day-a-week business.

**An.** - Salt Fish Markets. – 1 photo, Canad. Fisherm., XXIII, 2, 20. Gardenvale, Que. (1936). **b - 1999**

Damage caused by embargoes placed against Canadian salt fish in the export markets of the world; paralyzing effect of Italy's action.

**An.** - Cuban Market for Dried and Salt Fish. – Canad. Fisherm., XXIII, 5, 25. Gardenvale, Que (1936). **b - 2000**

On hand of data issued in the Commercial Intelligence Journal it is shown that the Cuban market presents in 1936 improved conditions for the sale of dried and salt codfish and herring from Canada.

**An.** - To Increase Sale of Canadian Fish Government Launches Extensive Advertising Campaign. (In Engl. & French.). – 1 facs., Canad. Fisherm., XXIII, 9, 31-34. Gardenvale, Que (1936). **b - 2001**

Fish recipe books. General publicity. The wording of the advertisement.

**An.** - How to Cash in on the Fish Advertising Campaign. A few Suggestions for Retailers who want to Capitalize on the Money the Government is Spending for them. – Canad. Fisherm., XXIII, 9, 65-71. Gardenvale, Que (1936). **b - 2002**

**An.** - Die Belieferung des Winterhilfswerkes des Deutschen Volkes 1935-36 mit frischen Seefischen von Wesermünde aus. – 4 Tab., Dtsch. Fisch.-Rundschau, 10, 215-217. Bremerhaven (1936). **b - 2003**

Statistische Angaben über die Belieferung des Winterhilfswerkes mit frischen Seefischen, welche, im Gegensatz zum Vorjahre, ohne Rücksicht auf etwa milde Witterung mit einer gewissen Regelmässigkeit einging.

**An.** - Grosse Propaganda-Aktion für den Seefisch. – Dtsch. Fischwirt., III, 6, 81-82. Berlin (1936). **b - 2004**

Grundlinien der Organisation einer grossen Propaganda-Aktion für den Seefisch und einer eindringlichen Aufklärung über die Vorzüge und die ernährungswirtschaftliche Bedeutung der Fischkost zur Steigerung des Fischkonsums in Deutschland.

**An.** - Der grösste deutsche Fischereihafen berichtet über den Verlauf des Jahres 1935. Die Fischmärkte Wesermünde- Bremerhaven konnten ihren Aufstieg fortsetzen. – Dtsch. Fischwirt., III, 18, 276-277. Berlin (1936). **b - 2005**

Marktverhältnisse. Statistische Angaben über den Umsatz des Versandes. Errichtung einer neuen Auktionshalle.

**An.** - Günstige Entwicklung des Cuxhavener Fischmarktes. Der Jahresbericht 1935 beweist eine gesunde Aufwärtsentwicklung im gesamten Fischereigewerbe. – Dtsch. Fischwirt., III, 21, 338-339. Berlin (1936). **b - 2006**

Arbeit in Verbindung mit dem Winterhilfswerk. Gesamtumsatz. Ergebnisse der Schleppnetz-Heringsfischerei, der Krabbenfischerei. Handel und Industrie.

**An.** - Werbung, Werbung und nochmals Werbung. Einrichtungen, die dem Fischhändler bei der Werbung zur Seite stehen. – Dtsch. Fischwirt., III, 27, 431-432. Berlin (1936). **b - 2007**

Bericht des Propagandaausschusses des Fischmarktes zu Wesermünde-Bremerhaven über die geleistete Arbeit.

**An.** - Jahresbericht der Vereinigten Fischmärkte Altona und Hamburg für 1934 und 1935. – 5 Tab., Fischmarkt, III, 7, 179-180; IV, 6, 157-159. Cuxhaven (1935-1936). **b - 2008**

Statistische Angaben über den Umsatz der Fischmärkte, ihre Belieferung, die Durchschnittspreise, die Preisbildung, die Frischfischzufuhren, die Auslandseinsendungen usw.

**An.** - Der Fischmarkt Cuxhaven im Jahre 1935, – 5 Tab., Fischmarkt, IV, 6, 160-161. Cuxhaven (1936). **b - 2009**

**An.** - What the Bureau of Fisheries is doing to aid Consumers. – Fish & Oyst. Rep., XVII, 12, 3 & 7. Tampa, Fla. (1936). **b - 2010**

Demonstrations in fish cutting, cooking and canning; lecture in nutritive value, motion pictures showing phases of the commercial fishery, information on stocks and prices, etc.

**An.** - Round the World's Fish Markets. Shanghai. Nerve Centre of Chinese Fish Trade. – Fish Trad. Gaz., LIV, 2772, 24. London (1936). **b - 2011**

Modern fish market begun in 1934 now ready. Salted salmon and dry salt herrings the most important imports as shown in figures.

**An.** - The Indian Market for Fish. Britain's big Interests. – Fish Trad. Gaz., LIV, 2782, 27-28. London (1936). **b - 2012**

Statistical information on imports, principal markets.

**An.** - First Mackerel Swamp Market. – Fish. Gaz., LIII, 5, 7. New York (1936). **b - 2013**

Records referring to the probable abundance of fish in the ocean and to the probable rate of the single year classes of mackerel.

**An.** - Sea Food Institute Organized to promote greater Use of Fish. – Pacif. Fisherm., XXXIII, 3, 18. Seattle, Wash. (1935). **b - 2014**

The organization of the Fish and Sea Food Institute of U. S. A. was announced in February 1935. Its program. (See also ibid. 4, p. 16).

## *Piscationis fructuum vectura – Vectigalium regimen – Pretia et taxationes*

**Corbaley G. C.** - Food Prices Will Stay Up. – 1 photo, Fish. Gaz., LIII, 5, 8. New York (1936). **b - 2015**

Critical study of the price outlook of food products, indicating prosperous future ahead for fisheries.

**Dahms E.** - Wie wirkt die Tariferhöhung der Reichsbahn auf die deutsche Fischwirtschaft aus? – Dtsch. Fischwirt., III, 3, 35-36. Berlin (1936). **b - 2016**

Kritische Bemerkungen.

**De Angelis R.** - Manuale pratico sugli imballaggi e i trasporti del pesce. – fig., tab., 162 pp., Manuali Diana, Tip. Giannini & Giovannnelli. Firenze (1935). **b - 2017**

Nozioni generali di fisica in relazione alla conservazione dei prodotti ittici. Gli isolanti, la refrigerazione. I metodi di imballaggio in uso, i trasporti ferroviari e gli autotrasporti che sfruttano vagoni isotermici, vagoni refrigeranti e vagoni frigoriferi propriamente detti.

**Dewet J. P.** - Flying Fish in Western Ontario. – 1 fig., Canad. Fisherm., XXIII, 5, 13 & 28. Gardenvale, Que. (1936). **b - 2018**

Information of the use of the aircraft in transportation of fish in Western Ontario. The principal shippers.

**Ivlev V. S.** - Die Schutzwirkung von Adsorbenten bei den autotoxischen Prozessen der Fische im Transportwasser. – 8 Tab., Ztschr. f. Fisch., XXXIV, 1, 35-44. Neudamm & Berlin (1936). **b - 2019**

Bericht über einige mit verschiedenen Adsorbenten unternommene Versuche, wodurch die Lebensdauer der im Transportwasser befindlichen Fische mit vielen Prozenten gestiegen ist. Vergleich der verschiedenen Verfahren.

**Külper W.** - Statt der lebenden die geschlachtete Scholle in Eispackung. Die Büsumer Fischer treten gleichfalls für die Umstellung auf die geschlachtete Scholle ein. – Dtsch. Fischwirt., III, 12, 178-180. Berlin (1936). **b - 2020**

Unter Hinweisung auf den Artikel von Wiese (52 dieser Ztschr. 1935) über den Absatz der deutschen Eisscholle wird hier der Vorteil des Transportes von geschlachteten und in Eis gepackten Schollen besprochen.

**Manevich B. I. & Solovjev J. A.** - Opyt perevozki sbjedzei ryby. (In Russo). – Sovj. Arkt., 9, 107. Leningrad (1936). **b - 2021**

Sul problema del trasporto dei prodotti della pesca.

**Nickerson M. H.** - The Northern Airway. – Canad. Fisherm., XXI, 1, 11. Gardenvale, Que (1934). **b - 2022**

Some consideration chiefly concerned with quick inter-continental transit of shipment of live lobsters.

**Segerstråle C.** - Velocipeden i fisktransportens tjänst. (In Sved.). – Fiskeritidskr. f. Finl., XLIII, 5, 95-97. Helsinki (1936). **b - 2023**

L'idea dell'autore di trasportare i pesci con biciclette è già stata praticata, specialmente nell'istmo di Karelia, dove delle cassette contenenti circa 30-50 chilogrammi di pesce, sono state trasportate nei paesi circostanti. L'A. raccomanda questo mezzo di trasporto come effettivo, pratico, veloce e di poco prezzo.

**Stahmer M.** - Die Entwicklungstendenzen der deutschen Fischindustrie. – 1 Tab., Dtsch. Fischwirt., III, 2, 17-20. Berlin (1936). **b - 2024**

Interessante Ausführungen aus dem Vortrage des Generalsekretärs der Fachgruppe Fischindustrie von Altona am 17. Dezember 1935 in Berlin gehalten über die Lösung der Transportfrage als Voraussetzung des Aufschwungs in der deutschen Fischindustrie, die Notwendigkeit einer Produktionsrichtung für den Absatzmarkt und über die Gründe des erhöhten Interesses für Fischvollkonserven.

**Struve K.** - Gewichtsschwund beim Versand frischer Seefische. – Tab., Dtsch. Fischwirt., III, 25, 401-402. Berlin (1936). **b - 2025**

Bericht über Versuche den Gewichtsschwund beim Versand frischer Seefische festzustellen. Die Ergebnisse sind in Tabellen mit Angabe von Empfangsort, Versandtag, Fischart, Ein- und Auswage, Schwund und Transportdauer wiedergegeben.

**Tucker A.** - Let us Strive to Produce and Distribute Quality Products. – 1 phot., Fish. Gaz., LIII, 6, 7-8 & 14. New York (1936). **b - 2026**

Improve quality by following this valuable outline of improved and successful methods of packing and shipping fresh fish. (A.).

**Long Island Fisheries Protective Association** - How to care for, pack and crate Fish. – Fish & Oyst. Rep., XVII, 7; 13, 16. Tampa, Fla. (1936) **b - 2027**

**B. Sch.** - Versandstatistik der Reichsbahn gibt Einblick in den Verkehr mit Fischen. – 1 Tab., Dtsch. Fischwirt., III, 7, 102-104. Berlin (1936). **b - 2028**

Uebersicht über den Versand in den Jahren 1931-1934 der deutschen Seehäfen im Bezirk, nach anderen Bezirken und ins Ausland, welche es gestattet die Richtungen des Fischverkehrs in Deutschland festzustellen.

**E. B.** - Fische im Internationalen Zolltarifrahmenentwurf. – Dtsch. Fisch.-Rundschau, 5, 96-97. Bremerhaven (1936). **b - 2029**

Vf. unterrichtet über die Umgestaltung der Zollpolitik des Auslandes mittels einer Vereinfachung der Zolltarife und über ihre mögliche Auswirkung auf den deutschen Import- und Export-Fisch-Handel.

**An.** - Airplans Aid Alberta Fish Industry. – Canad. Fisherm., XXIII, 3, 13. Gardenvale, Que (1936). **b - 2030**

Brief account of the organization of commercial rapid fish transport by air to ensure its arrival on eastern market in fresh condition.

**An.** - Movements of Canadian Fish by Rail in 1935. – Canad. Fisherm., XXIII, 4, 9-10. Gardenvale, Que (1936). **b - 2031**

Some statistics showing that the analysis of shipment does not indicate any increase in domestic marketing of fish in Canada.

**An.** - Versandstatistik der Reichsbahn gibt keinen Einblick in den Verkehr mit Fischen. – Dtsch. Fisch.–Rundschau, 4, 73. Bremerhaven (1936). **b - 2032**

Eine Fortsetzung des Artikels « Fachleute an die Front » und Kommentar zu einem kürzlich an die Schriftleitung eingesandten Artikel, aus welchem es klar hervorkommt, dass die Statistiken der Reichsbahn keinen Einblick in die Fischwirtschaft geben können.

**An.** - Seefischerei und Zoll. – Dtsch. Fisch-Rundschau, 20, 458-460. Bremerhaven (1936) **b - 2033**

Auszug eines vom Oberregierungsrat Dr. Neitze gehaltenen Vortrages, in welchem die verschiedenen Zweige der deutschen Fischwirtschaft den Zollbeamten erklärt werden. Die Seefischereizollordnung. Sonstige Zollbestimmungen.

**An.** - The Fisheries develop a New Era in Package Merchandising. – Fish. Gaz., LIII, 11, 13, 28. New York (1936). **b - 2034**

Some statistical notes showing the increase of fresh and frozen packaged fish. Advantages of marketing the fish in fillet form.

**An.** - Invention sets new modern Standard for the packing of wet Fillets. Water- proof Paper Container fits in Box and Insulates. – Fish Trad. Gaz., LIII, 2746, 23. London (1936). **b - 2035**

Advantages. Striking contrast with past methods. Public demand stimulated. Air sealed: arrests deterioration.

**An.** - Efficient Delivery Service. – Fish Trad. Gaz., LIII, 2748, 18. London (1936). **b - 2036**

Description of a new, improved design of van pioneered by Morris Motors Ltd.

**An.** - Herring Propaganda in Norway. – Fish Trad. Gaz., LIV, 2767, 17. London (1936). **b - 2037**

Account of a national food propaganda exhibition in June 1936.

## INDUSTRIA ET COMMERCIUM FRUCTUUM PISCATUS DIVERSIS REGIONIBUS

### *Americae Provinciae Foederatae.*

**Bower W. T.** - Alaska Fishery and Fur-Seal Industries in 1935. – U. S. Dpt. Commerce, Bur. Fish., Adm. Rep. No. 23, 1-71. Washington (1936). **b - 2038**

Fishery industries: New regulations, culture of Japanese oysters, stream investigations, salmon, herring, halibut, cod, whales, clams, shrimp, crabs, trout investigations, miscellaneous fishery products. - Fur - seal industry: Pribilof Islands, general administrative work, equipment, seal investigations and operations.

**Clark G. H.** - The California Trawl Fishery and its Conservation. – 6 figs., 2 graphs, Calif. Fish & Game, XXII, 1, 13-26. Sacramento (1936). **b - 2039**

Regulation of the California trawl fishery. Savings gear. Results of savings mesh on commercial trawls. Conservation of the trawl fishery.

**Davis G. W.** - Commercial Fisheries of Florida. – Fish & Oyst. Rep., XVII, 1, 3, 10-11. Tampa, Fla. (1935). **b - 2040**

Report of the Supervisor of Conservation, concerned with the use made of the fish resources of Florida and the measures that may ensure their proper conservation.

**Fiedler R. H.** - Expansion of the Fisheries. – 3 figs., Fish. Gaz., LIII, 11, 10-11. New York (1936). **b - 2041**

Review of some of the significant developments which have contributed to the expansion of the American fisheries and hints to accomplish future expansion.

**Fiedler R. H.** - Fishery Industries of the United States 1935. – U. S. Dpt. Commerce, Bur. Fish., Adm. Rep. 24, 73-348. Washington (1936). **b - 2042**

Part 1. Operations of the Division: cooperation with other agencies, scientific, statistical and technological investigations, educational and consulting services, publications, etc. Part. 2. Fishery statistics 1934: general review, products, fisheries of different regions, etc.

**Roper D. C.** - Important Trends in the Fishing Industry. – 1 photo, Fish. Gaz., LIII, 4, 11. New York (1936). **b - 2043**

Important message of the Secretary of Commerce concerning the most important developments discernible on the horizon of the fishing industry of the United States in 1936.

**An.** - Sarasota's Commercial Fisheries Valued at $ 125,000. – Fish & Oyst. Rep., XVII, 1, 6-7. Tampa, Fla (1935). **b - 2044**

Reprinted from the « Sarasota Herald » and containing statistical statements on the history and development of Sarasota's commercial fisheries.

**An.** - The Fisheries, one of the World's Oldest Industries, are finding New Life. – Fish. Gaz., LIII, 12, 7-30. New York (1936). **b - 2045**

Some records showing a new era of prosperity for the fishing industry of U. S. A.

## *Britannia.*

**Heyer F.** - Der Sanierungsplan für die britische Schleppnetzfischerei. – Fischmarkt, IV, 5, 135-136. Cuxhaven (1936). **b - 2046**

Zusammenfassende Wiedergabe der in England getroffenen Massnahmen zur Sanierung der britischen Schleppnetzfischerei mit besonderer Berücksichtigung der Tätigkeit des Herring Board in Edinburgh und der Auswirkung des Herring Industry Act.

**Commissioner of Fisheries (B. C.).** - Fisheries Commissioner's Report for 1935. 3 figs., tabl., Rep. Commiss. Fish. for 1935, 1-86. Victoria, B. C. (1936). **b - 2047**

Value of fisheries and standing of province. Persons engaged and capital invested. Species and value of fish caught. Slight decrease in 1935. The canned-salmon pack and industry, other canneries. Fish oil and meal. Contributions to the life- history of the Sockeye salmon. The International Fisheries Commission's halibut investigation. Herring investigations. 12 Appendices on Salmon and Herring investigations, production of fish oil and meal, B. C. Salt-fish Board Report.

**Ministry of Agriculture and Fisheries** - Report on Sea Fisheries for the year 1935. – 2 figs., tabl., 90 pp. H. M. Stat. Off. London (1936). **b - 2048**

Review of the year's fishing. Fishermen and fishing vessels. Foreign trade. The Herring fisheries. The Sprat fishery. Scientific investigations. Shellfish. Proceedings under acts, conventions and international law. Inspection of trawling gear. Miscellaneous and local matters. Sea-Fishing Industry Act 1933. Whaling. 5 Appendices on Sea Fisheries districts, accounts of the local fisheries committees, summary of returns rendered by grantees of oyster and mussel fishery orders, areas of the Ministry's District Inspectors, addresses of the Ministry's Fisheries Research stations, scientific reports relating to fisheries published by the Ministry during 1935.

**An.** - Britain to Overhaul Fish Industry. – Canad. Fisherm., XXIII, 5, 9-10. Gardenvale, Que (1936). **b - 2049**

Brief account of the development of far-reaching importance to the fishing industry of Great Britain as forecasted in the recommendations of a Sea Fisheries Commission which has been investigating the whole range of the British fish trade from the catching to the marketing. Commenting of the Report issued by the Commission.

**An.** - Die Entwicklung der britischen Seefischwirtschaft. Die Fangflotte grösstenteils veraltet. Mangelhafte Einrichtungen in den Fischereihäfen. Verlangen nach Einfuhrkontingentierung. – Dtsch. Fischwirt., III, 23, 366-369. Berlin (1936). **b - 2050**

Wiedergabe des Berichtes der Sea Fishing Commission von 1933. Ertrag der britischen Weissfischerei. Anlandungen und Preise in Grossbritannien. Veränderungen des Standortes der britischen Fischindustrie und das Alter der Trawler. Struktur und Wandel des britischen Seefischhandels. Verschiebung der Transportverhältnisse. Vorschläge zur Besserung der allgemeinen Lage.

**An.** - Die britische Fischerei im Jahre 1935. – Fischmarkt, IV, 2, 53-54. Cuxhaven (1936). **b - 2051**

Einige Schlussfolgerungen aus den britischen Berichten über die Fischereiergebnisse betreffend die ersten 11 Monate des Jahres 1935.

**An.** - A Special Sketch of the Fortunes and the Misfortunes of the British Fisheries in 1936. – Fish Trad. Gaz., LIV, 2796, 15. London (1936). **b - 2052**

Landings have increased but values are lower. Industry on eve of vital reorganisation.

**An.** - Hull. A Year of Progress. Greatly increased Landings: 32 New Trawlers built. – Fish Trad. Gaz., LIV, 2796, 23. London (1936). **b - 2053**

End of the «Fleeters». L. 750.000 dock improvement scheme. Merchants welcomed embargo curtailment. Capturing Norway's Cod-liver oil trade.

## *Canadensis Regio*

**De Wet J. P.** - Lent Fish Sales in Winnipeg. – Canad. Fisherm., XXII, 4, 16-17. Gardenvale, Que (1936). **b - 2054**

Another statement of the competition of the crayfish from Africa with the production of the Canadian lobster fishery.

**An.** - Canadian Fish and Shell Fish. (In Engl. & French). – 2 pls., 1 fig., Canad. Fisherm., XXIII, 9, 39-47. Gardenvale, Que (1936). **b - 2055**

Alphabetical list of the principal varieties of fish and shellfish marketed by Canadian Fishermen with short description and indications of localities.

**An.** - Canadian Government to aid Sale of Sea Foods Suggested advertising Plans. – Fish Trad. Gaz., LIV, 2782, 39. London (1936). **b - 2056**

This article deals with British Columbian Salmon. Individual publicity. Fresh and frozen advertising.

## *Dania et Islandia.*

**Geriche G.** - Kein Niedergang des dänischen Fischexports. – Dtsch. Fischwirt., II, 34, 662-663. Berlin (1935). **b - 2057**

Aus dem Berichte des Direktors A. M. Vendsyssel über die Entwicklung des dänischen Fichhandels im Jahre 1934.

**Iversen Th.** - Sydostgrønland Jan Mayen. Fiskeriundersökelser. (In Norv.). – 112 fig., tav., 2 carte, Groenlandia merid. Jan Mayen. 171 pp., Fiskerid. Skr., Ser. Havunders. (Rep. Norw. Fish. & Mar. Invest., V, 1). Bergen (1936). **b - 2058**

Rapporto sulle ricerche condotte nelle acque artiche dal 1923. Groenlandia sudorientale: Profondità, correnti, ghiaccio, condizioni meteorologiche nel 1933, pesca, condizioni idrografiche presso la Groenlandia sudorientale e nello Stretto di Danimarca. Jan Mayen: Profondità, correnti, temperatura, ghiaccio, condizioni meteorologiche, stazioni idrografiche.

**Fiskeridirektoratet** - Fiskeri - Beretning for Aaret 1935 - heri Fiskeri-statistik fra Farøerne. (En dan.). – Nombr. tabl., I Kommission hos G. E. C. Gad. København (1936). **b - 2059**

I. Législation. II. Rendement de la pêche, personnel, espèces de poisson, différentes régions de pêche. III. Exportation, importation, industrie. IV. Mesures pour le développement de la pêche. V. Recherches scientifiques. Tableaux statistiques.

**An.** - Dänische Vorschriften für die Ausfuhr von Fischfilet. – Dtsch. Fisch.-Rundschau, 5, 97-98. Bremerhaven (1936). **b - 2060**

Deutsche Uebersetzung des Wortlautes der vom Dänischen Ministerium für Landwirtschaft und Fischerei erlassenen und bis zum 31. Dezember geltenden Bestimmungen über die Ein- und Ausfuhr von Fischen.

**An.** - Iceland's State-Aided Fishing Industry. Yearly Value of Catch is L. 1.500.000. – Fish Trad. Gaz., LIV, 2793, 19. London (1936). **b - 2061**

General state. Fresh fish for England. Danish Patrol Boats.

## *Gallia Coloniaeque.*

**Du Rin H.** - Historique de la pêche dunkerquoise à la morue sur les côtes d'Islande, sur le grand Banc de Terre-Neuve et dans les mers du Nord. – 498 pp., Publ. Soc. Dunk. pour l'encouragement Sc., Lettr. & Arts, I. Dunkerque (1936). **b - 2062**

Histoire du XIV siècle et développement de la pêche dunkerquoise. Armements, compagnes de pêche, l'importation de sel; l'importance des métiers liés à la pêche.

**Fage L.** - Les fonds et les ports de pêche de la côte française de la Méditerranée. – 21 fig., Mém. Off. Pêches Marit., Man. Pêches Marit. franç., 11, 3, 139-155. Paris (1936). **b - 2063**

Liste des espèces comestibles marines qui proviennent de la pêche littorale et les engins pour cette pêche. La pêche côtière et la pêche des poissons migrateurs (*Scomber scomber, Clupea pilchardus, Engraulis encrasicholus* et *Thynnus thynnus*).Statistiques du rendement de la pêche. Les vapeurs, les bateaux à moteur, les voiliers de pêche et les principaux ports.

**Le Danois E.** - Rapport sur le fonctionnement de l'Office Scientifique et Technique des Pêches maritimes pendant l'année 1935. – 4 fig. Rev. Trav. Off. Pêches Marit., IX, 1, 33, 9 36. Paris (1936). **b - 2064**

I. Croisière du navire océanographique « Président Tissier » au large des côtes de France dans le but d'examiner les eaux marines à l'entrée ouest de la Manche. II. Recherches hydrologiques et biologiques des Laboratoires de l'Office. III. Biologie ostréicole, conchylicole et contrôle sanitaire IV. Conseil International pour l'exploration de la Mer. Assemblée de la Commission pour l'Exploration de la Méditerranée. V. Economie Nationale de la pêche. Annexe: Avant–projet de décret sur la salubrité des coquillages et autres produits de la mer susceptibles d'être consommés crus.

**An.** - Der gegenwärtige Stand der Fischerei in Frankreich. – Fischmarkt, N. F., IV, 1, 15-17. Cuxhaven (1936). **b - 2065**

Aus dem Berichte von Le Gall im « Manuel des Pêches Maritimes Françaises » entnommene statistische Angaben über den gegenwärtigen Zustand der französischen Seefischerei.

## *Germania.*

**Eichelbaum E.** - Der Aussenhandel mit Fischen und Fischwaren. – 1 Tab., Dtsch. Fisch. - Rundschau, 4, 77-78. Bremerhaven (1936).
(—) Dtsch. Fischwirt., III, 7, 97-98. Berlin (1936). **b - 2066**

Statistik der Einfuhr von Fischen und Fischwaren im Jahre 1935, die Verteilung der Einfuhr aus verschiedenen Ländern, die Einfuhr an frischen Heringen und Sprotten, die deutsche Ausfuhr an Fischen und Fischwaren. Möglichkeit die Einfuhren durch eigene Produktion zu ersetzen.

**Eichelbaum E.** - Günstige Entwicklungsmöglichkeiten der Seefischerei. – 3 Tab., Dtsch. Fisch.-Rundschau, 9, 198-199. Bremerhaven (1936). **b - 2067**

An Hand statistischer Angaben zeigt Vf., dass auch im Jahre 1935 ein vermehrter Seefischabsatz in Deutschland beobachtet worden ist und dass es im allgemeinen gelungen ist, durch die deutsche Fischereiflotte einen von Jahr zu Jahr höheren Anteil an den Erträgnissen der Seefischerei für die Ernährung des deutschen Volkes zu gewinnen.

**Fischer L.** - Die deutsche Fischindustrie als Glied der Marktgemeinschaft. – Dtsch. Fischwirt., III, 43, 699-700. Berlin (1936). **b - 2068**

Planmässige Ausdehnung des Fischfanges, geordnete Andienung der Rohware, gesicherte Abnahme durch die verarbeitenden Betriebe, Ausbau der vorrats-wirtschaftlichen Möglichkeiten und nicht zuletzt eine starke Förderung des Absatzes durch Erschliessung neuer Absatzgebiete sind die wesentlichen Marktsteine, die den Weg zum geordneten Markt kennzeichnen (Vf.).

**Hartwig H.** - Ziel und Weg der Marktordnung in der Fischwirtschaft. Auch der Küsten- und Binnenfischerei soll geholfen werden. – Dtsch. Fischwirt., III, 45, 756-757. Berlin (1936). **b - 2069**

Erfassung der gesamten Anlandungen durch Auffang -und Sammelstellen; Erzeugerpreisschutz; planmässige Verteilung der Ware: Ausbau des Absatznetzes; zweckmässige Sortierung und Behandlung; Regelung der Einfuhr.

**Heinrici C.** - Seefischerei und Fischereiwissenschaft. – Dtsch. Fischwirt., III ,43, 702 & 705-706. Berlin (1936). **b - 2070**

Rückblick auf die Entwicklung der deutschen Seefischerei in den letzten 50 Jahre und die Gründe dieser Entwicklung: Fortschritte der Technik; Gesamtaufschwung der deutschen Volkswirtschaft vor dem Kriege und Kraftentfaltung im Dritten Reich; Aufsuchen entfernterer. Fangplätze, Verwertung des Fangs durch Organisation der Anlandung; wissenschaftliche Untersuchungen (Viktor Hensen); Gründung des Deutschen Seefischerei-Vereins und der Biologischen Anstalt auf Helgoland. Die Internationale Meeresforschung. Deutsche Wissenschaftliche Kommission für Meeresforschung u. a. Forschungsinstitute.

**Kinau R.** - Finkenwärder Gorch Fock sien Fischerinsel. (In Plattdeutsch). – Verlag C. Boysen Herausg. v. Landesbildstelle Hansa. Hamburg (1936). **b - 2071**

Geschichte der Fischerei der Finkenwärder, der Wiege der deutschen Hochseefischerei.

**Lundbeck J.** - Die deutsche Fischerei im Barentsmeer, bei der Bäreninsel und an der norweg. Küste in der Fangzeit 1935/36. – 4 graph. Fig., Tab., Dtsch. Fisch.-Rundschau, 20, 461-463; 21, 486-488. Bremerhaven (1936). **b - 2072**

Ergebnisse der Untersuchungen. Bedeutung für die Fischerei. Statistik der Anlandungen. Fangertrag und Fischbestand. Der Kabeljaubestand. Der Schellfischbestand. Die einzelnen Fangplätze. Vergleich der Erträge. Verjüngung der Fischbestände. Fangvoraussagen. Kaltwasser in der östlichen Barentsee. Die norwegische Küste.

**Peters H. W.** - Ausbau der ostpreussischen Fischindustrie. – Dtsch. Fisch.-Rundschau, 2, 28. Bremerhaven (1936). **b - 2073**

Erhebliche Belebung der ostpreussischen Seefischerei und die mit ihr verbundene Verringerung der Einfuhr ausländischer Fischkonserven.

**Stahmer M.** - Eine vorbildliche nationalsozialistische Gemeinschaftsarbeit. – Dtsch. Fisch.-Rundschau, 9, 189-193. Bremerhaven (1936). b - 2074

Kurzer Bericht über die Vorbedingungen der Gründung, der Ziele und der Tätigkeit der DEUKO (Deutsche Kontrollgesellschaft der an der Küstenfischerei interessierten Futtermittelwirtschaft GmbH), welche im Juni 1933 ihre Tätigkeit aufgenommen hat. Besprechung des Hiltner'schen Projektes, dessen Verwirklichung die neue Gesellschaft ist.

**Wichmann G.** - Die geographischen Grundlagen der Deutschen Hochseefischerei und ihre Entwicklung nach dem Weltkriege. – 3 Kart., Inaug. Dissert. Univ. Jena Gedr. b. Carl Beck. Eisfeld, Thür. (1935). b - 2075

Beschreibung der Verhältnisse bei den Hauptfanggebieten der deutschen Hochseefischerei: der Nordsee, dem Barentsmeer und den Gewässern um Island. Die Entwicklung der Fischindustrie. Hauptfangzeiten.

**Wiehr H.** - Die See- und Küstenfischerei im Reichsverband der Deutschen Fischerei. – Dtsch. Fischwirt., III, 44, 744-745. Berlin (1936). b - 2076

Ueber den vom 30. Oktober bis 2. November 1936 stattgefundenen Reichsfischereitag, wodurch eine berufsständige Einheitsorganisation der See- und Küstenfischer gebildet wird. Arbeitsprogramm: Verbesserung der Absatzverhältnisse der Produkte und der ökonomischen Stellung der Fischer; grundlegende Ueberholung der gesamten Fischerflotte; Herabsetzung der Zinsen der Darlehen; Vorschrift über die Motorenstärke und den Bau der Fahrzeuge; Regelung des Ausbildungswesens; Altersversorgung der Fischer. (S. auch ibid. 45, 760-762 über die Tagung, 48, 809-811).

**Reichs- und Preuss. Ministerium für Ernährung und Landwirtschaft** - Jahresbericht über die Deutsche Fischerei 1935. – Verl. Gebr. Mann. Berlin (1936). b - 2077

Allgemeiner Teil: I Die Seefischerei. Deutsche Produktion, die Fischerflotte, Ein- und Ausfuhr, einheimischer Verbrauch, der Fischereischutz, die allgemeine Wirtschaftslage, die Fischmärkte, der örtliche und zeitliche Verlauf der Hochseefischerei ausserhalb der Küstengewässer. Die wichtigsten Fischarten. Die Entwicklung der deutschen Fischwirtschaft von 1925 bis 1935. II. Die Binnenfischerei III. Aufgaben und Tätigkeit der Hauptvereinigung der Deutschen Fischwirtschaft. IV. Die Arbeiten der Deutschen wissenschaftlichen Kommission für Meeresforschung. Spezieller Teil: I. Die deutsche Hochseefischerei. II. Die grosse Heringsfischerei. III. Die Küstenfischerei und Kutter-Hochseefischerei. IV. Die deutsche Fischindustrie. V. Der Küstenseefischgrosshandel und der Fischhandel. VI. Reichsdarlehen und Beihilfen zur Förderung der deutschen Seefischerei. VII. Die Eisenbahntarife für Fische und Fisch-Erzeugnisse. VIII. Die Kassen zur Versicherung von Fischereifahrzeugen IX. Die wichtigste Fischereiliteratur aus dem Jahre 1935. X. Gesetze und Verordnungen.

**O. F.** - Der Fisch-Einzelhandel in Südwestdeutschland. – Dtsch. Fischwirt., III, 3, 33-35. Berlin (1936). b - 2078

Die wirtschaftlichen Voraussetzungen – Besonderheiten des Fischverbrauchs – Verhältnis zwischen Spezialhandel und Lebensmittelbranche.

**S.** - Zunehmende Einfuhr und rücklaufende Ausfuhr. – 4 Tab., Dtsch. Fischwirt., II, 5, 77-79. Berlin (1935). b - 2079

Ueberblick über den fischwirtschaftlichen Aussenhandel im Jahre 1934 mit besonderer Berücksichtigung der Notwendigkeit für Deutschland einer sorgfältigen Pflege des Auslandsabsatzes um verlorene Absatzgebiete wieder zu erwerben.

**An.** - Produktion der deutschen Fischindustrie weiter gestiegen. Neue Feststellungen des Statistischen Reichsamtes. – 4 Tab., Dtsch. Fischwirt., II, 49, 905-906. Berlin (1935). b - 2080

Der Zeitschrift « Wirtschaft und Statistik » entnommene Angaben, aus denen die Steigerung der Produktion der deutschen Fischindustrie klar hervorkommt.

**An.** - Die deutsche Seefischerei im Jahre 1934. – Tab., Fischmarkt, III, 7, 177-178. Cuxhaven (1935). b - 2081

Ein Teil der statistischen Angaben über das Ergebnis der deutschen Seefischerei, 1934, welche den Viertelsjahrheften zur Statistik des Deutschen Reiches (1935, I) entnommen sind.

**An.** - Die deutsche Seefischerei im Jahre 1935. – 3 Tab., Fischmarkt, IV, 6, 151-153. Cuxhaven (1936). b - 2082

Statistische Angaben, einer Uebersicht des Statistischen Reichsamtes entnommen.

## *Italia Coloniaeque.*

**Bini G.** - La pesca Oceanica e l'industria del pesce congelato. – 23 fig., Boll. Pesca, Piscicolt. & Idrobiol., XII, 4, 311-324. Roma (1936). b - 2083

L'A. illustra le varie manovre in uso per la pesca Oceanica e i sistemi di conservazione del pesce.

**Della Valle G.** - La pesca e le sanzioni. – Boll. Pesca, Piscicolt. & Idrobiol., XII, 6, 515–525. Roma (1936). b - 2084

Importanza della pesca oceanica e analisi dei problemi che essa comporta. Trasporti e mercati. La pesca nelle acque interne. Il consumo del pesce fresco e del pesce conservato.

**De Medici V.** - Agricoltura e pesca nell'Isola di Lagosta. – Giorn. Agric. della Dom., XLVI, 42, 349. Roma (1936). b - 2085

Dopo aver dato alcuni cenni storici sull'isola di Lagosta, l'A. riferisce sulla pesca effettuata sulle coste dell'isola e sulle possibilità di un razionale sfruttamento del mare di Lagosta.

**Mola P.** - Geografia sarda peschereccia. – Boll. Pesca, Piscicolt. & Idrobiol., XII, 3 168-188. Roma (1936). b - 2086

L'A. riferisce sugli stagni costieri sardi e sui loro caratteri fisico–climatici e biologici.

**Puglisi A.** - I nostri paesaggi e i nostri centri pescherecci. Cefalù. – Boll. Pesca, Piscicolt. & Idrobiol., XII, 4, 281-288. Roma (1936). b - 2087

Notizie storiche sulla città e notizie sulla pesca, organizzazione dei pescatori, naviglio e sistemi di pesca; le specie catturate e la vendita del prodotto.

**Veccia V.** - La pesca e le sanzioni. – 32 pp., Ente Naz. Fascista Coop., « Il lavoro fascista ». Roma (1936).

(—) Boll. Pesca, Piscicolt. & Idrobiol., XII, 6, 502-514. Roma (1936). b - 2088

Dati statistici sulla importazione di pesce fresco e conservato. L'industria del pesce salato. La pesca atlantica. Il pesce fresco e il pesce congelato. L'approvvigionamento del baccalà. Prodotti e sottoprodotti ittici. Il necessario sviluppo della piscicultura.

## Norvegia.

**Fiskeridirektøren** - Fiskeriene 1933. Offentlige foranstaltninger i fiskeribedriftens interesse. (In Norv.). – Årsber. v. Norg Fisk. 1933, 1, 1-61. Bergen (1936). **b - 2089**

La pesca nel 1933: rendimento della pesca delle aringhe, del merluzzo, del maccarello, del salmone, dei crostacei e delle anguille. Misure per favorire la pesca: pubblicazioni, istruzione e propaganda. Esportazione, vendita e imballaggio. Ispettori di pesca. Ricerche biologiche e oceanografiche nel periodo 1932–33. Il Consiglio internazionale delle ricerche sul mare.

**Fiskeridirektøren** - Lofotfisket 1936. (In Norv.). – 10 fig. 2 tav. f. t., 2 tav. n. t., Årsber. v. Norg. Fisk. 1936, 2, 1-143. Bergen (1936). **b - 2090**

Condizioni sanitarie. Il mercato del pesce. Le condizioni meteorologiche e la pesca. Il rendimento della pesca. Ricerche biologiche e oceanografiche.

**Fiskeridirektøren** - Norges Fiskerier 1934. (En norvégien, table d. matières en français). – Tabl., 47 + 17pp., Norges Off. Statistik, IX, 88. Oslo (1936). **b - 2091**

Aperçu de l'industrie de pêche en 1934: Personnel et matériel. Produit en quantité et valeur. Produit de chaque pêche (différentes espèces). La pêche norvégienne aux Bancs de Groenland occidental. Pêche par des étrangers débarqués en Norvège. Pêche de phoques et de baleines. L'exportation de produits des pêches. Revue statistique pour périodes étendues des pêches.

## Palestina.

**Department of Agriculture and Forests (Palestine)** - Report on Fisheries. – Tabl., Ann. Rep. Dpt. Agricult. & Forests for the Year end. March 1935, 185-192. Jerusalem (1936). **b - 2092**

General remarks on the Fisheries service. Statistical tables on fish caught and first selling price at different places 1934–35, boats and men engaged in fishing.

**Sender** - Increasing Herring Sales in Palestine. – Fish Trad. Gaz., LIII, 2753, 35. London (1936). **b - 2093**

Some remarks on the project of the Herring Industry Board to develop the market for herrings in Palestine.

## Sinensis Regio.

**Lin M. C. & Tai H. T.** - A Survey of the Fishery Industries of Wenchow Region, Chekiang, China. (In Chin., Engl. Rés.). – Figs., maps, tabl., Bull. Chekiang Prov. Fish. Exper. Stat., II, 8, 1-110. Tinghai (1936). **b - 2094**

Report for five districts: fishing apparatus used, nets, vessels, fishermen, catch (weight and value).

**Lin M. C. & Wu Y. C.** - A Survey of the Fishery Industries of Ningpo. (In Chin.; Engl. Summ.) 1 map, 4 figs., 2 tabl., Bull. Chekiang Prov. Fish. Exp. Stat., II, 2, 1-28. Tinghai (1936). **b - 2095**

Ningpo is the most important port as well as the commercial center of Chekiang. Statistical statements concerning the number of men and vessels engaged in the sea fisheries and the capital invested are also given in the paper.

**Lin S. Y.** - Fisheries of Tsien Tang Kiang. (In Chin., Engl. Summ.). – 1 map, 14 figs., 2 tables. Bull. Chekiang Prov. Fish. Exper. Stat., II, 3. 1-33. Tinghai (1936). **b - 2096**

Results of a general survey made by the A. from October to November, 1935, in order to make known as far as possible the natural resources and the present condition of the fisheries of the river. The marine and river species taken in Tsien Tang Kiang, the fishing areas and seasons, the forbidden pools, the fishing boats, gears, and methods, the life of fishermen, the fish trade, the wholesale markets, the taxes and fees, the conservation of the fish stock.

## U. R. S. S.

**Arnoljd I. N.** - Sur le problème de la rationalisation de l'industrie de la pêche dans le Nord de l'URSS. (En russe). – Sev. Promysl. Khoz., Sborn. Stat., 20-50, KOIZ. Leningrad-Moskva (1934). **b - 2097**

**Bähr O.** - Die russische Fischerei und Fischindustrie. – 7 Tab., Dtsch. Fisch.-Rundschau, 10, 225-227. Bremerhaven (1936). **b - 2098**

Wiedergabe eines aus norwegischer Quelle stammenden interessanten Berichtes über die russische Fischerei und Fischindustrie, mit besonderer Berücksichtigung der Ausbeute der Fischerei und des Robbenfanges, der Schleppnetzfischerei, der Heringsfischerei an der Murmansküste, der Krabbenfischerei an der Küste des Stillen Ozeans, der Fischkonservenindustrie, der Kälteindustrie, der Abfallindustrie und des Aussenhandels.

**Essipov V.** - Le poisson et la pêche sur l'Ile Kolgoujev. (En russe). – Fig., Tabl., Za Rybn. Sev., 10, 26-33. Leningrad (1935). **b - 2099**

**Joudanov I. G.** - La Baie de l'Obj et son importance pour l'industrie de la pêche (d'après les matériaux de l'Expédition de Jamal en 1932). (En russe). – Tabl., graph., Rab. Obsko-Tazovsk. Naoutchn. Rybo-Khoz. Stantz. (Trav. Stat. Scient. Econ. Pêche Obsko-Tazovsk), I, 4, 91 pp. Toboljsk (1935). **b - 2100**

**An.** - Results of Fishery on Novaya Zemlya in 1935. (In Russ. & Engl.). – Bull. Arct. Inst., V, 12, 435-463. Leningrad (1935). **b - 2101**

Statistical data and information concerning the development of codfish fisheries in the region of Novaja Zemlja.

**An.** - Fishery Developments in Russia. – Fishing News (8, II, 1935), 27-28. Aberdeen (1935). **b - 2102**

## Ceterae Nationes.

**Da Silva R.** - Notas sobre a pesca e os pescadores na Ilha Terceira. – 20 fig., Açoreana, I, 3, 147–158. Terceira (1936). **b - 2103**

Società peschereccie e trattamento dei pescatori. Attrezzi di pesca, battelli, principali specie di pesci catturate.

**Faouzi H.** - Rapport sur les Pêcheries d'Egypte en 1933. – Graph. fig., Dir. Rech. Pêch. 25-34; 40-52. Le Caire (1936). **b - 2104**

Pêches maritimes: Pêche côtière, chalutiers, sardines, quelques réflexions sur la migration des sardines, la saison sardinière, coup d'œil sur la pêche maritime. Eponges. Recherches et applications: Navires, laboratoire, bibliothèque. Commission internationale pour l'exploration scientifique de la Mer Méditerranée. Etablissements de pisciculture à Mex et aux Barrages. Animaux à signaler. Phoque-moine, thon rouge; transport d'alevins. Station de Mex, etc.

**Miezis V.** - Bulletin Statistique des Pêches maritimes de Lettonie. Année 1934. (En lett. & franç.). – Zemk. dep. zvejn. rakstu kraj., XIV, burtn., 1-84. Riga (1936). **b - 2105**

Tableaux statistiques des résultats des pêches maritimes en kilogr. 1930-1934. Pêche répartie par mois, par régions et valeur (1934). Pêcheurs bateaux et engins. Nombre des phoques tués en 1934. Quantité de l'engrais de mer acquis en 1934. La pêche de saumons, truites, flets, turbots, morues, harengs, esprots, éperlans. Pêcheurs noyés.

**Pardo L.** - El servicio piscicola en Chile. – Bol. Pesca y Caza, VIII, 1, 1-10. Madrid (1936). **b - 2106**

Organización central. Organización provincial. Personal y su formación. Centros consultivos e investigativos. Establecimientos piscicolas. Guarderia. Protección de la pesca. Sanciones. Procedimiento penal. Legislación. Estructuración de las Leyes vigentes. Usuarios profesionales y deportivos. Publicaciones oficiales. Estadistica. Comentario final.

**Pardo L.** - Algunos datos sobre la pesca en el delta del Ebro. – Bol. Pesca y Caza, VIII, 6, 17-19. Madrid (1936). **b - 2107**

Importante pesca. Los peces que predominan son la lisa, anguila y carpa. Fundacion de una Escuela de Piscicultura. Pesca del esturiòn. Protección.

**Silfverhjelm E.** - Fiskexporten under år 1935 (In Sved.). – Fisk.-tidskr. f. Finl., XLIII, 2, 28-31. Helsinki (1936). **b - 2108**

Uebersicht der Verhältnisse seit 1929; Exportabnehmer, Angaben in Mk.

**Sleen (van der) W. G. N.** - Fishing in Java. – Ills., The Nederl. Mail, 3, 171-174. (?) (1936). **b - 2109**

**W. B.** - Import und Zukunftaussichten der Fischwirtschaft in der Tschekoslowakei. – 2 Tab., Dtsch. Fisch.-Rundschau, 11, 246. Bremerhaven (1936). **b - 2110**

Zusammenstellende statistische Angaben über Einfuhr von frischen und verarbeiteten Fischen in die Tschekoslowakei und einige Ausführungen über die mögliche Entwicklung der Fischwirtschaft in diesem Lande.

**An.** - Marktregelung nun auch für die portugiesische Fischindustrie. – Dtsch. Fischwirt., III, 34, 539-540. Berlin (1936). **b - 2111**

Tätigkeit des portugiesischen Fischkonserveninstituts zu Lissabon; die neue Organisation der portugiesischen Fischwirtschaft stimmt mit den deutschen und den britischen Verordnungen überein.

**An.** - Wirtschaftliche Schwierigkeiten der niederländischen Küstenfischerei. – Dtsch. Fischwirt., III, 50, 844. Berlin (1936). **b - 2112**

Schlechter Zustand der Küstenfischereifahrzeuge Nötige Neuanschaffung von Netzen, Ersuchung einer Regierungskredit für die Fischer.

**An.** - Wie der polnischen Fischerei geholfen werden soll. – Dtsch. Fisch.-Rundschau, 3, 47-48. Bremerhaven (1936). **b - 2113**

Ausführliche Darstellung, die in der « Gazeta Handlowa » unter dem Titel « Ein Produktionsgebiet, das noch in den Kinderschuhen steckt » erschienen ist, und wirtschaftspolitische Probleme in Bezug auf die Förderung und Entwicklung der polnischen Seefischerei erörtert.

**An.** - Argentina as a Market for British Fish. A Survey of the Country's Fishing Industry and its Imports, I, II. – Fish Trad. Gaz., LIV, 2778, 36-37; 2780, 39 & 41. London (1936). **b - 2114**

Fishing is carried on along the whole Atlantic coast but is not organised. Gulf Stream conditions. Imports. The trade in oysters. Canned and smoked fish.

## SUBPRODUCTI FRUCTUUM PISCATIONIS

### *Residua et reiectanea – Farina ichthyca. Collae.*

**Berry M. H. & Manning J. R.** - Comparison of the Feeding Value of Steam dried and Flame dried Menhaden Fish Meal. – 3 tabl., Fish & Oyst. Rep., XVIII, 1, 8 & 12. Tampa, Fla (1936). (—) Journ. Dairy Sc., XIX, 10, 663-669. Baltimore (1936). **b - 2115**

No considerable difference found with respect to gains, weight and palatability.

**Bickel E.** - Eine noch zu wenig erschlossene Möglichkeit zur Verwertung von Fischabfällen. – Dtsch. Fischwirt., III, 5, 66-68. Berlin (1936). **b - 2116**

Einige Betrachtungen über die Möglichkeit Fischabfälle ohne vorherige technische oder chemische Behandlung nützbar zu machen, nämlich durch Verfütterung in der Pelztierzucht. Ein Beispiel bietet die Peltztierzucht Norwegens dar.

**Boselli A.** - L'utilizzazione dei residui della pesca e sua importanza nell'economia nazionale. – 3 fig., Ind. It. Freddo, 10, 146-150. Milano (1936). **b - 2117**

L'A. prospetta il problema della costruzione di impianti moderni per l'utilizzazione dei residui di pesce, con i quali sia possibile estrarre tutti i grassi ed olii, nonchè farine secche e sgrassate. Tali impianti, da costruirsi sia in Italia, sia nelle Colonie, sia a bordo di navi da grande pesca, consentiranno di ottenere prodotti di alto valore fino ad ora importati dall'estero.

**Boury M.** - Les sous-produits. – 2 figs., Mém. Off. Pêches Marit., 12, Man. Pêches Marit. franç., 4, 54-64. Paris (1936). **b - 2118**

Les chalutiers équipés pour la fabrication de la farine du poisson. Les usines de Fécamp, Concarneau, La Rochelle fabriquant régulièrement une certaine quantité de farine alimentaire. Le traitement des poissons gras et des poissons maigres. Les engrais de poisson. La préparation à bord et à terre des huiles. Les colles.

**Brenner M. L.** - Low Temperature Drying of Sardine Meal is highly successful. – 2 figs., Pacif. Fisherm., XXXIII, 5, 63-64. Seattle, Wash. (1935). **b - 2119**

Description of a new fish meal dryer installed in the Monterey plant. Dryer gases burned. Instrument control employed. Excellent results obtained.

**Carter N. M.** - Ambergris-and How to Identify it. – Canad. Fisherm., XXIII, 3, 18. Gardenvale, Que. (1936). **b - 2120**

The origin of ambergris, its relative rarety and some methods of its identification.

**Centola G.** - Struttura e proprietà del « bisso » o seta di ostriche. – 3 fig., Gazz. Chim. It., LXVI, 2, 71-80. Roma (1936). **b - 2121**

Lo studio della struttura del bisso porta a concludere che esso è costituito da un miscuglio di ammino-acidi complessi (tipo cheratina) e di amminoacidi semplici (tipo fibroina della seta) e ciò è in accordo col risultato dell'indagine chimica. Il bisso è l'unica fibra naturale nella quale le molecole non hanno nessun orientamento. Considerazioni circa un parallelismo esistente tra il grado di orientamento delle molecole e le proprietà fisiche delle fibre tessili.

**Hiltner P.** - Ein wichtiges deutsches Forschungsergebnis: Trocken-Eiweiss aus Seefischen. – Dtsch. Fisch. -Rundschau, 1, 1-3. Bremerhaven (1936). **b - 2122**

Kurzer Bericht über die Entdeckung eines Verfahrens zur Fabrikation von Trocken-Eiweiss aus Seefischen, welches ein Beitrag zur Deckung des Eiweissbedarfs im Inlande darstellt, mit besonderer Berücksichtigung der von Prof. Abderhalden auf diesem Gebiete durchgeführten Arbeit. Bedeutung der Erfindung für die deutsche Seefischerei.

**Johnston A.** - Note on Analyses of Meal made from Labrador dried Codfish. – Rep. Newfoundl. Fish. Res. Lab. 1935, Div. Fish. Res. Dpt., Natur. Resources, Newfoundland, II, 5. 46. Cardiff (1936). **b - 2123**

Examination of material treated in three different ways. Percentage of ash, salt and albuminoids. Prescriptions in order to avoid spoilage.

**Kawakami T.** - On the Hygroscopicity of Fishmeal. I. (In Jap.; Engl. Summ.). – 4 figs., 3 tables, Bull. Jap. Soc. Scient. Fish., V, 1, 51-55. Tokyo (1936). **b - 2124**

Measurements of the increment of the weight of sardine, white and salmon meal previously completely dried in an oven and than exposed to constant humidities at constant temperature (20° C) and wetted to saturation.

**Manning J. R.** - Relation of the Fishery Industries as a Source of Raw Material in the Manufacture of Dog Foods. – Fish & Oyst. Rep., XV, 9, 8-9. Tampa, Fla. (1934). **b - 2125**

Special report prepared by the Chief Technologist of the U. S. Bureau of Fisheries for the National Recovery Administration.

**Ôya T. & Takei T.** - On the Manufacturing Process of the Sardine Fish Meal. (In Jap., Engl. Rés.). – 3 figs., 2 tabl., Bull. Jap. Soc. Scient. Fish., V, 3, 199-201. Tokyo (1936). **b - 2126**

Description of the process.

**Pottinger S. R., Harrison R. W. & Anderson A. W.** - Effect of Method of Manufacture on the Composition of Haddock Fish-Meal Proteins. – 1 fig., 7 tabls., U. S. Dpt. Comm., Bur. Fish. II, Invest. Rep. 31, 1-14. Washington D. C. (1935). **b - 2127**

The investigation has shown that there are three general conditions encountered in the manufacture on nonoily fish-meal which have effect on the composition of their proteins: the difference in the proportion of head and backbone water, the removal of water-soluble protein material by the wet process, and the method of drying.

**Schulze M.** - Fischerei und Landwirtschaft verbindet die Fischmehlwirtschaft. – 5 Tabl., Dtsch. Fischwirt., III, 4, 49-51. Berlin (1936). **b - 2128**

Entwicklungsgeschichte der deutschen Fischmehlwirtschaft: Beziehung zur deutschen Fischwirtschaft. Fischmehlbedarf- und -verwendung. Technik der Fischmehlherstellung. Die Möglichkeit einer Produktionssteigerung.

**Tjötta L. L.** - Sterilisierte Fischpasten. – Dtsch. Fischwirt., III, 1, 7-9. Berlin (1936). **b - 2129**

Kurzer Bericht über die Vorbereitung von Taschenkrebspaste in Norwegen und von sterilisiertem Dosenlachs in England, sowie über die im Institut für Seefischerei ausgeführten Versuche um haltbare Fischpasten festzustellen die sich insbesonder den deutschen Verhältnissen anpassen.

**M. E. F.** - Prodotti marini. – Universo (Ist. Geogr. Milit.), XVII, 6, 445-446. Firenze (1936). **b - 2130**

Come deve orientarsi lo sfruttamento dei prodotti del mare; la produzione del cuoio, che si può ricavare dai pescecani e dai delfini, l'utilizzazione dei ricci di mare, l'estrazione dello jodio dalle alghe marine.

**An.** - Prices of Fish Livers Increase Yearly. – Canad. Fisherm., XXIII, 3, 21. Gardenvale, Que. (1936). **b - 2131**

The present Note points out that even in the year 1936 the price of halibut livers has taken another jump in comparison with the previous year.

**An.** - New Process of Fish Reduction Developed in B. C. – Canad. Fisherm., XXIII, 4, 27-28. Gardenvale Que. (1936). **b - 2132**

Brief account of a new development in fish reduction and its possible effect on industry, which has been discussed by British Columbia experts. The invention is said to reduce all types of marine life to oil and meal without waste of damage by chemical change.

**An.** - Fischmehlknappheit – trotzdem Vergeudung wertvoller Rohstoffe. – Dtsch. Fisch. –Rundschau, 15, 335-336. Bremerhaven (1936). **b - 2133**

Betrachtungen über die Möglichkeit Fischmehlzufuhren aus dem Auslande einzuschränken und trotzdem der deutschen Landwirtschaft im ausreichenden Masse ein hochwertiges Futtermittel zur Verfügung zu stellen.

**An.** - Die Verwertung von Fischabfällen zur Fischleimbereitung. – Fischmarkt, IV, 12, 331-332. Cuxhaven (1936). **b - 2134**

Bericht über einige in Kanada angestellten Versuche zur Herstellung von Fischleim, welcher ganz geruchlos ist.

**An.** - Bureau to make Fish Meal from Spawned Salmon for Hatchery Feed. – Pacif. Fisherm., XXXIII, 9, 52. Seattle, Wash. (1935). **b - 2135**

Short note on the small plant at Quilcene, Wash.

**An.** - The Perfect Protein. Fish Meal stands alone in its Advantages for the Feeding of Domestic Animals. – 2 tables. Pacif. Fisherm., XXXIII, 9, 65-66. Seattle, Wash. (1935). **b - 2136**

Special advantages. Expanding recognition. Value of fish meal produced in U. S. A. 1934 (statistical table). Fish meal's benefits. Lower cost. Pacific coast production of fish meal in tons 1922-1934. Feeding of livestock.

**An.** - Fish Meal Specialties. – Pacif. Fisherm., XXXIII, 9, 73. Seattle, Wash. (1935). **b - 2137**

Fish flour. Value of fish meal produced in U. S. A. 1930 to 1934. Other special products.

**An.** - Characteristics of Pacific Fish Meals. – Pacif. Fisherm., XXXIII, 9, 80. Seattle, Wash. (1936). **b - 2138**

Sardine meal. Pilchard meal. Herring meal. Salmon meals. Chemical analyses.

## *Olea animalium marinorum. – Vitaminae et earum valor.*

**Blix G., Rydin H. & Englund G.** - Om förekomst av D – vitamin i strömming. (In Swed., Engl. Summ.). – Uppsala Läkareför. Förhandl., XL, 1/2, 175-182. Uppsala (1934). **b - 2139**

The investigations have shown the presence of the vitamin D in the oil of the Baltic herring (about 200 I. U. per gm.) equal to that of good cod liver oil.

**Brogi G.** - Le vitamine A e D nell'olio di tonno. – 4 fig., 5 graf., Clin. Pediat., XVIII, 9, 531-571. Modena (1936). **b - 2140**

L'A. mette in evidenza l'azione eritroformativa ed antirachitica esplicata dall'olio di tonno anche se somministrato parenteralmente. I metodi di ricerca hanno dimostrato sicuramente la presenza della vitamina A nell'olio di tonno ed hanno anche permesso un dosaggio della vitamina antixeroftalmica.

**Charnley F.** - Calculations in the Investigation of Oils and Fats with Special Reference to Fish Oils. Part II. – Journ. Biol. Bd. Canada, II, 3, 285-297. Toronto (1936). **b - 2141**

Equations for the relation between the weight and saponification equivalent of a mixture of hydrogenated esters and those of the original mixture: the relation between the weight and iodine value of a mixture of esters and of the original esters and for thiocyanogen values. In the case of simple mixtures these equations afford a means of testing the truth of the assumptions underlying the thiocyanogen method of analysis. An illustration of the method of dealing with analysis involving redundant data has been also given (from A:s summ.).

**Denstedt O. F. & Brocklesby H. N.** - Fish Oils. The Structure and Properties of Pilchard Oil Films. – Tabl., 9 fig., Journ. Biol. Bd Canada, II, 1, 13-40. Toronto (1936). **b - 2142**

The main object of this study was to find methods of correcting certain defects which are common to films of all drying oils but are especially pronounced in drying fish oils. These defects and methods for correcting them are described here. (From A.).

**Granit R.** - Förekomsten av D – vitamin i strömming. – Finl. Röda Kors, 9. Helsinki (1935). (—) Fiskeritidskr. Finl., I, 9-11. Helsinki (1936). **b - 2143**

5 mg. of the oil extracted from fresh *Clupea sprattus* has proved to have a corresponding value of 1 mg. of the international standard oil.

**Hampton W. F.** - Note on the Amount of « Stearine » separating from Cod Liver Oil at 0° and-5 C. – Rep. Newfoundl. Fish. Res. Lab. 1935, Div. Fish. Res. Dpt. Natur. Resources, Newfoundland, II, 5, 48. Cardiff (1936). **b - 2144**

Report on work done at Torry Research Station, Aberdeen showing that the amount increases at the rate of about 5 % per degree lowering of temperature.

**Higasi H.** - Vitamin A Content of Oyster Oil, and the Isolation of a Special Sterol from its Sterol Fraction. (In Jap., Engl. Rés.). – 6 figs., tabl., Journ. Imp. Fish. Exp. Stat., XII, 209-231. Tokyo (1936). **b - 2145**

The vitamin A content of Japanese oysters here studied for the first time was found to be about 1/10 to 1/30 of that of average cod liver oil. General properties of oyster oils and of the isolated sterol (magakisterol).

**Ker S.** - Emploi des huiles d'animaux marins dans l'industrie. – Bull. Soc. Amis Inst. Océanogr. du Havre, XVII, 50, 4-6. Le Havre (1935). **b - 2146**

Récension d'une étude par M. Henri Marcelet apparue dans la Revue de Chimie industrielle et dans le Moniteur Scientifique Quesneville. L'A. se relève surtout contre la mauvaise réputation des huiles de poisson dans le public, due à l'erreur d'une fausse dénomination. Les huiles et graisses d'animaux marins dans l'économie domestique.

**Marcelet H.** - L'huile du *Scyllium stellare* CBp. – Bull. Inst. Océanogr., 704, 1-11. Monaco (1936). **b - 2147**

Résultats des déterminations physiques et chimiques effectuées sur *S. stellare,* dont l'A. a prélevé le foie et extrait l'huile.

**Salvioli G.** - Note e rimarchi sull'olio di tonno per uso medicinale. – 2 fig., Min. Med., I, 2, 417-419. Torino (1936). **b - 2148**

**Scheffen W.** - Die schwimmende Tranfabrik. – 2 Abb., Natur u. Volk, LXVI, 2, 68-71. Frankfurt a. M. (1936). **b - 2149**

Beschreibung des grossen Trandampfers « Kosmos II » aus Sandefjord in Südnorwegen.

**Supplee W. C.** - Menhaden Oil as An Antirachitic Supplement for Poultry. – 2 tabl., Fish & Oyst. Rep., XVII, 6, 2 & 19. Tampa, Fla. (1936). **b - 2150**

**Wagner D.** - Studio sulle conserve portoghesi di sardine. – Ind. It. Conserve Aliment., 27-31, XI, 2. Parma (1936). **b - 2151**

Variazione sullo stato d'ingrassamento delle sardine nel 1934. Studio sull'olio di sardine in relazione all'olio impiegato nella conservazione. Critica alla comunicazione « Olio e conserve di pesce » presentata dal proff. Ch. Lapierre e A. de Carvalbo all'XI Congresso di Chimica Industriale.

**F. T. G. Staff Representative** - Medina Refinery Ltd., Deptford London. A Story of the Purification and Deodorisation of Edible Oils. – 2 figs., Fish Trad. Gaz., LIV, 2771, 54-55. London (1936). **b - 2152**

Description of the factory and the work.

**An.** - Larger Market for Fish Oils as Result of Vitamin Studies. – 1 fig., Fish. Gaz., LII, 3, 15-16. New York (1935). **b - 2153**

Author illustrates the potential market for fish oils in agricultural field and the results of researches showing that the supply of vitamins is essential to the proper nutrition of both men and animals, which has influenced the demand for vitamins contained in fish oils.

**An.** - Vitamins from the Vikings. – 2 photos, Fish. Gaz., LIII, 4, 13. New York (1936). **b - 2154**

Development of the cod liver oils industry in Norway, where the ancient vikings first discovered the tonic value of this oils; scientific progress in its production which came with the years.

**An.** - Vitamin Oil Extraction Method is described by Canadian Scientists. – Pacif. Fisherm., XXXIII, 3, 55; 4, 55. Seattle, Wash. (1935). **b - 2155**

Two promising methods of H. N. Brocklesby and R. Green of the Fisheries Experimental Station of Prince Rupert, B. C.

**An.** - Fish Oils in Industry. – Pacif. Fisherm., XXXIII, 9, 67-68. Seattle, Wash. (1935). **b - 2156**

Soap. Paint and varnish. Industrial utilization of fish oils in U. S. A. Linoleum. Leather manufacture. Miscellaneous industry. Edible compounds.

**An.** - Vitamins. Medicinal Values of Pacific Fish Oils contribute to Human Nutrition and Health. – Pacif. Fisherm., XXXIII, 9, 69. Seattle, Wash. (1935). **b - 2157**

Halibut liver oil. Sable and ling. Tuna liver oil. Salmon liver oil. « Thalastol ». Production methods.

**An.** - Vitamin Oils in Animal Nutrition. – Diagr., Pacif. Fisherm., XXXIII, 9, 76-77. Seattle, Wash. (1935). **b - 2158**

Strictly commercial Pacific coast oils are not at present recognized as of value for animal feeding, while the medicinal oils are too valutable to be employed for this purpose. However, by observing certain known principles of selection and technique, scientists and manufacturers have found that it is possible to prepare semi-commercial Pacific fish oils of great vitamin value notably from sardines and pilchards. Studies and experiments. Manufacture. (From. A.).

**An.** - Fish Oils in Fruit Spray. – Pacif. Fisherm., XXXIII, 9, 81-82. Seattle, Wash. (1935) **b - 2159**

Research work begun in 1927. Actual use of fish oil in apple spraying in the Pacific Northwest.

**An.** - Vitamin-seeking Scientists find rich Reserve in Pacific Fish Oils. – Pacif. Fisherm., Yearbook 1935, 213. Seattle, Wash. (1935). **b - 2160**

Increasing use of Pacific Fish Oils for human medicinal and edible purposes. Price of livers advances sharply: Special Salmons oils. Canning oils made. Bureau of Fisheries Research program.

# CONSERVATIO

## *Bacteriologia – Hygiene – Alteratio.*

**Bähr O.** - Zur Qualitätsbeurteilung von Fischerzeugnissen. Auch die Erfahrungen in anderen Ländern geben Fingerzeige. – Dtsch. Fischwirt., III, 11, 162-164. Berlin (1936). **b - 2161**

Durch Anordnungen der Hauptvereinigung der Deutschen Fischwirtschaft ist wieder die Qualitätsware zu ihrem Recht gekommen. Praktische Vorschläge zur Hebung und Sicherung der Qualität: Hinweisung auf Artikel und Erfahrungen in Norwegen, Japan, Portugal, Spanien, Amerika und Canada. Notwendigkeit einer Kontrolle der Qualität der Fisch-Voll-und Halbkonserven.

**Beatty S. A. & Gibbons N. E.** - The Measurement of Spoilage in Fish. – 5 figs., 5 tabl., Journ. Biol. Bd. Canada, III, 1, 77-91. Toronto (1936). **b - 2162**

Volatile bases can be used as a measure of spoilage for cod only if the original value of the fish in question is known. A method has been developed which fractionates the volatile bases into two parts, one consisting of ammonia and possibly a very small amount of monomethylamine, and the other consisting of all the other volatile bases in the fish muscle .The method has been proved to measure the degree of spoilage accurately in fish preserved with borates as well as in untreated fish (From A:s summ.).

**Bedford R. H.** - Care of Halibut aboard Ship. Hints on Handling, Gutting, Stowing and Icing, how to get best Results. – Fish. News, 24-25. Aberdeen (1936). **b - 2163**

**Bongert J.** - Kampf dem Verderb. Ueber die Ursachen und die Bekämpfung der Qualitätsminderung bei Fischen und Fischwaren. Wissenschaftliche Forschungsergebnisse von praktischer Bedeutung. – Dtsch. Fischwirt., III, 19, 295-296; 22, 347-348. Berlin (1936). **b - 2164**

Näheres über die bei den Fischen auftretenden Fäulnisbakterien, Aufklärung über frühere Missverständnisse in Bezug auf ihre Natur. Vorschriften um eine möglichst lange Frisch- und Qualitätserhaltung der Fluss-und Seefische.

**Boury M.** - Recherches sur l'altération du Poisson (Deuxième Rapport). – Rev. Trav. Off. Pêches Marit., IX, 4, 36, 402-420. Paris (1936). **b - 2165**

Procédés d'analyse du poisson frais: macération, dosage de l'azote basique volatil, dosage de l'eau dans la chair. Stabilisation des échantillons: description des expériences. Caractères chimiques de fraicheur. Les phénomènes d'altération du poisson conservé en glace sont semblables à ceux qui furent établis pour le poisson gardé sans glace.

**Dodgson R. W.** - Shellfish and the Public Health. – Brit. Med. Journ., II, 169. London (1936). **b - 2166**

**Fischer E.** - Die Anwendung neuerer Forschungen auf die Qualitätserhaltung der Seefische. – Dtsch. Fischwirt., III, 16, 241-245. Berlin (1936). **b - 2167**

Vortrag gehalten auf der Mitgliederversammlung des Deutschen Seefischerei-Vereins. Neue Auffassung von der Fischzersetzung. Charakteristik der eiweisslösenden Fischbakterien. Wege diese Bakterien zu bekämpfen: in erster Linie mit Kälte. Verschiedene Kühlverfahren.

**Fisher L. M. & Acker J. E.** - Bacteriological Examinations of Oysters and Water from Narragansett Bay during the Winter and Spring of 1927-28. – 6 figs., U. S. Publ. Health Repts., L, 42, 1449-1475. Georgetown (1935).

( — ) Sewage Works Journ., VII, 4, 727-741. Easton Pa., (1935). **b - 2168**

The quality of the water in Narragansett Bay is better in winter and early spring than in the late fall; and consequently there follows a marked improvement in the quality of oysters. (From A:s rés.).

**Gibbons N. E.** - Studies on Salt Fish. 1. Bacteria associated with the Reddening of Salt Fish. – 1 table, Journ. Biol. Bd. Canada, III, 1, 70-76. Toronto (1936). **b - 2169**

A study has been made of thirty strains of red halophilic organisms from reddened fish, salt and the timbers of salt fish plants. Eleven were cocci and belong to the species *Sarcina litoralis* and *Sarcina* sp. of Lochhead. The rod forms are of five types. Three resemble *Bact. trapanicum* Petter, *Serratia salinaria* and *S. cutirubra* Lochhead. The others do not resemble any of the described species. Of thirty samples of salt, reddening organisms were found in twenty, seven of which were mined or evaporated salts (A.)

**Kimata M.** - Effect of Halogen Ions upon the Growth Rate of Bacteria and on the Decomposition of Fish Muscle. – 3 tabl., Bull. Jap. Soc. Scient. Fish., II, 5, 291-296. Tokyo (1936). **b - 2170**

Studies upon the effect of Na F, Na J, Na Br and Na Cl. The inhibitory action od halogen ions is F > J > Br > Cl.

**Kimata M.** - The Rates of the Decomposition of Fish Muscle by various Kinds of Bacteria. – 5 figs., Bull. Jap. Soc. Scient. Fish., V, 2, 77-79. Tokyo (1936). **b - 2171**

This study deals especially with such water *Bacteria* as are particularly concerned with the fish-muscle decomposition. Results: The rate of the decomposition of the fish muscle; the rate of the growth of *Bacteria*; relation of the velocity of the decomposition of fish muscle and the velocity of the growth rate of *Bacteria*; relation of the velocity of the decomposition of fish muscle and the final amount of *Bacteria*.

**Kimata M.** - Effects of Carbohydrates upon the Rates of the Decomposition of Fish Muscle by *Bacteria*. – 4 figs., Bull. Jap. Soc. Scient. Fish., V, 4, 219-223. Tokyo (1936). **b - 2172**

This effect varies with the kinds of Bacteria and those of Carbohydrates and the rate of bacterial decomposition is seldom increased but mostly decreased with a following bacterial fermentation of carbohydrates of the media. The inhibiting action of the carbohydrates is probably due to the change of pH and of total acidity as well as to production of acids and other fermenting materials.

**Krempf A.** - La conservation et l'utilisation des produits de la pêche sous les tropiques. – Inst. Océanogr. Indochine (Commun. 5e Congrès Pacifique Vancouver 1933) 29, 31-37. Saïgon (1936). **b - 2173**

La conservation par la glace ou la frigorification et celle par la salaison présente des difficultés insurmontables; résultats encourageants obtenus par le poisson soumis à l'action de la chaleur et de l'agitation mécanique; richesse alimentaire de ce produit.

**Lambert L.** - Le contrôle sanitaire coquillier. – 7 fig., Mém. Off. Pêches Marit., 12, Man. Pêches Marit. franç., 4, 148-170. Paris (1936). **b - 2174**

Les décrets du Décembre 1915, du Mars 1919 et Juillet 1923 sur le contrôle sanitaire obligatoire. Enquêtes et analyses par les Laboratoires du Contrôle Sanitaire; le contrôle des Moules et des coquillages; l'organisation actuelle du Service du Côntrole Sanitaire.

**Laurinat K.** - Erfahrungen mit der Prüfung und Stempelung der Salzheringe. – Dtsch. Fischwirt., III, 13, 196-199. Berlin (1936). **b - 2175**

Prüfung bezüglich gewisse Gütebedingungen, Verpackungs- und Kennzeichnungsvorschriften sowie Mindestgüte um eine Qualitätssicherung und Hebung des deutschen Erzeugnisses zu befördern. Folgen dieser Prüfung. Statistische Angaben geprüfter Heringe.

**Lücke F. & Geidel W.** - Bestimmung des flüchtigen basischen Stickstoffs in Fischen als Massstab für ihren Frischezustand. – 9 Abb., zahlr. Tab., Ztschr. Unters. Lebensmittel, LXX, 6, 441-458. Berlin (1935). **b - 2176**

Vorteil dieser Methode im Vergleich mit anderen hier beschriebenen Methoden. Anfangsgehalt und Verteilung des flüchtigen basischen Stickstoffes für jeden einzelnen Fisch. Festlegung eines Grenzwertes für die Haltbarkeit.

**Notevarp O., Hjorth-Hansen S. & Monssen A.** - Forsøk med konservering av fisk efter Tallgrens metode ved hjelp av saltsyre og salt. (In norv.). – Stat. Fiskeriförs. stasj. virks. 1934, Årsber. v. Norg. Fisk. 1934, 3, 15-21. Bergen (1936). **b - 2177**

Esperimenti intrapresi alla stazione sperimentale di pesca norvegese per vedere l'influenza dell'acido cloridrico contenuto nella soluzione salina sulla diminuzione dei *Bacteria*. Analisi chimiche e batteriologiche.

**Pagnini U.** - Contributo all'ispezione sanitaria dei pesci conservati. Infestazione da *Ascaris capsularia* (Rud.) nel merluzzo salato ed essiccato (baccalà). – 2 fig., Nuovo Ercolani, XLI, 12, 550-556. Torino (1936). **b - 2178**

Sono stati descritti dei casi di parassitismo nel baccalà da larve di *Ascaris capsularia* (Rud.). Questa forma d'infestazione dovrebbe essere più frequente di quanto possa credersi per l'interessante constatazione della vitalità delle larve in pesci da tempo conservati e in condizioni di vita sfavorevoli.

**Pelliconi A.** - Norme pratiche per esercitare la vigilanza igienica e sanitaria sul commercio del pesce. – Tabl., fig., 86 pp., Man. « Diana » Giannini e Giovannelli. Firenze (1936). **b - 2179**

Criteri da seguire per il miglioramento del servizio di vigilanza igienico–sanitario sui prodotti delle acque destinati al consumo. La pesca, il trasporto, i mercati di consumo, caratteri dei pesci freschi e avariati, impianti per la produzione del pesce conservato.

**Pergola M.** - Scheptofilassi o tachifilassi da principio patogeno (ictioveleno) di origine batterica ricavato da pesci conservati (tonno e sardine sott'olio) guasti. – Giorn. Batteriol. Immunol., XVI, 1, 49-60. Torino (1936). **b - 2180**

Col nome di « ictioveleno » l'A. stabilisce di indicare un principio patogeno per gli animali da esperimento, riscontrato spesso in tonno e in sardine sott'olio in non buono stato di conservazione. Esperimenti di inoculazione endovenosa a dosi varie di detto ictioveleno in conigli, fanno ritenere all'A. di essere in presenza di fenomeni di scheptofilassi o tachifilassi.

**Proctor B. E. & Nickerson J. T. R.** - An Investigation of the Sterility of Fish Tissues. – Journ. Bact., 30, 377-382. Baltimore (1935). **b - 2181**

**Salmon J. & Le Gall J.** - Application de l'ozone au maintien de la fraicheur et à la prolongation de la durée de conservation du poisson frais. – 1 fig., Rev. Trav. Off. Pechês Marit., IX, 1, 33, 57-66. Paris (1936). **b - 2182**

Phénomènes d'altération rapide du poisson, de décomposition de la chair et avantage de la réfrigeration par un enrobage de glace naturelle. Description de la nouvelle méthode par l'emploi de glace stérile et dans une deuxième stade de glace ozonée qui peut être bien utilisée par ses propriétés stérilisantes. Résultats des expériences sur le merlan.

**Weedon H. W. & Notevarp O.** - Forsøk med lagring av fisk i kullsyreholdig atmosfere. (In Norw., Engl. Rés.). – Stat. Fiskeriförs. stasj.

virks. 1934, Årsber. v. Norg. Fisk. 1934, 3, 5-11. Bergen (1936). **b - 2183**

Results of experiments undertaken at the Norwegian Fisheries Experimental station to store fish in an atmosphere containing different concentrations of $CO_2$ compared with storage in air at the same temperature or in dry or melting ice. Appearance, smell and taste; bacterial counts.

**Yamamura Y.** - The Composition of Fish Muscle and Rate of Decomposition. (In Jap., Engl. Rés.). – Bull. Jap. Soc. Scient. Fish., V, 2, 98-102. Tokyo (1936). **b - 2184**

The rate of decomposition, as indicated by the ammonia contents and pH value of fish muscles, was estimated at a constant temperature of 17° C. ((from A.).

**Reichs - Seefischausschuss** - Auch im Sommer Fisch! – Dtsch. Fischwirt., II, 21, 441-442. Berlin (1935). **b - 2185**

Einige vom Reichs-Seefischausschuss gegebene Ratschläge für die zweckmässige Durchführung einer Fischverbrauchswerbung im Sommer: Lager- und Kühleinrichtungen, verschiedene Arten von Propaganda usw.

**An.** - Eröffnung eines Reichsinstituts für Lebensmittel-Frischhaltung in Karlsruhe. – Dtsch. Fisch.-Rundschau, 12, 267-268. Bremerhaven (1936). **b - 2186**

Kurzer Bericht über die feierliche Eröffnung des neuen « Reichsinstituts für Lebensmittelfrischhaltung » an der Technischen Schule in Karlsruhe und zusammenfassende Wiedergabe der bei dieser Veranlassung gehaltenen bedeutsamen Vorträge.

**An.** - Fischeinzelhandel vom Gesichtspunkt des Hygienikers. – Dtsch. Fisch.-Rundschau, 21, 479-481. Bremerhaven (1936). **b - 2187**

Referat eines Berichtes von dem Direktor der Hygienischen Instituts der Techn. Hochschule, Dresden, Prof. K. Süpfle. Notwendigkeit einer Regelung der hygienischen Verhältnisse des Kleinverkaufes.

**An.** - Die britische Fischkonserven-Forschung und ihre Aufgaben. – Dtsch. Fischwirt., III, 31, 493-494. Berlin (1936). **b - 2188**

Kurze historische Uebersicht der britischen Konserven-Forschung. Schaffung eines Forschungsinstituts der Fischkonservenindustrie und dessen Arbeitsbereich.

**An.** - New Process for Chemical Preservation and Coagulation of Fish Licensed to Eastern Fisheries. – Fish & Oyst. Rep., XVII, 11, 6-7 & 11. Tampa, Fla. (1936). **b - 2189**

Chesapeake Bay rendering industry first to adopt this process. Du Pont organization for the manufacture and distribution of chemicals.

**An.** - Holding Fish without Ice. – 4 figs., Fish. Gaz., LII, 3, 9-10 & 16. New York (1935). **b - 2190**

Abridged translation of a more extended article originally appearing in « La Pêche Maritime », Paris, describing the Bellefon-Folliot process for holding fresh fish for 30 days or more without ice.

**An.** - New Chemical Process Introduced in the Fish Rendering Industry. – 1 fig., Fish. Gaz., LIII, 8, 12-13. New York (1936). **b - 2191**

Account of a new chemical process of preservation developed by the Fisheries Expert of U. S. Tariff Commission L. T. Hopkinson, which makes it possible for the fishing vessels to remain at sea as long as desired.

**An.** - Handling Salmon from Fishing Boats to Cannery. – Pacif. Fisherm., XXXIII, 12, 15-16. Seattle, Wash. (1935). **b - 2192**

Responsibility of Fishermen. Sanitation of boats. Freshness of the Fish. Close scrutiny necessary. Carrying the fish. Unloading.

**An.** - Sea Water Refrigeration. New System works out on Tuna Boats, increasing Pay-load Capacity. – 1 fig., Pacif. Fisherm., XXXIII, 12, 25. Seattle, Wash. (1935). **b - 2193**

Description of the newest development for preserving tuna aboard the fishing clippers, sea-water refrigeration used in addition to ice and frost coil chilling systems.

## *Pisces infumati, salati et exsiccati.*

**Bähr O.** - Untersuchungen über den Salz- und Wassergehalt zur Beurteilung von Matjes- und Salzheringen. – 3 Tab., Dtsch. Fisch.-Rundschau, 13, 294-298. Bremerhaven (1936). **b - 2194**

Die Ergebnisse sind in Tabellen wiedergegeben.

**Boury M.** - Fumage et Salage. – 10 figs., Mém. Off. Pêches Marit., 12, Man. Pêches Marit. franç., 4, 19-27. Paris (1936). **b - 2195**

Les salaisons de plusieurs espèces de poissons et particulièrement: le hareng et la morue. Exécution à bord ou à terre. Le saumurage de la sardine, de l'anchois, du maquereau.

**Cooper D. Le B. & Linton E. P.** - The Preparation of Fresh-Fillets of Fish for Smoking. – 5 figs., tabl., Journ. Biol. Bd Canada, III, 1, 1-11. Toronto (1936). **b - 2196**

Controlled experiments on the variables affecting the pre-treatment of fresh fillets for smoking: time for the preliminary ice storage, chemical treatment, drying.

**Croker R. S.** - Smoked, Salted and Dried Sea Foods of California. – 2 graphs., Calif. Fish & Game, XXII, 1, 1-12. Sacramento (1936). **b - 2197**

Methods of preparation and statistical information on: mild cured salmon, smoked fish (cod, mackerel), dried and hardsalted fish (cod, mackerel, sardine, tuna, sea-bass, etc.), salted and pickled fish, salacchini (salt- and pressure - dried pack of sardines), dried shrimp, squid and abalone, tempra and kamaboko.

**Dixon C. A.** - The Smoked Herring Industry. – 3 figs., Canad. Fisherm., XXIII, 2, 9-12. Gardenvale, Que. (1936). **b - 2198**

Methods of processing and handling smoked herring employed in Grand Manan.

**Hilker C.** - Ein Rundgang durch den Landbetrieb einer Salzherings-Gesellschaft. – Dtsch. Fischwirt., II, 48, 893-895. Berlin (1935). **b - 2199**

Einblick in den praktischen Betrieb eines der grössten Reedereibetriebe der deutschen Loggerfischerei an der Weser mit besonderer Berücksichtigung der Böttcherei, der Sortierräume, der Lagerräume, der Schmiede, der Schlosserei, der Zimmerei, des Wasserwerkes. Einige Bemerkungen über den Handel mit deutschen Salzheringen und ihre Rolle in der Volksernährung.

**Ivens H. & Klemmsen I.** - Ueber mechanisches Räuchern. – Dtsch. Fisch.-Rundschau, 7, 144-145. Bremerhaven (1936). **b - 2200**

Vorzüge, in technischer und wirtschaftlicher Beziehung, des neuerfundenen mechanischen Fisch-Räucherns mit Hilfe des «Mechanischen Räucherofens zur fliessenden Fertigung».

**Jansson A.** - Torkning av strömming. (In sved.). – Fiskeritidskr. f. Finl., XLIII, 4, 68-70. Helsinki (1936). **b - 2201**

Descrizione di un metodo di essiccamento di *Clupea sprattus* all'aperto e dentro casa, al fuoco, per ottenere prodotti di alimento per il bestiame.

**Megow F.** - Die schottische Heringssalzung, ein Vorbild für die deutsche Produktion. – Dtsch. Fisch.-Rundschau, 13, 290-291. Bremerhaven (1936). **b - 2202**

Vf. behauptet, dass der feinere Geschmack des schottischen Salzherings gegenüber dem deutschen von der richtigen Wahl des Zeitpunktes für den Beginn der Salzung, von dem Salze selbst und von seiner Menge abhängen. (S. Besprechung von Obst, dies. Ztschr. 14, 309-311).

**Metzner H.** - Zur vorbildlichen schottischen Heringssalzung. – Dtsch. Fisch.-Rundschau, 16, 359-360. Bremerhaven (1936). **b - 2203**

Kritische Bemerkungen zu den in Heft 13 und 14 gemachten Ausführungen von Megow und Obst.

**Obst W.** - Zur vorbildlichen schottischen Heringssalzung. – Dtsch. Fisch.-Rundschau, 14. 309-311. Bremerhaven (1936). **b - 2204**

Kritische Betrachtungen in Bezug auf den Artikel von Megow in n° 13, 1936 derselben Zeitschrift veröffentlicht, mit besonderer Berücksichtigung der Ursachen der Mangelerscheinungen des deutschen Salzherings.

**Schönberg F.** - Wege zur Verbesserung der Haltbarkeit von Räucherwaren. Auch im Sommer lässt sich ein schmackhafter und haltbarer Räucherfisch auf den Markt bringen. – Dtsch. Fischwirt., III, 28, 443-444. Berlin (1936). **b - 2205**

Unter Hinweisung auf seine früheren Veröffentlichungen in Bezug auf die Ursachen der Räucherwarenzersetzung (Ztschr. f. Fleisch- u. Milchhygiene, 1, 5, 1931) und den Keimgehalt in heissgeräucherten Fischen (Die Untersuchung von Tieren stammender Lebensmittel, 2. Aufl. 1936) empfiehlt Vf. die Methode der schwachen Ansäuerung des Pökelbades bei der Herstellung von Fischräucherwaren.

**Hi.** - Die deutsche Salzheringerzeugung. – 1 Tab., Dtsch. Fisch.-Rundschau, 2, 26-27. Bremerhaven (1936). **b - 2206**

Steigerung bei den Loggern. Erneuter Rückgang der Dampfersalzheringserzeugung in 1935.

**The Frontsman** - 1. Producing the popular Finnan Haddock. 2. On Smoking Finnans. – Fish Trad. Gaz., LIII, 2746, 39; 2748, 37. London (1936). **b - 2207**

1. Origin of the name finnan. Old smoking methods. Prescriptions for the curing process. 2. The smoking process.

**An.** - Neue Wege zur Steigerung der Salzheringserzeugung. – Dtsch. Fischwirt., II, 34, 661-662. Berlin (1935). **b - 2208**

Kurzer Bericht über neue Entwicklungen in der Heringsfischerei und in Salzheringerzeugung und- handel.

## *Refrigeratio fructuum piscatus eiusque technica.*

**Belloc G.** - La chambre froide pour la conservation du Germon à bord des thonniers. – 3 fig., Mém. Off. Pêches Marit., 12, Man. Pêches Marit. franç., 4, 50-53. Paris (1936). **b - 2209**

Description de l'installation du procédé Krebs-Alliot à bord du thonnier «Rospico».

**Crosby Field** - What «Flak-Ice» Is and What It Can Do . . . – 3 figs., Fish. Gaz., LII, 3, 13-14. New York (1935). **b - 2210**

Author describes a new type of ice in ribbon form, called «Flak-Ice» which is produced by a patented process of mechanical freezing. Results of the experiences of the first trawler put to sea with Flak-Ice, as well as those of the use of Flakice ribbons in the handling of fish in other services of the fishing industry.

**Ginori Conti G.** - L'uso del ghiaccio secco (anidride carbonica solida) nella conservazione del pesce. – Boll. Pesca, Piscicolt. & Idrobiol., XII, 2, 105-112. Roma (1936). **b - 2211**

Relazione al Convegno di pesca di Bari, nel settembre 1935. Natura e principali proprietà del ghiaccio secco. Considerazioni sull'abbinamento del ghiaccio secco e di quello comune di acqua per la conservazione del prodotto ittico; l'uso di cassette refrigeranti, loro pregi e difetti.

**Hilker C.** - Trockeneiskühlung auf dem Vormarsch. Das letzte Glied in der Kühlkette wird geschlossen. – Dtsch. Fischwirt., III, 28, 441-443. Berlin (1936). **b - 2212**

Bericht über die von einem Trockeneiswerk zusammen mit der deutschen Reichsbahngesellschaft unternommenen Versuchsfahrten.

**McKerlie J.** - Frozen Fish now in Quality Class. – 3 figs., Canad. Fish. Manual, 1935, 69-71. Gardenvale, Que. (1935). **b - 2213**

Description of the many particularly advantageous features of frozen fish which shows that modern freezing methods will revolutionize fresh fish trade in future.

**Plank R.** - Leistungsmessung an einer trokkenen Absorptions-Kältemaschine nach 10-jährigem Betrieb. – Ztschr. f. d. ges. Kälte Ind., XLIII, 4, 80-81. Berlin & München (1936). **b - 2214**

**Reay G. A.** - Freezing and Cold-Storage of Herrings. – 1 table, Fish Trad. Gaz., LIV, 2785, 41-42. London (1936). **b - 2215**

Survey of cold storage of five different types of herring: external and internal condition. Kippers examined; Freezing in air. White Fish.

**Schvinte J.** - L'application du froid à l'industrie de la pêche. – 6 figs., Mém. Off. Pêches Marit., 12, Man. Pêches Marit. franç., 4, 39-50. Paris (1936). **b - 2216**

Les procédés Larsen et Bellefon-Folliot de réfrigeration et les procédés Ottesen, Dahl, Piqué, Zarotschenzeff de congélation. Les principales sociétés françaises. Possible développement de l'industrie de la conservation du poisson par le froid.

**Tatsuno S. & Nito K.** - Effects of Freezing on the Thermal Conductivity of Fish Muscles I. (In Jap., Engl. Summ.). – 1 fig., 1 table,

Bull. Jap. Soc. Scient. Fish., V, 1, 42-44. Tokyo (1936). b - 2217

Results of measurements of thermal conductivity of tuna, shark, and yellowtail muscles in fresh, frozen and melted states, by the comparative method, in which a glass plate was used as standard.

**Tuschschneid M. W.** - Die kältetechnologische Verarbeitung schnellverderblicher Lebensmittel. – 500 S., 150 Abb., Brücke-Verlag Kurt Schmersow. Kirchhain N.-L. (1936). b - 2218

Ein Teil dieses Werkes bezieht sich auf die kältetechnologische Verarbeitung von Fischen und Fischerzeugnissen: Kühlung, Lagerung, Gefrieren, Auftauen von gefrorenen Fischen usw.

**An.** - Dry Ice Humidified Refrigeration. – 2 figs., Canad. Fisherm., XXIII, 2, 13. Gardenvale, Que. (1936). b - 2219

Description of carbo-ice humidified show-case and fish cabinet which regulate the supply of moisture to keep the cool air properly humidified and the food products better preserved.

**An.** - Elektrische Fisch-Kühl-Truhe. – Dtsch. Fisch.-Rundschau, 6, 120. Bremerhaven (1936). b - 2220

Beschreibung einer praktischen Fisch-Kühl-Truhe, welche nach dem bewährten Trockenabsorptionsverfahren arbeitet, ohne Motor, ohne Kompressor, und ohne bewegliche Teile.

**An.** - Trockeneis beginnt sich durchzusetzen. – 3 Abb., Dtsch. Fisch.-Rundschau, 13, 287-289. Bremerhaven (1936). b - 2221

Kurzer Bericht über die Einführung des Trockeneises in die deutsche Fischindustrie.

**An.** - Hat gefrorener Fisch eine Zukunft ? – 2 Abb., Dtsch. Fisch.-Rundschau, 21, 480-481. Bremerhaven (1935). b - 2222

Einige Betrachtungen über die Anwendung des Tiefkühlverfahrens in der Fischerei und über seine Entwicklungsmöglichkeiten in Deutschland.

**An.** - Fisch und Kälte. – Dtsch. Fisch.-Rundschau, 24, 549-550. Bremerhaven (1935). b - 2223

Bericht über die Eröffnung einer Kälteabteilung im Institut für Seefischerei zu Wesermünde. Wortlaut der am Eröffnungstage vom Direktor des Instituts, Herrn Dr. Lücke, gehaltenen Rede, welche das Arbeitsziel der neuen Abteilung schildert.

**An.** - Eine neue Kühlvorrichtung für Seefische. Die deutsche Industrie arbeitet an der Lösung des Problems einer zweckmässigen Kühlung. – 1 Abb., Dtsch. Fischwirt., III, 12, 180. Berlin (1936). b - 2224

Beschreibung der sogenannten Siemens-Fischkühltruhe.

**An.** - Amtliche norwegische Frischhaltungsversuche mit « Trockeneis ». – Dtsch. Fischwirt., III, 27, 436. Berlin (1936). b - 2225

Kurze Notiz über die bei der staatlichen Fischereiverssuchstation in Oslo in Zusammenarbeit mit einer grossen Kohlensäurefabrik und den norwegischen Staatsbahnen ausgeführten Versuche.

**An.** - The cold Storage of Herrings. – Fish Trad. Gaz., LIII, 2750, 32. London (1936). b - 2226

Tests to determine keeping properties carried out at the Porry Research Station, Aberdeen.

**An.** - Questions and Answers on Fish Freezing and further Investigations into Cooling Rates of Fish. – Fish Trad. Gaz., LIV, 2766, 20. London (1936). b - 2227

Relations between « time » and « thickness » frozen. Salmon portions rapidly frozen at 0° F.

**An.** - Refrigeration on Tuna Boats. – 2 figs., Fish. Gaz., LIII, 8, 28-29; 9, 17. New York (1936). – b - 2228

Development of the West Coast Tuna fisheries and the introduction of modern refrigeration forecast prosperous era ahead.

**An.** - Exceptional Care in Fish Freezing. – 1 fig., Pacif. Fisherm., XXXIII, 10, 43. Seattle Wash. (1935). b - 2229

Description of the fish cold storage department of the Northwestern Ice & Cold Storage Co. in Portland.

**An.** - La stazione frigorifera di Madrid. 9 fig., Riv. Freddo, 2, 55-60. Roma (1935). b - 2230

Descrizione particolareggiata di questo impianto che è, forse, il più recente d'Europa. Una caratteristica notevole si ha nel fatto che il raffreddamento è ottenuto con circolazione di salamoia.

## *De fructibus piscatus vario modo confectis.*

**Boury M.** - Conserves en boîtes hermétiques. – 19 fig., Mém. Off. Pêches Marit., 12, Man. Pêches Marit. franç., 4, 28-38. Paris (1936). b - 2231

La fabrication de la conserve de sardines et modifications à apporter pour le perfectionnement du système classique: Le thon blanc ou germon et son traitement dans les usines de Bretagne et de Vendée; les filets de thon. La conserve du hareng en marinade, et des crustacés en saumure. La conserve de la coquille de Saint-Jacques localisée dans la rade de Brest.

**Brinkmann E.** - Vollkonserven aus Magerfischen. – Dtsch. Fisch. –Rundschau, 14, 311-312. Bremerhaven (1936). b - 2232

Ueber die Möglichkeit auch in Deutschland Vollkonserven aus Magerfischen zu bereiten.

**Chipman H. R. & Gray R.** - Methods of Handling Fish. III. Instructions in Curing and Packing Pickled Herring by the Canadian Method. – 5 figs., Bull. Biol. Bd Canada, LII, 1-2. Ottawa (1936). b - 2233

Preparation of pickled herring: condition of the fish, cutting, washing, curing, packing. How to make a simple salinometer.

**Dancey A. W.** - The Art of Cutting Fish. Care with Knife stops Waste and Adds to Profits. (In Engl. & French). – 1 fig., Canad. Fisherm., XXIII, 11, 49-53. Gardenvale, Que.(1936). b - 2234

Halibut and Cod. Haddock fillets. Filleting flounders. Selling the waste parts.

**Jarvis N. D. & Griffiths F. P.** - The Home Canning of Fishery Products. – 5 figs., U. S. Dpt. Comm., Bur. Fish., Invest. Rep., 34, II, 1-16. Washington D. C. (1936). b - 2235

The U. S. Bureau of Fisheries having received numerous requests from various public and private agencies and individuals for information on home-canning methods, has initiated an investigation on home canning with the aim to develop new processes and methods, and to endeavor to correct improper and dangerous processes and practices. The results of this investigation are reported in the present paper.

**Kawaguchi T., Simizu Z., Tani S. & Yui T.** - Difference of Chemical Composition in Various Parts of Canned Crab (*Paralithodes camtschatica*) (In Jap.; Engl. Rés.). – 2 tabl., Bull. Jap. Soc. Scient. Fish., IV, 6, 415-417. Tokyo (1936). b - 2236

Influence of the pH-value, amount of volatile basic nitrogen, copper, iron, and total sulfur on the degree of various examined parts of three canned crab-meat.

**Weedon H. W. & Notevarp O.** - Konservering av torskefileter med vinsyre. (In Norw., Engl., Rés.). – Stat. Fiskerifors. stasj. virks. 1934, Årsber. v. Norg. Fisk. 1934, 3, 12-14. Bergen (1936). b - 2237

Experiments of conservation of codfillets with tartaric acid compared with treatment with chlorine. The tests show the necessity of trying out new methods.

**Imperial Fisheries Experimental Station (Japan)** - Experimental Preparation of Fish for Canning of small Mackerels in Oil. (In Jap.). – Fish. Invest., Suppl. Rep. 3, Paper No 34, 45. Tokyo (1936). b - 2238

**Sender** - Dogfish – and how to skin them. – Fish Trad. Gaz., LIII, 2749, 37. London (1936). b - 2239

Prescriptions for the preparation of Dogfish into « Flake ».

**An.** - The Handling of Shucked Scallops. – Canad. Fisherm., XXII, 9, 18. Gardenvale, Que. (1935). b - 2240

Some considerations as to the failure of the industry of the shucked scallops to obtain the possible maximum returns.

**An.** - Canada produces many Kinds of canned Fish. (Engl. & French). – 2 figs., Canad. Fisherm., XXIII, 9, 48-50. Gardenvale, Que. (1936). b - 2241

Alphabetical list of about 18 species.

**An.** - Yellowfin canned Tuna a distinctly American Delicacy. – 1 fig., Pacif. Fisherm., Yearbook 1935, 127. Seattle, Wash. (1935). b - 2242

Increasing popularity. Species used for canning. Preparation.

**An.** - Canned Mackerel the Newcomer in the Million-Case Class. – 1 fig., Pacif. Fisherm., Yearbook 1935, 145. Seattle, Wash. (1935). b - 2243

Begin of the commercial production. General notes on mackerel. Catching methods. Outstanding characteristics of canned mackerel.

## *Officinae fructibus piscatoriis conficiendis et conservandis – Thecae – Industria.*

**Brinkmann E.** - Die Mechanisierung in der deutschen Fischindustrie. – 3 Abb., Dtsch. Fisch. - Rundschau, 11, 240-243. Bremerhaven (1936). b - 2244

Stellungsnahme zu verschiedenen Patenten in bezug auf die Mechanisierung in der deutschen Fischindustrie, mit besonderer Berücksichtigung der Konserven-Fabrikation.

**Elden A.** - Black's Harbour Sardine Plant is Self- Contained Industry. – 3 figs., Canad. Fisherm., XXIII, 10, 12-15. Gardenvale, Que. (1936). b - 2245

History and description of the plant, production, shipping.

**Ellender H. C.** - Shrimp Canneries in full Swing in Louisiana giving Employment to Hundreds of Persons. – 1 fig., Fish & Oyst. Rep., XVII, 10, 4-5, 12-13. Tampa, Fla. (1936). b - 2246

Description of Terrebonne's four shrimp canneries.

**Gire G.** - Essais de porosité des fers-blancs. – 7 fig., Rev. Trav., Off. Pêches Marit., VIII, 4, 423-429. Paris (1935). b - 2247

L'A. cherche à préciser une méthode simple et rapide, susceptible de fixer la physionomie de la porosité totale du fer blanc. Essais de porosité pratiqués actuellement: Essai au ferricyanure de potassium. Essai à l'eau chaude. Essai de porosité par sulphuration électrolyse: Dégraissage et préparation des échantillons. Sulfuration.

**Gire G.** - De l'établissement pour les fers-blancs, d'un coefficient de résistence à la corrosion. – 11 fig., 2 tabl., Rev. Trav. Off. Pêches Marit., IX, 4, 36, 421-436. Paris (1936). b - 2248

Constitutions des fers-blancs. Résistance chimique et mécanique des constituants du fer-blanc. Etablissement et interprétation des courbes d'attaque par l'acide acétique. Epreuve de porosité par sulfuration électrolytique.

**Hess E.** - Lobster Canneries Must be Kept Clean. – Canad. Fisherm., XXII, 7, 8. Gardenvale, Que. (1935). b - 2249

Sanitary prescriptions, best way of disinfecting the interior of the cannery.

**Hesse K.** - Bombagen bei Vollkonserven. – Dtsch. Fisch. - Rundschau, 2, 30-32. Bremerhaven (1936). b - 2250

Vf. weist auf die Ursachen vorkommender Bombagen bei Vollkonserven hin und bespricht die Massnahmen, welche es ermöglichen dieselben bei der Fabrikation fast glatt auszuschalten.

**Miyosi F. & Hirose I.** - Relations among the Inspected Items for Cans. (In Jap., Engl. Rés.). – 6 diagr., Bull. Jap. Soc. Scient. Fish., V, 4, 247-248. Tokyo (1936). b - 2251

Statistic records for pink-salmon cans concerning colour, texture and odour.

**Okada M., Yamaguti F. & Sinoda M.** - Tones Emitted by Cans at the Inspection by Tapping. Preliminary Report I. Relation of Pitch of the Tones to the Weight of Salmon Cans. (In Jap.; Engl. Summ.). – 2 figs., 5 tabl., Bull. Jap. Soc. Scient. Fish., V, 1, 47-50. Tokyo (1936). b - 2252

By means of resonators of Helmholtz's type tones emitted by ½ Lb salmon cans when struck on the upper end were analysed with respect to their pitch. It is shown that the heavier the can is packed, the lower is the pitch of each partial tone. A correlation coefficient between the pitch and the weight of the cans has been provisionally determined.

**Okada M., Yamaguti K. & Sinoda M.** - Tones Emitted by Cans at the Inspection by Tapping. Prel. Rep. II. Weight of Contents and the Tones of Salmon Cans. (In Jap., Engl. Rés.). – 3 figs., 1 table, Bull. Jap. Soc. Scient. Fish., V, 4, 242-244. Tokyo (1936). **b - 2253**

That the pitch of partial tones emitted from ½ Lb. salmon cans has a negative correlation to the weight of net content of cans is ascertained. The correlation is, however, not very high owing to the variation of the weight of emptied cans which is itself negatively correlated with the pitch of tones. The partial correlation coefficients are significant. (A. A.).

**Tjötta L. L.** - Winke für die Einrichtung eines Vollkonservenbetriebes. – Dtsch. Fischwirt., II, 21, 446-447. Berlin (1935). **b - 2254**

Ratschläge für eine zweckmässige Einrichtung eines Vollkonservenbetriebes, welcher eine vollständig einwandfreie Ware auf den Markt liefern kann.

**Tomimasu K.** - Measuring of the Vacuity of Full Cans by the Elastic Deflexion of their Upper and Lower End Plates. II. Finding Out of the Most Adequate and Accurate Scale of the Vacuity for the « Dial Vacuum Tester ». (In Jap., Engl. Summ.). – 4 pls., 10 figs., Bull. Jap. Soc. Scient. Fish., V, 1, 56-71. Tokyo (1936). **b - 2255**

Results of measurements of the relation between the vacuity and the depth of the top or bottom end plates of full cans. Description and interpretation of the v-β diagrams elaborated.

**Tomimasu K.** - Measuring of the Vacuity of Full Cans by the Elastic Deflexion of their Upper and Lower End Plates. III. Pneumatic Vacuum Tester. (In Jap., Engl. Rés.). – 6 figs., 2 tabl., Bull. Jap. Soc. Scient. Fish., V, 4, 255-261. Tokyo (1936). **b - 2256**

Description of a new vacuum testing apparatus utilizing the pneumatic micrometer. Results obtained by measuring the vacuity of pink-salmon 1 Lb. cans circulated in market.

**Williams R. H.** - Early New Brunswick Lobster Canners, Bay of Fundy District. – Canad. Fisherm., XXIII,7, 11. Gardenvale, Que. (1936). **b - 2257**

Story of the first established canneries in New Brunswick, of which the very first has been founded in 1839.

**An.** - Aluminium ein neues Dosenmaterial der Fischkonservenindustrie. Eine norwegische Herstellerfirma gibt Erfahrungen bekannt. – Dtsch. Fischwirt., III, 51, 854-855. Berlin (1936). **b - 2258**

An Hand des wertvollen Untersuchungsmaterials und der Prüfungsergebnisse der « Aktieselskapet Norsk Aluminium Company » wird hier über die vorteilhafte Verwendung von Aluminium berichtet.

**An.** - World Pack of Canned Salmon Largest in the History. – Fish. Gaz., Ann. Rev. Numb., 89. New York (1935). **b - 2259**

Statistical data of the world pack of canned salmon in 1934, which seems to be the largest in the history of the industry.

**An.** - New Unloading and Storage Plant for General Seafoods. – 1 fig., Fish. Gaz., LIII, 8, 13 & 30. New York (1936). **b - 2260**

Information on a wharf holding building under construction in connection with the General Seafoods Building at Boston's Fish Pier.

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